Description of document: US Army (and other) records re: Cluster of Infant Botulism Cases at Fort George G. Meade, Maryland in 2006

Requested date: 05-October-2007

Released date: 10-March-2008

Posted date: 21-March-2008

Source of document: Department of the Army
US Army Claims Service
Office of the Judge Advocate General
Fort George G Meade, Maryland

The governmentattic.org web site (“the site”) is noncommercial and free to the public. The site and materials made available on the site, such as this file, are for reference only. The governmentattic.org web site and its principals have made every effort to make this information as complete and as accurate as possible, however, there may be mistakes and omissions, both typographical and in content. The governmentattic.org web site and its principals shall have neither liability nor responsibility to any person or entity with respect to any loss or damage caused, or alleged to have been caused, directly or indirectly, by the information provided on the governmentattic.org web site or in this file.
March 10, 2008

\[ 
\text{This letter is in response to your Freedom of Information Act (FOIA) request which was received in this office on October 5, 2007. You requested a copy of “all correspondence, letters and emails and ANY other type of communication, with CHHPM and anyone involved in the investigation on Fort George G. Meade, Maryland in October 2006 and December 2006.” The enclosed compact discs provide the information requested. I apologize for the delay.}

\text{The documents contain personal information and that information has been redacted. Generally, the redacted information consists of the names, social security numbers, home addresses, home and work telephone numbers, medical information and personal information of private individuals and DoD employees. Release of this information would constitute an unwarranted invasion of privacy (FOIA Exemption 6).}

\text{The partial denial of your request for materials which are not being released is made on behalf of Major General Scott C. Black, The Judge Advocate General of the Army. You may appeal this determination by writing to the Commander, U.S. Army Claims Service, 4411 Llewellyn Avenue, Fort George G. Meade, MD 70755-5360 within 60 calendar days of your receipt of this letter. Both the letter and the envelope should be clearly marked, “Freedom of Information Act/Privacy Act Appeal.” I will then forward your appeal to the General Counsel, Department of the Army, who will notify you directly of his decision.}

\text{Sincerely,}

\text{Kathleen Kelly}\n\text{Major, US Army}\n\text{Executive Officer}

Enclosures \]
Hi,

I can tell you that my Preventive Medicine personnel are aware of this issue and are working on it. I will have them forward you a summary and update.

Laurie

LTC [redacted], I am under the impression that this was not an issue of concern for the installation, please advise and summarize the botulism cases and issues as they pertain to Ft Meade (minus specific PHI). Thank you

"Army Strong--One Team"

Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
DSN 622-

-----Original Message-----
From: [redacted]@us.army.mil
Sent: Tuesday, January 09, 2007 4:12 PM
To: [redacted]@us.army.mil
Subject: Botulism

We just received a call from a [redacted] reporting that two months ago he had taken his 9-month old to Walter Reed. He received a call from CDC today to get information from him. The caller indicated there had been another Ft. Meade [redacted] Can you check on this for me and let me know if we have any public health issues we should address? As I understand it, infant botulism (the majority of all reported cases) results primarily from feeding the child honey or corn syrup or other sweetener before age 1. The Marine is [redacted]
this thing is about to hit the press. The in October, were called today by the CDC and informed that there was another case on Ft. Meade. He told her they would be coming tomorrow to check environmental factors. I need someone to put me in touch with the right folks in the medical line so that I know what is going on and whether there is some sort of environmental threat posing a hazard to the residents of Ft. Meade. I'm at the office. Please call me at ASAP. I've got my PAO and Picerne's PAO in the office and my Environmental guy standing by.

-----Original Message-----
From: [mailto: Hammond@amedd.army.mil]
Sent: Tuesday, January 09, 2007 6:53 PM
To: KACC-Ft Meade
Subject: RE: Botulism

Hi,
I can tell you that my Preventive Medicine personnel are aware of this issue are working on it. I will have them forward you a summary and update.

I am under the impression that this was not an issue of concern for the installation, please advise and summarize the botulism cases and issues as they pertain to Ft. Meade (minus specific PHI). Thank you.

"Army Strong--One Team"

COT. MC

Meade MEDDAC and
Kimbrough Ambulatory Care Center
DSN 622-

-----Original Message-----
From: [mailto: @us.army.mil]
Sent: Tuesday, January 09, 2007 4:12 PM
To: KACC-Ft Meade
Subject: Botulism

We just received a call from reporting that two months ago he had taken his to Walter Reed. The child was He received a call from CDC today to get information from him. The caller indicated there had been two Ft. Meade. Can you check on this for me and let me know if we have any public health issues we should address? As I understand it, infant botulism (the majority of all reported cases) results primarily from feeding the child honey or corn syrup or other sweetener before age 1. The Marine is
FYI

-----Original Message-----
From: [Redacted] Mr WRAMC-Wash DC
Sent: Monday, January 08, 2007 7:18 AM
To: [Redacted] [Redacted] [Redacted] WRAMC/Wash DC; [Redacted] [Redacted] Ms KACC-Ft Meade
Subject: Botulism Case

Contact Names and numbers:

COL [Redacted], AN, C, WRAMC/NARMC Army Public Health Nursing
On TDY (NJ ) week of 8 Jan 07. Reachable through Blackberry/Cell
WRAMC Office number [Redacted]

LTC [Redacted], RN, MPH
Jan 07. Reachable through Blackberry/Cell
WRAMC/NARMC On TDY (NJ) week of 8
WRAMC Office number [Redacted]
Cell: [Redacted]
Calls to after business hours will automatically route to his cell and home numbers.

LTC [Redacted], AN, C, Prev. Med.
Fort Meade, MD. (However on the Outlook she is [Redacted])
Tel: [Redacted]

Dr. David Blythe, MD Maryland State Epidemiologist
Office in Baltimore
Office 410-767-6685 Cell: [Redacted]

ALCON:

Dr. Blythe called me at home at about 1800 hours Friday, 5 Jan 07, about the Botulism cases at Fort Meade. I advised him that the

[Redacted]

He indicated that there is keen interest in following up on these two cases by the State of Maryland, CDC, and the research facility in California doing work on Infant Botulism.

Dr. Blythe also indicated that he had been doing some work that day on developing an investigation strategy to include a questionnaire etc. While the current Public Health position on Infant Botulism is that it is not a person to person spread, the people working with research are not so sure. (might be fecal oral)
I advised Dr. Blythe that while both of these cases lived close to each other (one or two buildings away on the same street) that there was no indication from Mom or Dad of the child now in the hospital when I interviewed them both that they knew of another case of Botulism on post. This was also the impression that the I.D. Resident had when he interviewed the parents as well.

Dr. Blythe’s concern was “access” to Fort Meade to do the study. I indicated that this should be no problem, and that his point of contact was . Copies of all reports submitted to the State of Maryland, have been faxed to Ms. APHN, Fort Meade, and I discussed the cases with later in the afternoon before COB Friday as well. Dr. Blythe indicated in our conversation that he would be calling first thing Monday a.m.

I gave Dr. Blythe, 24/7 number , advising him as the Medical POC for this or any other Public Health Issue at WRAMC. Dr. Blythe indicated that he did not feel it was necessary for him to contact that evening. He did indicate that there was an urgency to this investigation because we have two neighbors with cases and there might be other children infected, so getting to the bottom of any connection between these cases is vital, and it is also important for the Medical Community serving Fort Meade, to be aware of this possibility, without causing panic in the community. Because there are so few cases a year (100 nation wide) they don’t have an incubation period for this disease.

My sense on this “investigation” is that the State of Maryland working in conjunction with “Public” Health: CDC, and the research facility in CA will take the lead, but that there is an Army “Public” Health counterpart assigned to each of the Maryland team member functions, so that the investigation, with papers published, etc., reveals that this was a team effort between Army and Public Health, and how well the synergistic effort went!

Mother of the child who is now in the hospital, is at the . Dad is a works as the at , both strictly in office positions. The family has no other children.

I just now faxed a copy of the records of the child from Fort Meade who had the infant botulism in October. (0730 8 Jan 07)

V/R

[RN. DSN 662]
From: OTSG
Sent: Wednesday, January 10, 2007 11:37 AM
To: KACC-Ft Meade
Cc: CC-Ft Meade; OTSG
Subject: FW: Infant Botulism (UNCLASSIFIED)

Attachments: EXSUM Infantile Botulism at Fort Meade.doc

EXSUM Infantile Botulism at Fort Meade.doc

Classification: UNCLASSIFIED
Caveats: NONE

called and left a voice mail message for you. I asked him to author a prelim EXSUM with information that provided us. We were informed through Public Affairs channels at OTSG that this was an issue.

Attached is the EXSUM we sent to OPS 21. Would you please provide updated EXSUMs with more detail, following your investigation.

MC
FPPM
Proponent for Preventive Medicine
Office of the Surgeon General
DSN: 761

Classification: UNCLASSIFIED
Caveats: NONE
EXECUTIVE SUMMARY

10 JAN 07

(U) INFANT BOTULISM CASE AT FORT MEADE. (U) (DASG-PPM-NC) This is a self-generated EXSUM.

apparently live in close proximity to each other and there is some concern that these two cases may be related. Additional information will be provided when available. PREPARE MEMO______.

[DASG-PPM-NC]  
APPROVED BY: 

UNCLASSIFIED
Heads up. No request for direct assist from us at this point. Has hit as a PAO issue.

We've sent this forward to leadership as a prelim EXSUM, pending further information out of Ft. Meade.
UNCLASSIFIED

EXECUTIVE SUMMARY

10 JAN 07

(U) INFANT BOTULISM CASE AT FORT MEADE. (U) (DASG-PPM-NC) This is a self-generated EXSUM. Apparently live in close proximity to each other and there is some concern that these two cases may be related. Additional information will be provided when available. PREPARE MEMO________.

[Redacted]

APPROVED BY[Redacted]

UNCLASSIFIED
Sir,

This is message I received from.

-----Original Message-----
From: OTSG
Sent: Wednesday, January 10, 2007 9:41 AM
To: Ms USACHPPM
Subject: FW: Infant hospitalized in October (UNCLASSIFIED)

Please check with to see if CHPPM is involved in investigating this situation of October.

Public Affairs and Marketing
OTSG/MEDCOM
DSN @us.army.mil

This message is intended only for the named recipients and may contain information that is privileged or exempt from disclosure under applicable law. Information contained in this correspondence may be subject to the Privacy Act of 1974 (5U.S.C. 552a). Personal information contained in this correspondence may be used only by authorized persons in the conduct of official business. Any unauthorized disclosure or misuse of personal information may result in criminal and/or civil penalties. If you are not the intended recipient of this correspondence please destroy all copies of this correspondence after notifying the sender of your receipt of it.

-----Original Message-----
From: OTSG
Sent: Wednesday, January 10, 2007 9:23 AM
To: OTSG
Cc: OTSG; Ms OTSG; OTSG
Subject: RE: Infant hospitalized in October (UNCLASSIFIED)

First I've heard of it! We'll see what we can find out.

PPM
Prepounity for Preventive Medicine
Office of the Surgeon General
DSN: 761

-----Original Message-----
From: OTSG
Sent: Wednesday, January 10, 2007 8:48 AM
To: OTSG; OTSG; OTSG; OTSG
Cc: OTSG; OTSG; OTSG; OTSG
Subject: FW: Infant hospitalized in October (UNCLASSIFIED)
Importance: High

Classification: UNCLASSIFIED
Caveats: NONE

Col

Please see email below ref botulism, Fort Meade.
Do you have additional insight on this one?
Thanks.

Public Affairs and Marketing
OTSG/MEDCOM

This message is confidential, intended only for the named recipient(s) and may contain information that is privileged or exempt from disclosure under applicable law. Information contained in this correspondence may be subject to the Privacy Act of 1974 (5 U.S.C. 552a). Personal information contained in this correspondence may be used only by authorized persons in the conduct of official business. Any unauthorized disclosure or misuse of personal information may result in criminal and/or civil penalties. If you are not the intended recipient of this correspondence please destroy all copies of this correspondence after notifying the sender of your receipt of it.

-----Original Message-----
From: [army.mil]
Sent: Tuesday, January 09, 2007 7:53 PM
To: OTSG; OTSG; OTSG; OTSG; OTSG
Cc: OTSG; OTSG; OTSG; OTSG
Subject: Infant hospitalized in OCTOBER.

EXSUM

January 9, 2007
For Official Use ONLY
Do NOT RELEASE

Response to Query:

The family told Fort Meade officials late yesterday that their infant son was hospitalized in October for "Botulism." The family says the child has since recovered.

The Preventative Medicine Office at Kimbrough and Fort Meade Officials are investigating the situation.

Response to Query about the second case:

We are not aware of any additional cases at this time. But we are always concerned about all service members and their families' health issues.
Centers for Disease Control (CDC) called [REDACTED] and informed her that a 2nd case has been confirmed on Fort Meade today.

Major [REDACTED] was the Pediatrics doctor.

The family said the CDC investigator implied that a debris pile located on the corner of Clark Road may be the source of the airborne Botulism.

[REDACTED] confirmed that there were complaints of a dust cloud in the area and Picerne Military Housing agreed to water the area down. The debris pile consists of crushed concrete.

Potential issues are yet to be investigated:

We have a meeting with the commander at 8:00 in the morning in his office.
Will keep everyone notified.

(CBS-Channel 9 WUSA may pick up the story. Fort Meade PAO was notified by DINFOS PAO that the wife of the family wanted to have them at her house last night. But Fort Meade PAO informed the family that all media coming to the installation must be escorted by our office.)
Thanks--will look for the revised fact sheet. There have been no media queries here (and likely will not be unless Fort Meade refers someone to me). Should I get a query, I will refer anything about Kimbrough to the Fort Meade office.

I'm preparing short responses on what an epicon is, what the composition of this one is, what its methods will be. Main message is usually that CHPPM supplements expertise at the medical facility. When I get a draft, I will forward it to you for review/approval, as well as our DEDS.

Had contacted [name] (whom I've met) and someone called [name] via email, and have now left voice mail for [name].

U.S. Army Center for Health Promotion & Preventive Medicine

USACHPPM: Saving Lives & Resources -- Prevention is the Key.

-----Original Message-----

I will get you the fact sheet that was distributed to the Ft Meade Community. We made modifications to this last evening and what you received from CHPPM was not the final version. Respectfully request that, if you have questions about PAO activity here at Ft Meade, you contact the Ft Meade PAO.

Thank you,

"Army Strong--One Team"

[Signature]
From: Ms USACHPPM
Sent: Thursday, January 11, 2007 12:02 PM
To: Mr USACHPPM
Cc: Mr USACHPPM; USACHPPM; WRAIR-Wash DC; Ms USACHPPM; USACHPPM-Wash DC; KACC-Ft Meade; USACHPPM; KACC-Ft Meade; USACHPPM; USACHPPM; Mr USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

May I have a copy of the approved botulism fact sheet?

Thanks,

USACHPPM: Saving Lives & Resources—Prevention is the Key.

From: Mr USACHPPM
Sent: Wednesday, January 10, 2007 3:28 PM
To: Mr USACHPPM; USACHPPM; USACHPPM-Wash DC; KACC-Ft Meade; USACHPPM; KACC-Ft Meade; USACHPPM; USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

Importance: High

Just got off the phone with CDR Kimbrough ACC and her staff regarding the two cases of infant botulism from the Ft Meade community.

They're requesting our assistance to address the issue and have requested an
A big concern is the risk of infection from exposure to contaminated soil. There's construction near the housing area where the two cases reside that's created a large debris pile of soil, concrete, etc. Local residents and the Ft Meade Garrison Command are very concerned that this may be the cause of the two infections.

There's been interest from outside medical organizations to help respond to this.

The POC at KACC is the Chief of PM, (email above, please ensure all communication is routed thru her so that we have a single message.)

They're sending up a draft press release (attached) and botulism fact sheet that need to be reviewed NLT 1700 today. They're also looking for assistance drafting an article for the Ft Meade newspaper to help inform the community. This will require RISKCOM support. Coordinate w/DDEDS (within the office today.)

Please copy the USACHPPM-EOC w/all emails.

DDEDS should prepare a daily consolidated exsum for the CG until this matter is over.

-----Original Message-----
From: COL USACHPPM
Sent: Wednesday, January 10, 2007 11:20 AM
To: WRAIR-Wash DC; USACHPPM-Wash DC; USACHPPM
Cc: Mr USACHPPM; Mr USACHPPM;
Subject: FW: Infant Botulism (UNCLASSIFIED)

Heads up. No request for direct assist from us at this point. Has hit as a PAO issue.

-----Original Message-----
From: TSG
Sent: Wednesday, January 10, 2007 11:12 AM
To: COL USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

We've sent this forward to leadership as a prelim EXSUM, pending further information out of Ft. Meade.
All,

We are working on questions and will have to you soon. Current status is and will travel to FT Meade and meet with Chief PM at Meade at 1600 today to discuss questionnaire and plan for tomorrow's launch of EPICON(-). will provide list of needed resources after that meeting. Minimum going out tomorrow from CHPPM will be and myself. At 1000 hours tomorrow we will meet at Fort Meade PM office Maryland PH representative (possible state epidemiologist Dr. David Blythe), Meade staff to interview parents of cases. Based on common exposures from those interviews will direct further actions (food, environment, Child development center...). Fort Meade possible support arranged includes: Veterinary support and CHPPM-North. Should environmental sampling be required technical reachback includes: CHPPM lab support arrangement... and Maryland Public health labs.

We are currently arranging a teleconference with CDC and other environmental exposure intestinal botulism experts, developing a questionnaire, reviewing risk communication/pao products and preparing to launch.

That is a short update from my vantage point.

-----Original Message-----
From: Mr USACHPPM
Sent: Thursday, January 11, 2007 2:38 PM
To: Ms USACHPPM
Cc: Mr USACHPPM; Ms USACHPPM; USACHPPM; CHPPM North-FT Meade; USACHPPM-Wash DC; Mr USACHPPM; COL KACC-Ft Meade; Mr LMI; Ms USACHPPM; dblythe@dhmh.state.md.us
Subject: FW: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

As discussed, questions.

Let me know how I can assist.

-----Current Operations
DCSOPS, USACHPPM
DSN xxx, xxx, fax

-----Original Message-----
From: Ms USACHPPM
Sent: Thursday, January 11, 2007 2:33 PM
To: Mr USACHPPM; USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED) - EPICON REQUESTED

Just talked with -- he's working my request for info.

-----Original Message-----
From: Ms USACHPPM
Sent: Thursday, January 11, 2007 2:32 PM
To: Mr USACHPPM
Cc: Mr USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED) - EPICON REQUESTED

I have about 10 questions that I forwarded to on epicon details that would likely be asked by inquiring media reps. They are attached. Need ops to provide accurate answers to all those that don't refer to the fact sheet, today if possible.

I've had no inquiries so far. Mr. told me he let Kimbrough know that we could respond to query if needed.

I have contacted the Fort Meade public affairs office requesting a copy of the final news release and getting them know that people from here will be supplementing Kimbrough for purposes of epidemiological investigation.

-----Original Message-----
From: Ms USACHPPM
Sent: Thursday, January 11, 2007 11:19 PM
To: Mr USACHPPM
Cc: Mr USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED) - EPICON REQUESTED

If you have a question, please check with the EOC first. This way we prevent emails going to 15 people and 15 people responding and another 15 email messages and so on. Our leadership does not need to see every message string for simple staffing questions (that is why we have the EOC). This process also prevents those that are supporting the mission to rely on the EOC to disseminate the information (not PAO stuff), situation reports, etc.

All info flows through the EOC, so we have the latest versions. The great folks in Risk Communication always keep OPS in the loop.

Thanks!

-----Original Message-----
From: 
Sent: Thursday, January 11, 2007 12:06 PM
To: Ms USACHPPM; Mr USACHPPM
Cc: WRAIR-Wash DC; Ms USACHPPM; USACHPPM-WOC; WRAIR-Wash DC; Ms USACHPPM; USACHPPM-WOC; Ms USACHPPM; Mr USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED) - EPICON REQUESTED

is the latest version.

-----Original Message-----
From: MAJ USACHPPM
Sent: Thursday, January 11, 2007 12:53 PM
To: Ms USACHPPM; Mr USACHPPM
Cc: Mr USACHPPM; USACHPPM; USACHPPM-EOC;
This is the last I saw of this coming out of DEDS. I agreed with the changes.

-----Original Message-----
From: Ms USACHPPM
Sent: Thursday, January 11, 2007 12:02 PM
To: Mr USACHPPM
Cc: WRAIR-Wash DC; USACHPPM; USACHPPM-Wash DC; LTC KACC-Ft Meade; USACHPPM; KACC-Ft Meade; USACHPPM; Mr USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

May I have a copy of the approved botulism fact sheet?

Thanks,

U.S. Army Center for Health Promotion & Preventive Medicine

USACHPPM: Saving Lives & Resources--Prevention is the Key.

-----Original Message-----
From: Mr USACHPPM
Sent: Wednesday, January 10, 2007 3:28 PM
To: USACHPPM; USACHPPM-EOC; USACHPPM-Wash DC; WRAIR-Wash DC; Ms USACHPPM; USACHPPM; USACHPPM-Wash DC; LTC USACHPPM
Cc: USACHPPM; USACHPPM-Wash DC; KACC-Ft Meade; USACHPPM; KACC-Ft Meade; USACHPPM; Mr USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED
Importance: High

Just got off the phone with [redacted] and her staff regarding the two cases of infant botulism from the Ft Meade community.

They're requesting our assistance to address the issue and have requested an EPICON.

A big concern is the risk of infection from exposure to contaminated soil. There's construction near the housing area where the two cases reside that's created a large debris pile of soil, concrete, etc. Local residents and the Ft Meade Garrison Command are very concerned that this may be the cause of the two infections.

There's been interest from outside medical organizations to help respond to this.

The POC at KACC is the [email address] (email above, [redacted]). Please ensure all communication is routed thru her so that we have a single message.

They're sending up a draft press release (attached) and botulism fact sheet that need to be reviewed NLT 1700 today. They're also looking for assistance drafting an
article for the Ft Meade newspaper to help inform the community. This will require RISKCOM support. Coordinate w/DEDS in the office today.)

Please copy the USACHPPM-EOD w/all emails.

DEDS should prepare a daily consolidated exsum for the CG until this matter is over.

-----Original Message-----
From: COL USACHPPM
Sent: Wednesday, January 10, 2007 11:20 AM
To: Ms USACHPPM; WRAIR-Wash DC; Mr USACHPPM; Ms USACHPPM
Cc: Mr USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)

Heads up. No request for direct assist from us at this point. Has hit as a PAO issue.

-----Original Message-----
From: OTSG
Sent: Wednesday, January 10, 2007 11:12 AM
To: COL USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)

We've sent this forward to leadership as a prelim EXSUM, pending further information out of Ft. Meade.

Classification: UNCLASSIFIED
Caveats: NONE
From: USACHPPM
Sent: Friday, January 12, 2007 11:41 AM
To: COL KACC-Ft Meade
Subject: Fw: EXSUM Meade BOT cases

This is what I sent the CG last night.
Thanks and talk soon

Sent from my BlackBerry Wireless Handheld

-----Original Message-----
From: COL USACHPPM
To: Mr USACHPPM; Mr USACHPPM;
CC: Ms USACHPPM; Mr USACHPPM-Wash DC
Subject: EXSUM Meade BOT cases

UNCLASSIFIED

EXECUTIVE SUMMARY

11 JAN 07

(U) FORT MEADE INFANT BOTULISM EPICON. (U) USACHPPM EPICON team will deploy to Fort Meade 12 Jan 07 to investigate 2 reported cases on infant botulism. Some team members met at Fort Meade 11 Jan. and conducted teleconference with CDC botulism specialists, Maryland and local public health officials, and the WRAMC physician who treated both cases. Clinical and environmental components of the investigation were discussed. EPICON team will meet with MTF commander tomorrow morning. Then 2 or 3 members will interview parents of both infants. PREPARE MEMO

APPROVED BY: 

UNCLASSIFIED

Total team composition:

PVMED physicians (2 Army, 2 civilian PH) APHN / Nurse Practitioner (2) Non-MD epidemiologists (2) Veterinarian (1) ESO (1) Risk Communicator (1)

Sent from my BlackBerry Wireless Handheld
Subject: UPDATE on Media Activities at Fort Meade

EXSUM
January 12, 2007
Friday

Stories appeared last night and this morning on/in:
WBAL TV 11 - NBC (Baltimore)
WUSA TV 9 - CBS (Washington)
WJZ TV 13 - CBS (Baltimore)
CNN
WBFF TV 5 - Fox
Capitol Gazette
AP
Various local metro radio stations.

UPDATE of Today's Events:

Media interest in the Botulism story continued today. Mrs. [REDACTED] continued to contact the media and be interviewed and says she won't rest until she gets some answers.

We were able to counter her barbs today when the commander went on air with WUSA9, Washington CBS affiliate and informed the reporter that the investigators were on site today. Our talking points included the fact that the investigators told him that botulism is a naturally occurring bacterium that can be found anywhere. They emphasized we may not ever know what caused these children to get sick. But the installation was doing all they could to ensure the safety of our community.

Two town hall meetings are scheduled for next week.

An invitation went out tonight to the residents of Amber Court to come to a private town hall meeting at 7pm on Tuesday January 16, 2007. We will have a physician from the US Army Center for Health Promotion and Preventive Medicine (USACHPPM) who is a member of the epidemiological consult (EPICON) team assisting in the investigation.

A second follow-up town hall meeting for all Fort Meade residents will be January 23 at Potomac Place at 6:00. Again the investigators for USACHPPM will be there to answer any questions.

We also had WJLA TV 7, ABC Affiliate cover the event on the installation.

There was a problem with the news crew showed up without contacting the Installation PAO office. They showed their House of Representatives Press Badge to the Contract Guard who thought they were a political leader and let them on the installation. They arrived at the home (where they had been invited by the [REDACTED]) and got there just as the investigators were arriving. So there was no PAO escort. But LTC [REDACTED], the Director, Epidemiology and Disease Surveillance, (U.S. Army Center for Health Promotion and Preventive Medicine, Aberdeen Proving Ground, Maryland) answered their questions successfully. And the media left. We later caught up with the media and explained the rules of escorting of media on post and explained they risk the pulling of their credentials on Fort Meade if they ever do that again. We believe they now understand.

We also met with the Investigating Team today. The told us the following information.
They will not be doing environmental sampling in the house or outside or in the area. Our goal will be to explain this so folks don't think we are not doing anything. But sampling at this point is a waste of time. Botulism is everywhere.

The team will attempt to determine whether the two infant botulism cases reported in the Fort Meade area are related and attempt to identify any possible, common links or sources.

If one or more sources are identified, control measures may be recommended to guard against further transmission. Communication will be important throughout the process, and the team will share information regarding the illness and control measures with the affected community.

These cases are linked by proximity. Walter Reed Army Hospital has sent specimens from the babies to be tested at Maryland Labs. It will be several weeks before we have any answers. But the odds are against us finding an underlying source because it is everywhere in the soil. It is not an inhalation problem but a toxic ingestion problem.

Reviewing results of tests that were ordered on the affected children during their illness, as well more specific testing that is in progress using samples from these patients. These more specific, bacteria subtype tests are being processed at public health laboratories. The team will review additional clinical information from healthcare providers.

They conducted interviews with both sets of infants' parents to determine food history and possible environmental exposures. They have follow-up questions with the one set of parents and will go back tonight.

Team members will also try to determine if the Fort Meade community or the civilian sector is experiencing other cases, by looking at surveillance data and disease reports. They are going tonight to introduce themselves to two other neighbors who have infants and live in the neighborhood.

They expect these meetings to extend through next week.

We have no plans to come in this weekend for coverage over the weekend. I believe the media is through until we can get some results. (my new media relations director) is on post and will be on call if anyone needs her. Her number is  

Have a great weekend.
UNCLASS

Past 24 hrs

- inbrief with Kimbrough
- structured epidemiologic interviews of both parents of each of the two infants who have suffered botulism; database creation
- brief on-camera interviews with ABC and CBS local affiliate TV stations from Wash DC, and with Ft Meade local TV
- meeting of entire team with garrison commander and the installation Sergeant Major, and the Public Affairs Officer
- tour of the implicated housing area and brief meeting of one of two other close neighbors of the affected families who also has an infant child
- telephonic coordination to obtain data on sudden infant death cases in Maryland occurring in military families
- initiation of information gathering on history of pertinent installation land use, housing construction, and sewage treatment
- initial planning of possible, limited case control study

Next 24 hrs

- preliminary analysis of questionnaire data
- contact family #1 to arrange session with risk communicator, to determine additional concerns and ensure any new questions are addressed
- planning for EPICON accompanying of at Town Hall sessions for installation residents over the next 10 days
- monitor media coverage to gauge need for updates or modification of public messages and educational postings
- continue to await results of bacterial subtyping by Maryland State Laboratory

Personnel and Equipment

All accounted
Sent from my BlackBerry Wireless Handheld
The number for the Media Relations Department at the CDC is 404-639-3286. I spoke to a gentleman named Chris. He would not give me a phone number and she is not in, so I gave him your name and number and my name and number and asked him to have her call you, or me if she can't get through to you.

Personally, I wouldn't consider two of something to be a cluster.

---Original Message-----
From: Ms USACHPPM
Sent: Tuesday, January 16, 2007 12:04 PM
To: Mr KACC-Ft Meade; CPA
Subject: RE: Interview/Q&A for your website

I am concerned about the Story in the Saturday, January 13 2007 Maryland Gazette paper by Joshua Stewart. He says he talked to Lola Russell, spokesman for the CDC who is putting out information. Can we please get in contact with this person."

Here is what she said that I have a problem with: "When there is a cluster that occurs, there is a soil in that area which has a higher than average content that was likely form some activity like construction."

To me here statement is confirming what Mrs. ______ was putting out that the construction ground was to blame. I would just like it if we could all agree on what to say. Do any of you have a contact number for LOLA?

---Original Message-----
From: Ms USACHPPM
Sent: Tuesday, January 16, 2007 10:46 AM
To: Mr KACC-Ft Meade
Cc: 
Subject: Interview/Q&A for your website

Heard the interview on your website. Nicely done!

Got your voice mail—we are preparing a few questions & answers that you can add to those you already have on your site. Would prefer that you not post the internal document I shared with you.

Thanks,

U.S. Army Center for Health Promotion
USACHPPM: Saving Lives & Resources--Prevention is the Key.

-----Original Message-----
From: Ms USACHPPM
Sent: Tuesday, January 16, 2007 8:24 AM
To: Ms USACHPPM
Subject: RE: Interview with

Our email filter screened out the file--however, your report is very helpful! Thanks for letting me know he did this.

-----Original Message-----
From: [mailto:] Sent: Friday, January 12, 2007 9:23 PM
To: Ms USACHPPM
Subject: FW: Interview with

Here is the interview with

From: Sent: Friday, January 12, 2007 7:00 PM
To: Cc:
Subject: Interview with

Attached is an .mp3 file with the interview I did tonight with the Director, Epidemiology and Disease Surveillance, U.S. Army Center for Health Promotion and Preventive Medicine, Aberdeen Proving Ground, Maryland. <[mailto:]>
Draft for comment and review.

KOM
About Botulism – Thoughts from the Commander

One of my fundamental responsibilities is the health and welfare of every member of this
community. There are many threats to the safety of the folks who live, work, and play on
Fort Meade. Last week I addressed the threat posed by motor vehicle accidents, for
example. Even as I wrote that column, however, another safety issue loomed for our
community, one much more difficult to take on. I learned late Tuesday afternoon that
two cases of Infant Botulism had been diagnosed on Fort Meade and that both occurred
on the same street, although separated in time by almost 3 month.

I've learned a great deal about botulism since the first call came in. Botulism is an
extremely common bacteria that is found in soil. The most common form of the disease
can usually be traced to tainted food arising from improperly canned or bottled food.
Infant Botulism is rarer. It generally strikes babies under six months of age. Somehow
the child ingests the bacteria and their young systems are unable to kill it in their
stomachs. The bacteria grows and multiplies and begins to release the botulism toxin
into their little systems. The toxins then attack the muscles throughout the body. If
untreated, the disease can result in death.

We were fortunate. The doctors at Walter Reed diagnosed the illness in time to save both
children’s lives and each is now home. The questions that we are left with are from
where did this particular strain of the bacteria come, how did the babies ingest it, and
what can we do to minimize the risk of other infants becoming sick? To answer these
questions, the Preventive Health department at Kimbrough is leading a team made up of
epidemiologists and health care professionals from the Army's Center for Health
Promotion and Preventive Medicine and the Anne Arundel County Health Department.
They are drawing on the expertise of Maryland’s Department of Health, the Center for
Disease Control, and medical researchers around the country who have tried to
understand this disease.

It is unlikely, these professionals tell me, that we will be able to trace the botulism
bacteria that struck these babies to a particular source: it is simply too commonplace in
the environment. Similarly, there are many ways that the bacteria could have been
introduced into the children’s systems. The investigative team will nevertheless try to
establish some commonality between the two cases.

I have responsibility to take actions to reduce risks of further transmissions as these are
identified to me. Since the botulism bacteria occurs naturally in the soil, I am working
with Picerne to cover exposed soil near housing areas to limit the possibility of airborne
transmission through dust. That is why we reseeded the construction staging site on
Clark Road; and that is why we will relocate this site before we initiate planned
construction in the spring. I have also worked to distribute a flyer to all residents
describing the symptoms of this disease and some common actions parents and caregivers
may take to reduce risks of transmitting the disease to infants. These include boiling
water used in formula, cleaning toys frequently in a weak bleach solution, and washing
hands constantly with hot water and soap. None of these actions is a guarantee that the disease won’t be transmitted, but they do reduce risk.

We held a meeting for all residents of Oliver Court on 16 January to discuss their specific concerns and answer questions they might have. I will conduct another community meeting on 23 January at Potomac Place at 1800 hours. This meeting will be open to all residents and anyone else on the installation who has questions or concerns.

The good news is that this disease is treatable. Both babies are healthy and happy. The bad news is that it does not lend itself to definitive prevention measures: there is nothing to “clean-up,” there is no trail showing where it came from and how it got to the baby. This can be frustrating for people who want answers now, who want to assign blame. This is our community and a strong community comes together when faced with adversity. We all must be vigilant of symptoms, more careful than ever of good sanitation actions, and not contribute to rumors or speculation. If you have questions, ask them. If you hear rumors, give us an opportunity to respond to them.

I have prayed a prayer of thanksgiving that both children are fine; I pray that no other families will suffer. Perhaps that is the most powerful response I can offer. Please continue to care for each other and reach out to those in need.
Past 24 hrs

- Produced updated questions-and-answers for direct use in community and for posting, which also addresses EPICON mission. Input from CHPPM PA included.

- Conducted town hall meeting with residents of cases immediate neighborhood. Attended by Anne Arundel County PM physician, USACHPPM epidemiologists, USACHPPM risk communicators, Kimbrough Clinic and Fort Meade Garrison Commander.

- Completed teleconference with Maryland State and Anne Arundel county PM physicians, Dr. Arnon (infant botulism expert from California) and EPICON team to discuss strategy for epidemiologic investigation. Discussed possible strategies for environmental sampling.

- Met with garrison commander, Kimbrough commander, and the Fort Meade Public Affairs Officer for update.

- Identified birth cohort of births to Fort Meade residents for 2006 to identify possible "control" selection.

Next 24 hrs

- Decision on environmental sampling strategy.

- Coordination of laboratory and sample collection/shipping support

- Continue to await results of bacterial subtyping by Maryland State Laboratory

Personnel and Equipment

All accounted for

Ms.
Mr.
Ms.
Ms.
Mr.
Dr. Russo (County PM / ID Physician)
LTC (NCR Vet Chief)
LTC (Kimbrough PM-APHN)
LTC (Kimbrough ESO)

Sent from my BlackBerry Wireless Handheld
Sirs,

As you were asking some questions about the disease yesterday, I thought I would forward this link to MSMR article almost 9 years ago (and entire issue attached as a .pdf) outlining a case seen then at Walter Reed. The Comment section is a nice brief overview.

VR,

Bruno

-----Original Message-----
From: MAJ USACHPPM-Wash DC
Sent: Monday, January 15, 2007 10:14 PM
To: MAJ USACHPPM-Wash DC
Subject: Case report of infant botulism in MSMR in 1998

Table of Contents

Completeness and timeliness of required disease reporting .......... 2
Selected sentinel reportable diseases, May 1998 ....................... 4
Selected sentinel reportable diseases, 2 year trends .................. 5
Reportable sexually transmitted diseases, May 1998 .................. 6
Reportable sexually transmitted diseases, 2 year trends ............. 7
Elevated blood lead, Fort Campbell ..................................... 11
ARD surveillance update .................................................. 13
Infant botulism, WRAMC ................................................. 14

Data in the MSMR is provisional, based on reports and other sources of data available to the Medical Surveillance Activity. Notifiable conditions are reported by date of onset (or date of notification when date of onset is absent). Only cases submitted as confirmed are included.
Surveillance Trends


The Army Medical Surveillance Activity (AMSA) periodically assesses the completeness and timeliness of reporting of notifiable diseases/conditions. The methodology of the assessment has been described in previous MSMRs. In brief, for defined periods, records of hospitalizations of active duty soldiers were searched to identify those with principal discharge diagnostic codes indicative of reportable diseases/conditions. These records were then compared to reports received through the Army's automated notifiable diseases reporting system (MSS). Completeness of reporting was estimated as the percent of hospitalized cases that were reported through the MSS; among hospitalized cases reported through the MSS, timeliness of reporting was estimated based on the distribution of times from hospital admissions to corresponding MSS reports.

Completeness: During the period July through December 1997, there were 273 hospitalizations of active duty soldiers for diseases/conditions presumed to be reportable. Of these, 120 (44.0%) were reported through the MSS. Completeness of reporting during the most recent assessment period markedly exceeded that during earlier periods (figure 1).

During the period, nearly two-thirds (75 of 118, 63.6%) of reportable infectious disease cases but less than one third (45 of 155, 29.0%) of other reportable conditions (i.e., heat stroke, heat exer-
tion, rhabdomyolysis, carbon monoxide intoxication, chemical agent exposure, Guillain-Barre syn-
drome) were reported through the MSS. Completeness of reporting of infectious cases significantly increased in the most recent compared to previous periods. In contrast, proportions of non-infectious cases reported through MSS have remained relatively stable (figure 1).

Two reporting sites, Forts Eustis and Drum, had 100% reporting completeness (albeit each had only 1 or 2 reportable hospitalized cases). Reporting sites at Fort Campbell, Tripler Army Medical Center (Hawaii), and Korea reported more than 70% of larger numbers of reportable hospitalized cases.

Timeliness: Of hospitalized cases reported through the MSS, more than 58% were reported within one week, and more than 80% within three weeks, of admission (table 1). The estimated timeliness during the latter half of 1997 was comparable to that during earlier periods (figure 2).

Editorial Comment: This report summarizes findings of the third semiannual assessment of completeness and timeliness of notifiable disease reporting in the Army. The results suggest that during the most

Continued on page 8

Prepared by the Medical Surveillance Activity, Directorate of Epidemiology and Disease Surveillance, United States Army Center for Health Promotion and Preventive Medicine.

Inquiries regarding content or material to be considered for publication should be directed to the editor, Army Medical Surveillance Activity, Bldg. T-20, Rm 213, Washington DC, 20307-5100.
E-mail: "ltc_mark_rubertone@wrsmtl-cmail.army.mil" Publishing office is the Executive Communications Division, United States Army Center for Health Promotion and Preventive Medicine, Aberdeen Proving Ground, Maryland 21010-5422.
To be added to the mailing list, contact the Army Medical Surveillance Activity @ DSN 662-0471, Comm: (202) 782-0471.

Views and opinions expressed are not necessarily those of the Department of the Army.
Figure 1. Completeness of reporting, hospitalized reportable cases, overall and by category, 1996 - 1997

Table 1. Timeliness of reporting, reportable hospitalizations among soldiers, Jul - Dec 1997

<table>
<thead>
<tr>
<th>Interval</th>
<th>Percent in Interval</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 week</td>
<td>58.3%</td>
<td>58.3%</td>
</tr>
<tr>
<td>1-2 weeks</td>
<td>14.2%</td>
<td>72.5%</td>
</tr>
<tr>
<td>2-3 weeks</td>
<td>9.2%</td>
<td>81.7%</td>
</tr>
<tr>
<td>3-4 weeks</td>
<td>5.8%</td>
<td>87.5%</td>
</tr>
<tr>
<td>1-2 months</td>
<td>5.8%</td>
<td>93.3%</td>
</tr>
<tr>
<td>&gt; 2 months</td>
<td>6.7%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Figure 2. Timeliness of reporting, 1996-1997
TABLE I. Selected sentinel reportable diseases, US Army medical treatment facilities*  
May, 1998

<table>
<thead>
<tr>
<th>Reporting MTF/Post**</th>
<th>Total number of reports submitted May 1998</th>
<th>Active Duty</th>
<th>Active Duty</th>
<th>Viral Hepatitis</th>
<th>Salmonellosis</th>
<th>Shigellosis</th>
<th>Variola</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORTH ATLANTIC RMC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walter Reed AMC</td>
<td>25</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Aberdeen Prov. Ground, MD</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Belvoir, VA</td>
<td>25</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Bragg, NC</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>FT Drum, NY</td>
<td>7</td>
<td>0</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT East, VA</td>
<td>22</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>FT Knox, KY</td>
<td>32</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Lee, VA</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Meade, MD</td>
<td>27</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>West Point, NY</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>GREAT PLAINS RMC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brooke AMC</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Baumont AMC</td>
<td>45</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Carson, CO</td>
<td>77</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>FT Hood, TX</td>
<td>185</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Huachuca, AZ</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Leavenworth, KS</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>FT Leonard Wood, MO</td>
<td>25</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Polk, LA</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Riley, KS</td>
<td>19</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>FT Sill, OK</td>
<td>39</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>SOUTHEAST RMC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eisenhower AMC</td>
<td>26</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Benning, GA</td>
<td>26</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>FT Campbell, KY</td>
<td>42</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>FT Jackson, SC</td>
<td>19</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT McClellan, AL</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Rocker, AL</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Stewart, GA</td>
<td>34</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>WESTERN RMC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Madigan AMC</td>
<td>56</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>FT Irwin, CA</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Wainwright, AK</td>
<td>6</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>OTHER LOCATIONS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tripoli</td>
<td>43</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Europe</td>
<td>125</td>
<td>0</td>
<td>22</td>
<td>2</td>
<td>11</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>Korea</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>935</td>
<td>20</td>
<td>53</td>
<td>8</td>
<td>33</td>
<td>28</td>
<td>32</td>
</tr>
</tbody>
</table>

* Based on date of onset.  
** Reports are included from main and satellite clinics. Not all sites reporting.  
Date of Report: 7-Jun-98
FIGURE I. Selected sentinel reportable diseases, US Army medical treatment facilities*
Cases per month, Jun 96 - May 98

* Reports are included from main and satellite clinics. Not all sites reporting.

Date of report: 7-Jun-98
### TABLE II. Reportable sexually transmitted diseases, US Army medical treatment facilities*  
May, 1998

<table>
<thead>
<tr>
<th>Reporting MTF/Post**</th>
<th>Chlamydia</th>
<th>Urethritis non-spec.</th>
<th>Gonorrhea</th>
<th>Herpes Simplex</th>
<th>Syphilis Prim/Sec</th>
<th>Syphilis Latent</th>
<th>Other STDs**</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORTH ATLANTIC RMC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walter Reed AMC</td>
<td>3</td>
<td>26</td>
<td>0</td>
<td>3</td>
<td>9</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Aberdeen Prov. Ground, MD</td>
<td>1</td>
<td>11</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Belvoir, VA</td>
<td>10</td>
<td>77</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>21</td>
<td>3</td>
</tr>
<tr>
<td>FT Bragg, NC</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Drum, NY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Eustis, VA</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Knox, KY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Lee, VA</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Meade, MD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>West Point, NY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>GREAT PLAINS RMC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brooke AMC</td>
<td>16</td>
<td>121</td>
<td>0</td>
<td>7</td>
<td>45</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>Beaumont AMC</td>
<td>11</td>
<td>121</td>
<td>0</td>
<td>7</td>
<td>45</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>FT Carson, CO</td>
<td>41</td>
<td>177</td>
<td>13</td>
<td>7</td>
<td>45</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>FT Hood, TX</td>
<td>25</td>
<td>422</td>
<td>3</td>
<td>91</td>
<td>10</td>
<td>165</td>
<td>4</td>
</tr>
<tr>
<td>FT Hushchuca, AZ</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>FT Leavenworth, KS</td>
<td>3</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>FT Leonard Wood, MO</td>
<td>10</td>
<td>46</td>
<td>3</td>
<td>14</td>
<td>2</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>FT Polk, LA</td>
<td>1</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>FT Riley, KS</td>
<td>20</td>
<td>107</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>30</td>
<td>0</td>
</tr>
<tr>
<td>FT Sill, OK</td>
<td>10</td>
<td>68</td>
<td>1</td>
<td>15</td>
<td>12</td>
<td>50</td>
<td>1</td>
</tr>
<tr>
<td>SOUTHEAST RMC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eisenhower AMC</td>
<td>4</td>
<td>61</td>
<td>0</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>FT Benning, GA</td>
<td>14</td>
<td>108</td>
<td>3</td>
<td>7</td>
<td>41</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>FT Campbell, KY</td>
<td>30</td>
<td>194</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>76</td>
<td>1</td>
</tr>
<tr>
<td>FT Jackson, SC</td>
<td>5</td>
<td>89</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>40</td>
<td>0</td>
</tr>
<tr>
<td>FT McClellan, AL</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>FT Rucker, AL</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>FT Stewart, GA</td>
<td>11</td>
<td>67</td>
<td>10</td>
<td>81</td>
<td>6</td>
<td>43</td>
<td>6</td>
</tr>
<tr>
<td>WESTERN RMC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Madigan AMC</td>
<td>24</td>
<td>147</td>
<td>11</td>
<td>63</td>
<td>1</td>
<td>19</td>
<td>3</td>
</tr>
<tr>
<td>FT Irwin, CA</td>
<td>2</td>
<td>17</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FT Wainwright, AK</td>
<td>0</td>
<td>25</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>OTHER LOCATIONS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tripler</td>
<td>17</td>
<td>96</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>31</td>
<td>9</td>
</tr>
<tr>
<td>Europe</td>
<td>2</td>
<td>286</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>43</td>
<td>0</td>
</tr>
<tr>
<td>Korea</td>
<td>0</td>
<td>21</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>285</td>
<td>2515</td>
<td>45</td>
<td>372</td>
<td>107</td>
<td>836</td>
<td>42</td>
</tr>
</tbody>
</table>

* Reports are included from main and satellite clinics. Not all sites reporting.  
** Other STDs: (a) Chancroid (b) Granuloma inguinale (c) Lymphogranuloma Venereum (d) Syphilis unspec. (e) Syph, tertiary (f) Syph, congenital
FIGURE II. Reportable sexually transmitted diseases, US Army medical treatment facilities*
Cases per month, Jun 96 - May 98

* Reports are included from main and satellite clinics. Not all sites reporting.

Date of report: 7-Jun-98
Continued from page 2

recent assessment period there was an increase in reporting of notifiable diseases/conditions Armywide without a degradation (or improvement) of timeliness of reporting.

The methodology used for assessing reporting performance has inherent weaknesses that should be considered when interpreting the results. For example, "gold standard" cases for routine Armywide assessments are identified based on International Classification of Diseases, 9th revision (ICD-9) coded hospital discharge diagnoses. However, over the course of thousands of hospitalizations, some nonreportable conditions are inevitably miscoded with reportable case codes (resulting in "false" reportable cases). Unfortunately, for assessment purposes, such cases are inappropriately counted as missed reportable cases. Also, there is not a one-to-one correspondence between ICD-9 codes and reportable diseases/conditions; thus, some hospitalizations are properly annotated with reportable case codes and also properly not reported through the MSS. Such cases may be improperly counted, however, as "missed" reportable cases in routine periodic completeness and timeliness assessments. Both circumstances result in underestimation of actual reporting completeness. Since the same methodology is used consistently in periodic assessments of reporting completeness, estimates of trends should be relatively unaffected by these potential biases.

It is noteworthy that reportable infectious disease cases were reported much more completely than noninfectious diseases/conditions. Rhabdomyolysis, a condition that has been relatively poorly reported in the Army, is not included in the new triservice consensus list of reportable diseases/conditions; if for no other reason, overall completeness of reporting in the Army should improve after the new consensus list is implemented. Still, there are several potential explana-

Table 2. Reporting completeness by MTF, July - December 1997

<table>
<thead>
<tr>
<th>MTF</th>
<th>Number reported</th>
<th>Total</th>
<th>Number reported/total number</th>
<th>Reports received: Jul - Dec</th>
<th>Non-STD reports received</th>
<th>STD reports received</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>12</td>
<td>15</td>
<td>80.0</td>
<td>359</td>
<td>63</td>
<td>296</td>
</tr>
<tr>
<td>B</td>
<td>4</td>
<td>5</td>
<td>80.0</td>
<td>223</td>
<td>31</td>
<td>192</td>
</tr>
<tr>
<td>C</td>
<td>22</td>
<td>30</td>
<td>73.3</td>
<td>88</td>
<td>37</td>
<td>31</td>
</tr>
<tr>
<td>D</td>
<td>16</td>
<td>24</td>
<td>66.7</td>
<td>180</td>
<td>59</td>
<td>121</td>
</tr>
<tr>
<td>E</td>
<td>17</td>
<td>26</td>
<td>65.4</td>
<td>130</td>
<td>39</td>
<td>91</td>
</tr>
<tr>
<td>F</td>
<td>6</td>
<td>10</td>
<td>60.0</td>
<td>248</td>
<td>27</td>
<td>221</td>
</tr>
<tr>
<td>G</td>
<td>8</td>
<td>16</td>
<td>50.0</td>
<td>586</td>
<td>106</td>
<td>480</td>
</tr>
<tr>
<td>H</td>
<td>4</td>
<td>8</td>
<td>50.0</td>
<td>183</td>
<td>12</td>
<td>171</td>
</tr>
<tr>
<td>I</td>
<td>8</td>
<td>18</td>
<td>44.4</td>
<td>896</td>
<td>40</td>
<td>856</td>
</tr>
<tr>
<td>J</td>
<td>3</td>
<td>8</td>
<td>37.5</td>
<td>355</td>
<td>24</td>
<td>331</td>
</tr>
<tr>
<td>K</td>
<td>5</td>
<td>14</td>
<td>35.7</td>
<td>75</td>
<td>33</td>
<td>42</td>
</tr>
<tr>
<td>L</td>
<td>5</td>
<td>15</td>
<td>33.3</td>
<td>40</td>
<td>7</td>
<td>33</td>
</tr>
<tr>
<td>M</td>
<td>2</td>
<td>8</td>
<td>25.0</td>
<td>152</td>
<td>18</td>
<td>134</td>
</tr>
<tr>
<td>N</td>
<td>1</td>
<td>6</td>
<td>16.7</td>
<td>131</td>
<td>10</td>
<td>121</td>
</tr>
<tr>
<td>O</td>
<td>1</td>
<td>6</td>
<td>16.7</td>
<td>197</td>
<td>24</td>
<td>173</td>
</tr>
<tr>
<td>P</td>
<td>1</td>
<td>7</td>
<td>14.3</td>
<td>16</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>Q</td>
<td>1</td>
<td>9</td>
<td>11.1</td>
<td>289</td>
<td>11</td>
<td>278</td>
</tr>
<tr>
<td>R</td>
<td>1</td>
<td>20</td>
<td>5.0</td>
<td>85</td>
<td>85</td>
<td>0</td>
</tr>
<tr>
<td>S</td>
<td>0</td>
<td>10</td>
<td>0.0</td>
<td>68</td>
<td>2</td>
<td>86</td>
</tr>
<tr>
<td>T</td>
<td>0</td>
<td>7</td>
<td>0.0</td>
<td>288</td>
<td>34</td>
<td>264</td>
</tr>
<tr>
<td>U</td>
<td>0</td>
<td>6</td>
<td>0.0</td>
<td>142</td>
<td>7</td>
<td>135</td>
</tr>
</tbody>
</table>

Continued on page 10
Figure 3. Completeness of reporting, reportable hospitalizations, by reporting site, 1996 - 1997
tions for the relative underreporting of noninfectious conditions. First, most Army preventive medicine services are required to report specified diseases/conditions to civilian public health authorities (e.g., county/state health departments). Given that most civilian notifiable diseases are infectious in nature, one would expect more complete and accurate reporting of infectious diseases to the extent that the civilian and military requirements overlap. Also, preventive medicine staffs may ascertain reportable infectious disease cases through clinical and/or laboratory channels. In contrast, noninfectious cases are generally ascertainable only through clinical channels, and many clinicians remain relatively unaware of noninfectious disease reporting requirements.

In the past year, preventive medicine representatives of the Army, Navy, Air Force, and Marines developed a triservice consensus list of reportable diseases/conditions. In the course of their work, the group also developed standard case definitions, reporting procedures, and summarization methods for notifiable disease surveillance. Implementation (scheduled for this summer) of the consensus triservice list, case definitions, and procedures will for the first time standardize notifiable disease reporting throughout the DoD.

References


Table 3. Completeness of reporting, reportable hospitalizations among soldiers, July - December 1997

<table>
<thead>
<tr>
<th>Notifiable disease/condition</th>
<th>Number reported</th>
<th>Reportable hospitalizations</th>
<th>Percent reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leprosy</td>
<td>2</td>
<td>2</td>
<td>100.0</td>
</tr>
<tr>
<td>Malaria</td>
<td>24</td>
<td>26</td>
<td>92.3</td>
</tr>
<tr>
<td>Leishmaniasis</td>
<td>4</td>
<td>5</td>
<td>80.0</td>
</tr>
<tr>
<td>Salmonellosis</td>
<td>4</td>
<td>5</td>
<td>80.0</td>
</tr>
<tr>
<td>Heat stroke</td>
<td>22</td>
<td>33</td>
<td>66.7</td>
</tr>
<tr>
<td>Gonorrhea</td>
<td>2</td>
<td>3</td>
<td>66.7</td>
</tr>
<tr>
<td>Hepatitis A, Acute</td>
<td>2</td>
<td>3</td>
<td>66.7</td>
</tr>
<tr>
<td>Hepatitis B, Acute</td>
<td>2</td>
<td>3</td>
<td>66.7</td>
</tr>
<tr>
<td>Meningitis, bacterial</td>
<td>1</td>
<td>2</td>
<td>50.0</td>
</tr>
<tr>
<td>Varicella, adult only</td>
<td>18</td>
<td>38</td>
<td>47.4</td>
</tr>
<tr>
<td>Meningitis, aseptic/viral</td>
<td>14</td>
<td>42</td>
<td>33.3</td>
</tr>
<tr>
<td>Lyme disease</td>
<td>1</td>
<td>3</td>
<td>33.3</td>
</tr>
<tr>
<td>Rhabdomyolysis</td>
<td>13</td>
<td>42</td>
<td>31.0</td>
</tr>
<tr>
<td>Heat exhaustion</td>
<td>10</td>
<td>33</td>
<td>30.3</td>
</tr>
<tr>
<td>Tuberculosis, pulmonary</td>
<td>1</td>
<td>6</td>
<td>16.7</td>
</tr>
<tr>
<td>Carbon monoxide intoxication</td>
<td>0</td>
<td>3</td>
<td>0.0</td>
</tr>
<tr>
<td>Chemical agent exposure</td>
<td>0</td>
<td>2</td>
<td>0.0</td>
</tr>
<tr>
<td>Coccidioidomycosis</td>
<td>0</td>
<td>3</td>
<td>0.0</td>
</tr>
<tr>
<td>Encephalitis</td>
<td>0</td>
<td>1</td>
<td>0.0</td>
</tr>
<tr>
<td>Guillain-Barre Syndrome</td>
<td>0</td>
<td>5</td>
<td>0.0</td>
</tr>
<tr>
<td>Hepatitis C, Acute</td>
<td>0</td>
<td>2</td>
<td>0.0</td>
</tr>
<tr>
<td>Influenza</td>
<td>0</td>
<td>1</td>
<td>0.0</td>
</tr>
<tr>
<td>Pneumococcal pneumonia</td>
<td>0</td>
<td>7</td>
<td>0.0</td>
</tr>
<tr>
<td>Rocky mountain spotted fever</td>
<td>0</td>
<td>1</td>
<td>0.0</td>
</tr>
<tr>
<td>Shigellosis</td>
<td>0</td>
<td>1</td>
<td>0.0</td>
</tr>
<tr>
<td>Syphilis</td>
<td>0</td>
<td>1</td>
<td>0.0</td>
</tr>
</tbody>
</table>
In March 1998, the three year old daughter of an active duty soldier presented to the primary care clinic at Blanchfield Army Community Hospital, Fort Campbell, Kentucky, with a one day history of nausea, headache, and temperature to 101°F. Physical examination of the child was normal, and a diagnosis of viral upper respiratory infection was made.

Prior to the clinic visit, the child's mother saw a television announcement that led her to realize that her daughter had symptoms of lead poisoning (e.g., chronic constipation, recurrent nausea, developmental delays). In response to the mother's concerns, the care provider checked the child's blood lead level. An assay revealed a concentration of 35 micrograms per deciliter (mcg/dl). A followup level approximately one month later was 15 mcg/dl.

In April 1998, the child's primary care provider initiated a comprehensive case management plan that included a complete laboratory work-up, evaluation of the child's speech development, and an environmental assessment. Laboratory results revealed that the child was anemic, and she was started on oral iron supplementation.

A community health nurse and an environmental science officer from the local Preventive Medicine Service visited the family at their home. The parents described longstanding concerns regarding the pace and character of the child's development. For example, the child seemed to lag behind her contemporaries in acquiring motor skills, developing language, and following directions. A complete developmental assessment revealed significant speech and language delays and mild to moderate global delays. The child was referred to an on-post developmental preschool program which she is expected to begin in the fall.

For approximately 18 months, the family had lived in 1960s vintage on-post government quarters. Inspection of the quarters revealed generally clean and well-maintained indoor living areas. However, paint on the kitchen door was flaking, and there were areas of the walls at nearly every corner of the residence where the child had chewed on the wallboard (the parents described the child's history of pica which was expressed through chewing rugs, chalk, magazines, books, and walls; picking, peeling, and eating paint; and eating dirt and rocks). Outside the residence, there were two storage areas with peeling and chipping paint. Environmental assessment of the residence included swipes for paint dust, sampling of soil from the backyard play area, and x-ray fluorescence (XRF) readings of walls, doors, and ceramic items. The two outside storage doors were found to have high levels of lead. The family was counseled regarding lead exposure prevention and nutritional aspects of lead poisoning, and the child was referred for a complete nutritional assessment.

During followup, the child's blood lead levels steadily declined (to 10 mcg/dl at the most recent evaluation in late May) probably due, at least in part, to increased parental lead hazard awareness and subsequent closer parental supervision. In addition, in February 1998, the child's mother began working outside the home, and as a result, the child spent most of her time during the day in a lead-free environment.

Management and close followup of the case are ongoing.

Editorial comment: Lead is a naturally occurring element that is continuously released into the environment during mining, smelting, processing, use, recycling, and disposal activities. Lead-based paint (in homes built before 1978) remains the most important source of lead exposure of children. While actions taken by the Environmental Protection Agency (EPA), the Food and Drug Administration...
(FDA), and the Occupational Safety and Health Administration (OSHA) have reduced potential exposures from the environment, childhood lead poisoning remains a major preventable health problem in the United States.

In recent years, average blood lead levels have declined dramatically in the United States; still, it is estimated that from 1991 to 1994, there were 890,000 U.S. children aged 1 to 5 years with blood lead levels greater than or equal to 10 mcg/dl (levels that indicate, as a minimum, family education and follow-up testing).2 Blood lead levels as low as 10-15 mcg/dl are associated with diminished intelligence, slowed neurological development, decreased hearing acuity, and growth deficits. Higher levels can result in severe damage to the renal, hematopoietic, and central nervous systems and even death. Thus, recent Centers for Disease Control and Prevention guidelines for preventing lead poisoning in children remain relevant to many civilian and military communities.3

Lead education and awareness programs are needed for both the general public and the health care community. Patients and their family members often ask questions of careproviders during clinic visits. Such situations provide good opportunities for family preventive health counseling. For example, in response to questions regarding child health and safety, providers can suggest ways to reduce environmental lead exposure risks, including 1) ensure that floors, window sills, toys, and other surfaces are clean; 2) provide a healthful, nutritionally balanced diet; 3) prevent children from chewing painted surfaces; and 4) encourage good personal hygiene practices (e.g., washing hands).

The Guide to Clinical Preventive Services (2d edition) of the US Preventive Services Task Force4 provides careproviders with questions that may be useful for assessing lead exposure risks, guidelines for interpreting blood lead levels, and appropriate follow-up practices.

Report and editorial comment submitted by Kevin Michaels, MAJ, MC, Chief, Preventive Medicine Service, and Beverly Morgan, CPT, AN, Chief, Community Health Nursing, Fort Campbell, Kentucky.

References

Correction, Vol. 04, No. 03 (April 1998)

In Figure III on page 15, the ARD Surveillance Update showed incorrect rates for Forts Jackson, Leonard Wood, and McClellan. The actual ARD rates are shown in the current issue.
ARD Surveillance Update

Legend

<table>
<thead>
<tr>
<th>ARD Rate</th>
<th>SASI</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ARD cases / Trainees) * 100</td>
<td>ARD Rate * Strep Rate **</td>
</tr>
</tbody>
</table>

Ft Benning

Ft Jackson

Ft Knox

Ft Leonard Wood

Ft McClellan

Ft Sill

Figure III. ARD surveillance rates, submitted by Army TRADOC posts

* Strep/ARD Surveillance Index (SASI)
** Strep Rate=(GABHS(+)) / Cultures) * 100

Note: SASI has proven to be a reliable predictor of serious strep-related morbidity, especially acute rheumatic fever.
Case Report

Infant Botulism, Walter Reed Army Medical Center

In May 1998, a 5 week old female presented to the pediatric clinic at Walter Reed Army Medical Center (WRAMC) with a two day history of decreased appetite, irritability, and progressively decreasing activity. The child also had a three day history of constipation. Although there was no history of fever or ill contacts, bacterial sepsis was considered a possible cause of the illness. Physical examination revealed a “floppy” infant with little to no facial expression, a weak cry, and inability to suck. A CT scan of the head was normal, and basic metabolic screening was unremarkable.

After one day in the hospital, the child had decreased spontaneous movements and a diminished gag reflex. Her clinical course seemed to be progressing towards total body paralysis. The possibility of infant botulism was introduced by a resident physician who had heard about the case. The diagnosis was supported by electromyographic (EMG) findings and was confirmed by detection of botulinum toxin, type B, in the patient’s stool (performed at the Centers for Disease Control and Prevention, Atlanta, Georgia).

On the third hospital day, the infant received human Botulinum Immune Globulin (BIG) under an FDA-approved investigational new drug (IND) emergency use protocol. From the time of the BIG infusion, there was no further progression of paralysis, and over the next two weeks, there was a return of near normal neuromuscular function. The infant was discharged after a 2 1/2 week hospital stay, and she is currently well with no residual effects of her illness.

Editorial comment: Botulism is the clinical manifestation of poisoning with toxins produced by Clostridium botulinum, a spore-forming obligate anaerobic bacterium that is distributed in soil worldwide. There are three forms of botulism: infant, foodborne, and wound. All forms are caused by botulinum toxin and have the same pathophysiology. The forms differ only in relation to the sites and circumstances of toxin production. There are 50-100 cases of botulism reported each year in the U.S. When spores of C. botulinum are ingested by infants (e.g., in honey or dust), they can germinate and multiply in the bowel and, in the process, release botulinum toxin, an extremely potent blocker of nerve conduction. As the bacterial toxin is absorbed from the intestine, it is distributed throughout the body in the bloodstream. When toxin reaches presynaptic termini of peripheral nerves, it irreversibly binds to them, preventing their release of acetylcholine and thereby blocking nerve signals to muscles. The cumulative result is a progressive, symmetric, flaccid descending paralysis. As the disease develops, loss of voluntary and involuntary muscle function produces a “floppy” infant that ultimately requires mechanical ventilation for life support. Infants with botulism generally require prolonged hospitalizations and weeks of intensive care. Antibiotics are not helpful and may be harmful (e.g., antibiotics may have synergistic toxic effects, C. botulinum may release toxin when killed).1,2

With adequate support, the prognosis for recovery from infant botulism is excellent. Although deaths from infant botulism are rare in the U.S., patients and their parents endure long periods of convalescence. In addition, complications of the illness may be life threatening or chronically disabling. Finally, hospitalization costs are extremely high. A review of cases in California from 1992-1997 found that more than $8 million were required for care of approximately 60 infant botulism patients.

Adults and older children with normal gastrointestinal anatomies and microflora are not susceptible to infant botulism, probably because their fully developed gut bacteria do not permit the growth of C. botulinum. Adults may get botulism, however, from ingesting preformed toxin, typically
from eating improperly preserved home-processed foods (e.g., canned fruits and vegetables). Five minutes of boiling is required to destroy \textit{C. botulinum} toxin, and even higher temperatures for longer periods are required to inactivate spores. If \textit{C. botulinum} is allowed to contaminate food during its preparation, packaging, or storage, it can produce toxin in sufficient quantity to cause disease upon its ingestion. Even a single suspected case of foodborne botulism constitutes a public health emergency. Immediate actions are required to prevent further consumption of contaminated food and to identify, evaluate, and treat other potential cases. Finally, wound botulism occurs when \textit{C. botulinum} germinates in "dirty" wounds (e.g., traumatic injuries, intravenous drug use).\textsuperscript{1}

For decades, adults stricken with foodborne botulism have been successfully treated with equine botulinum antitoxin. Equine antitoxin is not given to children, however, due to risks of severe allergic reactions and serum sickness. Thus, for its first 15 years, standard treatment of infant botulism was entirely supportive. Recently, however, Stephen Arnon, M.D., Director of the California Infant Botulism Treatment and Prevention Program, has directed studies of the use of human Botulism Immune Globulin (BIG) for treating infant botulism.\textsuperscript{3}

Preliminary findings of his studies have suggested that early treatment of infant botulism with BIG may produce more rapid recoveries than with standard treatment and, in many cases, may eliminate the need for mechanical ventilatory support. Thus, BIG therapy of infant botulism may result in decreased and less severe complications, shortened inpatient courses, and significant cost savings.\textsuperscript{3,4} The product is awaiting FDA approval for a nationwide open-label clinical trial. It was made available for use at WRAMC only through an emergency use clinical research protocol.

Report and editorial comment provided by Jeff Bennett, CPT, MC, USAF, Fellow, Pediatric Infectious Diseases, Walter Reed Army Medical Center, Washington, DC.

References
\textsuperscript{2} Arnon SS, Chin J. The clinical spectrum of infant botulism. Rev Infect Dis, 1979, 1:4(Jul), 614-624.
Past 24 hrs

- Part of team met at CHPPM-Main to discuss approaches to environmental sampling. It must be emphasized at all levels that environmental sampling is NOT intended to serve as a tool to 'solve the outbreak [cluster]', nor directly predict risk of future cases, nor contribute to immediate preventive interventions. Instead this would be an opportunity to advance understanding of spore prevalence in a geographic area previously uncharacterized with respect to C. botulinum. It does, however, still constitute part of the overall public health assessment (in contrast to generalizable, scientific research) in that the information gained will contribute to nationally collected data on risk density. As an additional benefit it may enhance current health communications to, and information for, the residents and workers of Fort Meade and the surrounding area (though the information must be presented in proper context to avoid the opposite effect, namely, generating either fear or a false sense of ability of garrison to mitigate).

- Per Dr. Arnon's botulism expert (SME) list, contacted Dr. Mike Adler, MRICD Botulism research group director. They do not have the laboratory capabilities to support us on Edgewood. However, he is contacting someone at USAMRIID to explore possible collaboration on lab support for environmental sampling (soil and dust) and will get back to me soon.

Next 24 hrs

- Schedule meeting or phone conference among CHPPM subject experts on environmental sampling and laboratory analysis.
  Tentative invitee list:
  EPICON Team
  MAJ [REDACTED] (DLS), [REDACTED] (DOHS) [REDACTED] (DEHE)

- Schedule vacuum dust collection at homes of the two affected infants.

- Continue to await results of bacterial subtyping by Maryland State Laboratory.

- Continue disease surveillance.

Personnel and Equipment

No change
Ma'am,

Just FYI interesting article forwarded from LTC (Vet Svc)......

I've obtained a short statement from Vet Services reference Botulism in pets for posting on the Ft Meade site.
Botulism - Proceedings - Library - VIN

Botulism
Emerging and Exotic Diseases of Animals
Iowa State University, Institute for International Cooperation in Animal Biologics
Center for Food Security and Public Health
College of Veterinary Medicine
Iowa State University
Ames Iowa USA 50011
Phone: 515 294 7189
Fax: 515 294 8259
Email: cfsph@iastate.edu
For the most current version of this fact sheet, visit the CFSPH website:
http://www.cfsph.iastate.edu/DiseaseInfo

Bulbar Paralysis, Lamziekte, Limberneck, Loin Disease, Shaker Foal Syndrome, Toxicoinfectious Botulism, Western Duck Sickness

Last Updated: Aug. 16, 2005

Importance

Botulism, caused by a Clostridium botulinum neurotoxin, can affect many species of mammals, birds, and fish. Among animals, this disease is seen most often in waterfowl, poultry, mink, cattle, sheep, horses, and some species of fish; an estimated 10 to 50 thousand wild waterfowl are killed annually by botulism. A form of botulism also appears to be responsible for the shaker foal syndrome in horses. In humans, C. botulinum can cause descending flaccid paralysis, generally beginning with the cranial nerves and - if left untreated - progressing through the body causing respiratory and limb paralysis. Death due to respiratory failure occurs in approximately 5% of human cases. Botulinum toxins can be used as a bioterrorist weapon spread by aerosol, or contamination of food or drink, therefore all cases should be reported immediately and thoroughly investigated. Naturally caused cases of botulism are rare in domestic mammals in the United States; cases in wildfowl and poultry are more common.

Etiology

Clostridium botulinum is a spore-forming, anaerobic bacterium which produces a potent neurotoxin. Botulism can result from the ingestion of preformed toxin or the growth of C. botulinum in anaerobic tissues. Seven types of botulism toxin are known, designated by the letters A through G. Types A, B, E and F cause illness in humans. Type C is the most common cause of botulism in animals. Type D is sometimes seen in cattle and dogs, and type B can occur in horses. Types A and E are found occasionally in mink and birds. Type G rarely causes disease, although a few cases have been seen in humans. All types of botulinum toxin produce the same disease; however, the toxin type is important if antiserum is used for treatment.
Species affected

Many species of mammals and birds, as well as some fish, can be affected by botulism. Clinical disease is seen most often in wildfowl, poultry, mink, cattle, sheep, horses, and some species of fish. Dogs, cats, and pigs are relatively resistant; botulism is seen occasionally in dogs and pigs but has not been reported from cats.

Geographic distribution

_C. botulinum_ is found in the soil worldwide. In ruminants, botulism mainly occurs in areas where phosphorus or protein deficiencies are found. Botulism is seen regularly in cattle in South Africa and sheep in Australia. This disease is rare in ruminants in the United States, although a few cases have been reported in Texas and Montana.

Transmission

Although _C. botulinum_ and its spores are widely distributed in soils, the intestinal tracts of fish and mammals, and the gills and viscera of shellfish, the bacteria can only grow under anaerobic conditions. Botulism occurs when animals ingest the preformed toxins in food or _C. botulinum_ spores germinate in anaerobic tissues and produce toxins as they grow.

Preformed toxins can be found in a variety of sources, including decaying vegetable matter (grass, hay, grain, spoiled silage) and carcasses. Carnivores usually ingest the toxins in contaminated meat such as chopped raw meat or fish. Ruminants in phosphorus-deficient areas may chew bones and scraps of attached meat; a gram of dried flesh can have enough botulinum toxin to kill a cow. Ruminants may also be fed hay or silage contaminated by the toxin-containing carcasses of birds or mammals. Horses usually ingest the toxin in contaminated forage. Birds can ingest the toxins in maggots that have fed on contaminated carcasses or in dead invertebrates from water with decaying vegetation. Cannibalism and contaminated feed may also result in cases in poultry.

The toxicoinfectious form of botulism occurs when an anaerobic wound is contaminated with _C. botulinum_. Sites predisposed to _C. botulinum_ infection can include gastrointestinal ulcers, abscesses in the navel, liver, or lungs, and skin or muscle wounds. This form of botulism appears to be responsible for shaker foal syndrome in horses. Toxicoinfectious botulism is also seen in chickens, when broilers are intensively reared on litter; the cause of this phenomenon is unknown.

Incubation period

The incubation period can be 2 hours to 2 weeks; in most cases, the symptoms appear after 12 to 24 hours. Mink are often found dead within 24 hours of ingesting the toxin.

Clinical signs

Botulism is characterized by progressive motor paralysis. Typical clinical signs may include muscle paralysis, difficulty chewing and swallowing, visual disturbances, and generalized weakness. Death usually results from paralysis of the respiratory or cardiac muscles.

Ruminants

In cattle, the symptoms may include drooling, restlessness, incoordination, urine retention, dysphagia,
and sternal recumbency. Laterally recumbent animals are usually very close to death. In sheep, the symptoms may include drooling, a serous nasal discharge, stiffness, and incoordination. Abdominal respiration may be observed and the tail may switch on the side. As the disease progresses, the limbs may become paralyzed and death may occur.

Horses

The clinical signs in horses are similar to cattle. The symptoms may include restlessness, knuckling, incoordination, paralysis of the tongue, drooling, and sternal recumbency. The muscle paralysis is progressive; it usually begins at the hindquarters and gradually moves to the front limbs, head, and neck.

The shaker foal syndrome is usually seen in animals less than 4 weeks old. The most characteristic signs are a stilted gait, muscle tremors, and the inability to stand for more than 4 to 5 minutes. Other symptoms may include dysphagia, constipation, mydriasis, and frequent urination. In the later stages, foals usually develop tachycardia and dyspnea. Death generally occurs 24 to 72 hours after the initial symptoms and results from respiratory paralysis. Some foals are found dead without other clinical signs.

Pigs

Pigs are relatively resistant to botulism. Reported symptoms include anorexia, refusal to drink, vomiting, pupillary dilation, and muscle paralysis.

Foxes and Mink

During outbreaks of botulism, many animals are typically found dead, while others have various degrees of paralysis and dyspnea. The clinical picture is similar in commercially raised foxes.

Birds

In poultry and wild birds, flaccid paralysis is usually seen in the legs, wings, neck, and eyelids. Wildfowl with paralyzed necks may drown. Broiler chickens with the toxicoinfectious form may also have diarrhea with excess urates.

Post mortem lesions

There are no distinct, diagnostic post mortem lesions. Respiratory paralysis may cause nonspecific signs in the lungs. In the shaker foal syndrome, the most consist lesions are excess pericardial fluid with strands of fibrin, pulmonary edema, and congestion.

Morbidity and Mortality

Botulism is common in wild waterfowl; an estimated 10 to 50 thousand wild birds are killed annually. In some large outbreaks, a million or more birds may die. Ducks appear to be affected most often. Botulism also affects commercially raised poultry. In chickens, the mortality rate varies from a few birds to 40% of the flock. Some affected birds may recover without treatment.

Botulism seems to be relatively uncommon in most domestic mammals; however, in some parts of the world, epidemics with up to 65% morbidity are seen in cattle. The prognosis is poor in large animals.
that are recumbent. In cattle, death generally occurs within 6 to 72 hours after sternal recumbency. Most dogs with botulism recover within two weeks.

Diagnosis

Clinical

A presumptive diagnosis of botulism may be made with the clinical signs and history. If possible, the diagnosis should be confirmed with testing (see below).

Differential diagnosis

Other causes of motor paralysis should be ruled out in all species. In poultry, mild infections characterized by leg paralysis should be differentiated from Marek's disease, drug or chemical toxicity, and skeletal abnormalities. In waterfowl, the differential diagnosis includes fowl cholera and chemical toxicity, particularly lead poisoning.

Laboratory Tests

Botulism can be difficult to diagnose, as the toxin is not always found in clinical samples or the feed. Diagnosis is often a matter of excluding other diseases. A definitive diagnosis can be made if botulinum toxin is identified in the feed, stomach or intestinal contents, vomitus or feces. The toxin is occasionally found in the blood in peracute cases. Botulinum toxin can be detected by a variety of techniques, including enzyme-linked immunosorbent assays (ELISAs), electrochemiluminescent (ECL) tests and mouse inoculation or feeding trials. The toxins can be typed with neutralization tests in mice.

In toxicoinfectious botulism, the organism can be cultured from tissues. C. botulinum is an anaerobic, Gram positive, spore-forming rod. On egg yolk medium, toxin-producing colonies usually display surface iridescence that extends beyond the colony.

Samples to collect

Serum, feces, gastric fluid, intestinal contents, and food suspected of contamination can be submitted for testing. Cultures may also be taken from infected wounds. Samples should be kept refrigerated.

Recommended actions if botulism is suspected

Notification of authorities

Local, state and federal authorities should be notified of any possible cases of botulism.

Federal Area Veterinarian in Charge (AVIC): http://www.aphis.usda.gov/vs/area_offices.htm


Quarantine and Disinfection

Quarantine is not necessary. Botulism is not communicable by casual contact but, in some cases, tissues from dead animals can be toxic if ingested by other animals.
Botulinum toxins are large, easily denatured proteins. They can be inactivated by exposure to sunlight, chemical disinfection with 0.1% sodium hypochlorite or 0.1 N NaOH, or heating to 80°C for 30 minutes or 100°C for 10 minutes. Chlorine and other disinfectants can destroy the toxins in water. The vegetative cells of Clostridium botulinum are susceptible to many disinfectants, including 1% sodium hypochlorite and 70% ethanol. The spores are resistant to environmental conditions but can be destroyed by moist heat (120°C for at least 15 min).

Public health

In humans, botulism is classified into three forms: foodborne, wound, and infant or intestinal botulism. Foodborne botulism is caused by ingestion of neurotoxins when food is not properly handled to control bacterial growth. Inadequate heating during canning or food preparation is the most common cause. Wound botulism is caused by contamination with soil and insufficient cleansing of wounds allowing C. botulinum spores to germinate in an anaerobic environment and produce toxin. Injectable drug users have an increased risk of wound botulism. Intestinal botulism generally occurs in children less than a year of age. It is caused by the ingestion of C. botulinum spores which germinate in the intestinal tract and produce toxin. Although honey is the most well known source of botulism in infants, many foods can potentially contain spores from the soil. Adults with altered gastrointestinal microflora are also susceptible to this form of botulism.

Foodborne and wound botulism cause a symmetrical, descending, flaccid paralysis. The cranial nerves are generally affected first causing double vision, blurred vision, drooping eyelids, slurred speech, difficulty swallowing, and dry mouth. Constipation or diarrhea, and vomiting may also be seen initially. The signs progress to paralysis of respiratory muscles, arms, and legs. Wound botulism is very similar to foodborne infections; however, gastrointestinal signs are not usually present and patients may have a wound exudate or develop a fever. Infants with botulism show similar signs with lethargy, poor feeding, constipation, drooping eyelids, difficulty swallowing, loss of head control, progressive weakness or paralysis, and respiratory depression or arrest. The onset may be gradual or sudden.

Public education on proper handling of food, refrigeration and home canning techniques helps to prevent cases of foodborne botulism. Early identification and treatment of the disease are important in recovery. In the United States where treatment is readily available, the case fatality rate for this form is 5-10%. Death is usually caused by respiratory failure. Early treatment with botulinum antitoxin may help to prevent progression of paralysis. Recovery can take months to years. The case fatality rate for hospitalized cases of infant botulism is less than 1%. Some suggest botulism may be the cause for up to 5% of sudden infant death syndrome (SIDS) cases.

For More Information

- Centers for Disease Control and Prevention (CDC)
- Material Safety Data Sheets - Canadian Laboratory Center for Disease Control
- USAMRIID's Medical Management of Biological Casualties Handbook
- U.S. FDA Foodborne Pathogenic Microorganisms and Natural Toxins Handbook (Bad Bug Book)

References


Speaker Information
(click the speaker's name to view other papers and abstracts submitted by this speaker)
FYI

-----Original Message-----

Hi ma'am:

Is the fact sheet the one recently posted on the Meade webpage? If not, could you send a copy to us? Otherwise, I can just download the copy from your webpage. Yes, I have contacted both the [redacted] and [redacted] with the following results:

I spoke with Ms. [redacted] on Sat 13 Jan. She was quite harried, and said they were busy all weekend. We did speak for about 5 minutes and, in my opinion, still sounded somewhat agitated/skeptical that the Army still isn't doing anything to find the cause. I tried my best to reassure her that the Fort Meade team was working with Anne Arundel County, and was consulting with CDC and other experts to make sure we were looking into all possible options and to ensure that our proposed actions were sound. I also tried to persuade her to arrange a time to speak with me at any time/location/method that was convenient for her (i.e., day/night/weekend/weekday/ her house/ over the phone). In the end, she was very nice, much more calm, and did take my phone numbers, saying she would call me if she was interested. I asked if I could call her back later in the week to see if she might have time, and she said ok. I tried to call again yesterday, but got no answer and there was no answering machine. and I agreed that maybe it would be best to leave it, unless you all believe I should continue to try.

I spoke with Ms. [redacted] yesterday, and she was very gracious. I believe she was sincere in her responses. She said she had no concerns, and that she thought the Garrison and Kimbrough were doing what they should be doing to look into the issue. She specifically mentioned that SGM had been to her house twice, that she'd gotten two flyers, that there had been a meeting with the Oliver Court residents this past week, and that there is another meeting this past week. As far as meeting her needs go, she said, "I'm good." She did not know of anyone else with concerns or with young children. I did give her my phone numbers in case she did come across anyone else I/ we might contact. (Ms. did specifically mention that the meeting with the Oliver Court residents was very helpful in addressing the concerns of the residents in that area, and that this particular meeting was a good idea).

My colleagues also took the name/phone number of one additional Oliver Court resident at the Tuesday night meeting, and I have followed up with that individual, but have gotten no response.

-----Original Message-----

Ms [redacted]

I certainly understand. The Fact Sheet was written and dispersed to the clinics, pharmacy, waiting areas etc........but I do appreciate the offer.
Were you able to reach the or schedule w/ the Cook's??

Thanks

-----Original Message-----
From: ..eMS USACHPPM
Sent: Thursday, January 18, 2007 9:02 AM
To: KACC-Ft Meade
Cc: Mr USACHPPM; USACHPPM
Subject: Oliver Court mtg questions
Importance: High

Ma'am:

My apologies for missing Tuesday night's meeting, but I hear things went well. Based on the notes I see in the attached file that my colleagues so kindly captured, I would like to offer to write up the fact sheet that parents requested at that meeting (reflected in question 4 on the attached file). If you would like me to do that, I would be glad to do so.

-----Original Message-----
From: Ms USACHPPM
Sent: Wednesday, January 17, 2007 12:09 PM
To: Mr USACHPPM; Ms USACHPPM
Subject: The team effort

Here are the questions presented as we heard them. I am sure will share with you how his perception of the meeting last night.

Health Risk Communication Program
Voice
Fax
DSN 888-8020
@us.army.mil

"They don't care that you know until they know that you care."
Will Rogers

-----Original Message-----
From: Mr USACHPPM
Sent: Wednesday, January 17, 2007 12:03 PM
To: Ms USACHPPM
Subject: FW:

Looks like you captured almost all of the questions.

I added two in yellow.

-----Original Message-----
From: Ms USACHPPM
Sent: Wednesday, January 17, 2007 11:39 AM
To: Mr USACHPPM
Cc: Ms USACHPPM
Subject:
"They don't care that you know until they know that you care."

Will Rogers
Per your request, please let me know if you need more info. Ma'am the third attachment was the one distributed to the clinics and KACC waiting areas.

Thanks,

-----Original Message-----
From: COL KACC-Ft Meade
Sent: Monday, January 22, 2007 6:29 PM
To: Ms KACC-Ft Meade;
Subject: RE: Partner CDR's Luncheon

O.K.

Could you please forward me the electronic version of the fact sheet you developed for the infant botulism and any other information you feel would be useful to distribute to the commanders of the units of Ft Meade. Thank you,

"Army Strong--One Team"

Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
DSN 622-

-----Original Message-----
From: Ms KACC-Ft Meade
Sent: Monday, January 22, 2007 5:26 PM
To: KACC-Ft Meade
Subject: Partner CDR's Luncheon

Mr. asked if we could get any information we have to be included in the "Information Package" for the luncheon on Wednesday, to him by noon tomorrow.
FACT SHEET ON ANIMAL BOTULISM (for Ft Meade Internet)

Botulism can occur in a wide range of animals, poultry, waterfowl and wildlife. Livestock such as horses, cattle, and sheep can be infected with botulism in association with ingesting contaminated hay or feedstuff.

Botulism cases in domestic animals such as cats or dogs are relatively rare. However, those cases that have occurred have been associated with the consumption of carrion or contaminated food. But again keep in mind that botulism is rare in household pets.

Signs and symptoms of illness that should be reported to your Veterinarian are diarrhea, weakness, loss of appetite and paralysis.

There have not been any increases in the number of abnormal pet deaths reported through the Veterinary Treatment Facility. There has been a heightened awareness and we will continue to monitor and report any abnormal trends.

DVM, DABVP

DVM

Note: There is no central repository that would track pet deaths on Fort Meade. When owners report their deaths to Veterinarian Clinic in order to have records removed from clinic this is usually the only means of awareness.
MESSAGE FROM THE INSTALLATION COMMANDER

INFANT BOTULISM FACT SHEET

Walter Reed Army Medical Center has identified two cases of infant botulism at Fort Meade since Oct. 2006. One infant has recovered while the other infant is being treated by doctors at Walter Reed Army Medical Center. The infants, both under the age of 6 months at the time of diagnosis, were treated at Walter Reed Army Medical Center. The cause is currently under investigation by the Preventive Medicine Services at Kimbrough Ambulatory Care Center on Fort Meade. LTC Sharon Cole-Wainwright, Chief of Preventive Medicine at Kimbrough Ambulatory Care Center said, "while the name of the disease can be frightening, infant botulism is a treatable condition associated with swallowing the botulinum bacteria found naturally in soils and in some contaminated food products. It is premature to speculate about a particular source until the investigation is complete." Cases of Infant Botulism are rare and usually occur among infants less than 6 months of age.

What are the symptoms of Infant Botulism?

Any or all of the following:
- constipation
- poor feeding and a weak suck
- weak cry
- loss of head control
- difficulty swallowing
- excessive drooling
- floppy appearance or "floppy baby"
- generalized weakness
- breathing difficulties

What do you do if your infant is experiencing these symptoms?

Call (301) 677-8606 or go to the nearest Emergency Room
- Howard County General Hospital 5755 Cedar Lane, Columbia, Maryland (410) 740-7890 or 7990
- Laurel Regional Hospital 7300 Van Dusen Road, Laurel, Maryland (301) 725-4300 or (410) 792-2270
- Baltimore Washington Medical Center, 301 Hospital Drive, Glen Burnie, Maryland (410) 787-4000

How is Infant Botulism treated?

Prompt diagnosis is essential. Medication is available to treat the condition.

How can I reduce the risk of contracting Infant Botulism?

- Wash hands frequently
- Avoid giving honey to infants less than 1 year of age
- Routine and frequent cleaning of toys—particularly items that babies place in their mouths and those toys which have fallen on the ground or floor
- Through proper preparation of foods (boiling and cooking)
- Avoid cans of food/formula with dents or that are bulging or rusting
- Avoid locations with excessive dust and debris

For further information about the disease, contact Kimbrough Ambulatory Care Clinic, Preventive Medicine Services (301) 677-8661. If you have other questions or are contacted by the media please refer them to the Fort Meade Public Affairs Office at (301) 677-1436 or 1486.
INFANT BOTULISM FACT SHEET

Infant botulism is a treatable condition associated with swallowing the botulinum bacteria found naturally in soils and in some contaminated food products. Infant botulism is not contagious, and person-to-person transmission is not known to occur. An infant must eat the bacterial spores that then multiply and produce the toxin in the digestive tract. Cases of Infant Botulism are rare and usually occur among infants less than 6 months of age.

What are the symptoms of Infant Botulism?

Any or all of the following:
- constipation
- poor feeding and a weak suck
- weak cry
- loss of head control
- difficulty swallowing
- excessive drooling
- floppy appearance or "floppy baby"
- generalized weakness
- breathing difficulties

What do you do if your infant is experiencing these symptoms?

Call (301) 677-8606 or go to the nearest Emergency Room
- Howard County General Hospital 5755 Cedar Lane, Columbia, Maryland (410) 740-7890 or 7990
- Laurel Regional Hospital 7300 Van Dusen Road, Laurel, Maryland (301) 725-4300 or (410) 792-2270
- Baltimore Washington Medical Center, 301 Hospital Drive, Glen Burnie, Maryland (410) 787-4000

How is Infant Botulism treated?

Prompt diagnosis is essential. Medication is available to treat the condition.

How can I reduce the risk of contracting Infant Botulism?

- Wash hands frequently
- Avoid giving honey to infants less than 1 year of age
- Routine and frequent cleaning of toys--particularly items that babies place in their mouths and those toys which have fallen on the ground or floor
- Through proper preparation of foods (boiling and cooking)
- Avoid cans of food/formula with dents or that are bulging or rusting
- Avoid locations with excessive dust and debris

For further information about the disease, contact Kimbrough Ambulatory Care Clinic, Preventive Medicine Services (301) 677-8435.
FYI only

-----Original Message-----
From: MAJ USACHPPM-Wash DC
Sent: Wednesday, January 24, 2007 10:56 AM
To: KACC-Ft Meade
Subject: RE: RMES DAILY REPORT (06 October 2006)

Maam:

It wasn't linked.

However, in the week that the first case was reported, CDC sent out an alert with EPI on about botulism associated with carrot juice (foodborne botulism). When we saw the case in the RMES report we contacted Ms. at WRAMC to see if there was a link and what the cause was of the infants botulism.

-----Original Message-----
From: KACC-Ft Meade
Sent: Wednesday, January 24, 2007 10:53 AM
To: USACHPPM; USACHPPM
Subject: RE: RMES DAILY REPORT (06 October 2006)

Could we get a copy of the info?

Thanks much

-----Original Message-----
From: SOL USACHPPM
Sent: Monday, January 22, 2007 12:15 PM
To: KACC-Ft Meade; USACHPPM; MAJ USACHPPM-Wash DC; USACHPPM
Subject: RE: RMES DAILY REPORT (06 October 2006)

Yes

-----Original Message-----
From: KACC-Ft Meade
Sent: Monday, January 22, 2007 11:33 AM
To: MAJ USACHPPM-Wash DC; MAJ USACHPPM
Subject: RE: RMES DAILY REPORT (06 October 2006)
Importance: High

Is this the 1st case that they are speaking of??

Thanks,
CHPPM was aware of the infant botulism case that was reported in RMES 5 OCT 2006. Actually, there was an EPI-X report about botulism linked to carrot juice (60CT2006) and I had contacted [infection control nurse at WRAMC] about this (see message below).

Any chance you could let us know the likely source of infection? The cases in the outbreak seem to be linked to intake of a specific brand of carrot juice.

thank you for this.

RN, MS, CORN-S, CIC
Walter Reed Army Medical Center
6900 Georgia Ave N.W.
Washington, DC 20307

fax
@na.amedd.army.mil
From: USACHPPM
Sent: Tuesday, October 10, 2006 8:32 AM
To: Ms WRAMC-Wash DC
Subject: FW: RMES DAILY REPORT (06 October 2006)

Sorry I didn't get this to you on Friday.

From: AMSA MAIL
Sent: Friday, October 06, 2006 10:04 AM
Subject: RMES DAILY REPORT (06 October 2006)

The daily report is attached.
Good day,

As we all discussed at last week's town hall meeting, below is a short weekly update of the EPICON team actions to date. I know we discussed you speaking personally with just the 3-5 families with the highest level of interest (which is certainly the most effective way to discuss concerns of those particular families). However, I strongly encourage that this information be widely publicized beyond just that group to preempt potential media focus (which is possible and potentially likely based on past community interest and history of actions). I'll be out of the office beginning this afternoon until Monday morning, but can still read email via my Blackberry. Please let me know what else I can provide to you.

The Maryland DHMH Laboratory has contacted the Center for Disease Control and Prevention (CDC in Atlanta, GA) to see if they are willing to do a CDC response by the end of the week.

The EPICON team is continuing discussions with the Maryland Department of Health and Mental Hygiene (DHMH), the CDC, the laboratory in California, Fort Meade medical authorities and other experts in this field to determine next steps in the investigation.

The Army's Medical Surveillance Activity (AMSA) is also working on a retrospective analysis of botulism cases for 1996-2005 for publication in their Medical Surveillance Monthly Report (MSMR) article. These reports are available online at:

http://amsa.army.mil/AMSA/amsa_home.htm
I'll let Dr. Blythe comment on the false sense of direct and active CDC collaboration; but
the should know that we did not "take CDC off the case" per se. CDC neither invited
itself to directly investigate nor showed any interest in conducting laboratory testing
initially.

On the point about time it takes to get results, the would need to be specific what
test they're talking about. The initial toxin analysis, for example, was resulted way
back. Culturing could take much less time as well, but is not as simple and reliable
(actually, not as sensitive if stool is absent organisms or low inoculum / low count) as
some would have the believe. More importantly than any of this, however, is that it
is NO IMPACT OR IMPORTANCE WHATSOEVER to the clinical care of these babies or our
ability to predict a third case. Neither is environmental testing. While they are not
altogether irrelevant to the individual or family risks in that community, they are
irrelevant from the standpoint of prediction or mitigation---which is all that any parent
would have practical cause to publicize via the media. It is a non-issue, and I would
challenge any world expert to tell otherwise with good evidence to back up their
opinion.

Thanks for making the communication. I am happy to 'augment' as needed.

----Original Message-----

From: LTC KACC-Ft Meade
Sent: Wednesday, January 31, 2007 3:47 PM
To: COL USACHPPM; hdruss11@aacounty.org
Cc: COL USACHPPM
Subject: FW: Ft Meade EPICON update
Importance: High

ALCON,

As per our conversation I did return call to give him an update as to the results
of the state testing and the fact that we were awaiting a response from CDC as to whether
they are willing to perform the subtyping and from this we would determine our next COA.
He was comfortable with the response but had several concerns and questions:

- Was he not to contact the state since I was returning his call - I assured him that he
  was certainly able to contact the state and reminded him that Dr Russo had in fact given
  them her card so that they could contact her if they needed to do so. Reinforced that we
  were working together as a team i.e.. EPICON Team, State and Fort Meade

- Why has it taken the state so long to get this answer? He had spoken with several
  microbiologist experts (one from Finland) and was told that results could have been
  received within 2-3 days, and it had taken until now to get lab results...

- Someone (not sure of name, he would call me back with that name) from the CDC had
  notified him that they (CDC) had been taken off of the case so why were we waiting to hear
  from the CDC on conducting further testing? Why couldn't the specimen be sent to another
  lab for testing (he stated he had researched and spoke to several different labs who could
  and were willing to do the testing)

- Why are we not testing the soil? He was told by the CDC that soil testing would be
  performed before they were taken off of the case........
Good day COL

As we all discussed at last week's town hall meeting, below is a short weekly update of the EPICON team actions to date. I know we discussed you speaking personally with just the 3-5 families with the highest level of interest (which is certainly the most effective way to discuss concerns of this particular families). However, I strongly encourage that this information be widely publicized beyond just that group to preempt potential media focus (which is possible and potentially likely based on past community interest and history of actions). I'll be out of the office beginning this afternoon until Monday morning, but can still read email via my Blackberry. Please let me know what else I can provide to you.

+++++++++++++++++++++++++++++++

On January 31, 2007, the Maryland Department of Health and Mental Hygiene (DHMH) laboratory has contacted the Center for Disease Control and Prevention (CDC in Atlanta, GA) to see if they are willing to do the subtyping and expect a CDC response by the end of the week.

The EPICON team is continuing discussions with the Maryland Department of Health and Mental Hygiene (DHMH), the CDC, the laboratory in California, Fort Meade medical authorities and other experts in this field to determine next steps in the investigation.

The Army's Medical Surveillance Activity (AMSA) is also working on a retrospective analysis of botulism cases for 1996-2005 for publication in their Medical Surveillance Monthly Report (MSMR) article. These reports are available online at:

http://amsa.army.mil/AMSA/amsa_home.htm
CONFIDENTIAL

I agree with Anne Arundel's Dr. Farrell (see below), and have let her know that I will be discussing with you how we approach [REDACTED] re: elucidating and addressing this aspect of the problem. Let's talk in a.m. if possible.

Sent from my BlackBerry Wireless Handheld

-----Original Message-----
From: Katherine Farrell <hdfarrell@aacounty.org>
To: COL USACHPPM
Sent: Sun Feb 04 10:48:00 2007
Subject: Re: Fwd: washington post coverage

...a further wrinkle! We asked one of our psychologists for help responding to the issues and he felt strongly that he is having serious mental health issues and that we have a responsibility to inform his superior officer. He felt the combination of anger, paranoid ideation, loss of contact with reality and obsession with this issue could lead to trouble and referred to him "doing something" in which case a lawsuit might be a welcome direction for his energies.

We have no idea who his superior officer might be but again think its really important someone Army be involved with talking to him and in view of this maybe it should be someone with a mental health background.

Katherine P. Farrell MD MPH
Deputy Health Officer for Public Health
Anne Arundel County Department of Health
3 Harry S. Truman Parkway
Annapolis, MD 21401
Phone 410-222-7252
Fax 410-222-7088

Katherine, 
Sorry I didn't answer today. Really appreciated the heads up on [REDACTED] perceptions. There's now talk of a lawsuit against Army. Will keep you posted, at very least thru Kelly Russo--who has been wonderful throughout this ordeal.

Good weekend,

Sent from my BlackBerry Wireless Handheld

-----Original Message-----
From: Katherine Farrell <hdfarrell@aacounty.org>
To: COL USACHPPM
Sent: Thu Feb 01 23:40:54 2007
Subject: Fwd: washington post coverage

Sorry, I left out a letter in your e-mail so this bounced back. here it is again.

Katherine P. Farrell MD MPH
Deputy Health Officer for Public Health
Anne Arundel County Department of Health
3 Harry S. Truman Parkway
Annapolis, MD 21401
Phone 410-222-7252
Fax 410-222-7088
Vexing infant botulism provokes threat of suit By Bradley Olson Sun Reporter Originally published February 3, 2007 It’s one of the rarest infectious diseases, affecting an average of only 100 babies a year in the United States, but infant botulism infected two babies living on the same street at Fort Meade in recent months - puzzling researchers.

Clusters of the illness are not unprecedented, experts say, and the ubiquity of the bacterial spores that cause infant botulism makes isolating one source almost impossible.

That is especially true in this case, where the military base also happens to be an Environmental Protection Agency Superfund site.

Both children survived the illness, but one family confirmed yesterday that it has hired a lawyer who will likely sue the Army, claiming that military officials have been negligent in seeking the cause of the outbreak. The parents of the other child say they do not blame the military and do not plan to join a lawsuit.
On Thursday, base officials confirmed that both cases, the first diagnosed in October and the second in December, came from the same strain of Clostridium botulinum bacteria.

"I would be hesitant to reassure everyone by saying this is a freak thing and this is over," said Col. Bruno Petruccelli, a physician and director of epidemiology and disease surveillance at the U.S. Army Center for Health Promotion and Preventive Medicine in Aberdeen. "Maybe there will be a third case and a fourth case. We can't say there won't be another one."

Army doctors involved in the investigation say they have followed medical protocol, conducting an investigation with help from experts at the Centers for Disease Control and Prevention in Atlanta, Walter Reed Army Medical Center, Maryland Public Health Administration and Anne Arundel County Department of Public Health.

Infant botulism develops in newborns—usually those between 3 weeks and 6 months of age—when they ingest bacteria that produce a toxin inside the large intestine. The toxin attaches to nerves in the body and paralyzes them. Although the condition is treatable and most babies eventually recover, it causes several frightening symptoms, including paralysis and respiratory problems.

Such was the case with [redacted], whose family lives on the Anne Arundel County military base.

On Oct. 2, [redacted] noticed that the baby became fussy and was not feeding well. Thinking he was teething, she put him to bed. The next morning, he made an odd, grunting sound, and when she picked him up, his head flopped.

She took him to Bethesda Naval Hospital, where doctors, thinking [redacted] was dehydrated, gave him fluids intravenously. When his eyes began to gloss over, Cook recalled, Jonathan was rushed to Walter Reed Army Hospital, where a young physician noticed symptoms of infant botulism she had seen in a case during her residency.

She went home to research the condition and in the meantime, doctors tested him for meningitis. When that came back negative, they sent him to get a CT scan to rule out a neurological disorder. During the scan, [redacted] vital signs plunged, and a gaggle of doctors and nurses rushed into the room, reviving him and putting him on oxygen.

Once infant botulism was definitively diagnosed, they treated him with a drug called "Baby-BIG," which slightly relieves symptoms and doesn't allow the toxin to paralyze any other nerves.

"My son was so sick, he couldn't even open his eyes," [redacted] said. "He had over 50 needle marks in him because his veins kept busting. To watch that, it was absolutely the most terrifying, horrible experience I've had to go through as a mother, and I've got four kids. I don't want any other families to have to go through that."

[redacted] has been fine since his recovery, but his mother became angry when, on Jan. 9, a Walter Reed doctor called her to say another child on her street had been diagnosed with infant botulism. At that point, she became convinced that the military was not committed to finding a cause.

Michael Archuleta, a Texas-based lawyer who is also a physician and is representing the [redacted] family, said he believes a pile of debris, about a block from the street where both families live, is the source of the toxin, and will file a negligence claim with the Army.

"We have two cases of infant botulism occurring in the same time frame, very close to one another, that is epidemiologically very improbable unless it came from an external or environmental source," he said.

A base spokeswoman confirmed that there was a debris pile and said it was removed and the site was covered with hay on Jan. 7.

The mother of the second child, who asked not to be identified when contacted by The Sun, said that her daughter is no longer sick and that she does not wish to join any potential lawsuit.
In interviews with both families, investigators have determined that the source was not food such as honey, which has proved to be a source of infant botulism.

Fort Meade and Army officials, as well as several leading independent epidemiologists and infectious disease experts, insist that testing soil in infant botulism cases would be fruitless because the bacterial spores that cause it are common and naturally occurring.

Dr. John Bartlett, a professor of medicine at the Johns Hopkins University who specializes in infectious diseases but is not involved in these cases, said that testing soil is "pointless."

"That kind of activity just doesn't pay off," he said. "You don't look for it in dirt, and even looking for it in a food source is going to be a long shot. I mean, two cases in the same geographic area are unusual, but I wouldn't know quite how to go about finding a source. Usually, we don't try because we don't find it."

Archuleta and the believe that DNA testing could establish an exact match between the two cases and the dirt pile or other soils, and they intend to use that evidence in any litigation.

The toxin is too ubiquitous, Petrucelli, the Army epidemiologist, said, and the DNA-testing process too inconclusive. That Fort Meade was built on a landfill and is currently monitored by the Environmental Protection Agency would not have any impact, because those sites focus on chemical agents and other toxic substances, not naturally occurring substances, he said.

Dr. James Campbell, a pediatric infectious disease specialist at the University of Maryland School of Medicine, who is not involved in the case, said unlike food-borne botulism, which generally infects adults and which investigators almost always link to a food source, there is often no identified source for the infant variety.

bradley.olson@baltsun.com <http://www.baltimoresun.com/about/bal-reporterfeedback,0,4526743.htmlstory?recipient=bradley.olson@baltsun.com>
From: @us.army.mil
Sent: Monday, February 05, 2007 5:57 AM
To: KACC-Ft Meade
Subject: Fwd: RE: Ft Meade EPICON update
Attachments: RE: Ft Meade EPICON update

RE: Ft Meade EPICON update
FYI
Per our conversation, here is the media request that I got from the Baltimore Sun:

Reporter: Brad Olson
Baltimore Sun
Phone: (410) 332-6100
E-mail: bradley.olson@baltsun.com

Request:

Mrs. [name] called the Baltimore Sun claiming that the installation is not doing enough to find out what caused the isolated cases of infant botulism at FEGM. Is the post going to be testing the environment, specifically the soil? If not, why was that decision made? Mr. Olson also had questions about how the investigation is going. I sent him a copy of the most up-to-date news release, which is attached in this e-mail. The deadline for this story is 4 p.m. on 2 Feb.

We are requesting that USACHPPM provide a subject matter expert who can comment on the investigation to the reporter and explain why the installation is not doing environmental testing.

We also wanted to inform you that [name] in our office was misquoted in the Washington Post yesterday. Travis was trying to explain that botulism is everywhere in the soil.

Then he said in an answer that we the installation would do whatever needed to be done to investigate the cause.

The reporter made the lead connection incorrectly that we would be doing environmental testing and were just waiting for the results. We will do a retraction with the Post.

Call me if you have a question. My staff is doing an excellent job trying to keep this from making another story. But we may need your help.
Good day

As we all discussed at last week's town hall meeting, below is a short weekly update of the EPICON team actions to date. I know we discussed you speaking personally with just the 3-5 families with the highest level of interest (which is certainly the most effective way to discuss concerns of those particular families). However, I strongly encourage that this information be widely publicized beyond just that group to preempt potential media focus (which is possible and potentially likely based on past community interest and history of actions). I'll be out of the office beginning this afternoon until Monday morning, but can still read email via my Blackberry. Please let me know what else I can provide to you.

+----------------------------------------------------------------------------------------------------------------------------------+
+++                                                                                                                                  +

Expected: The Maryland DHMH Laboratory has contacted the Center for Disease Control and Prevention (CDC in Atlanta, GA) to see if they are willing to do the subtyping and expect a CDC response by the end of the week.

The EPICON team is continuing discussions with the Maryland Department of Health and Mental Hygiene (DHMH), the CDC, the laboratory in California, Fort Meade medical authorities and other experts in this field to determine next steps in the investigation.

The Army's Medical Surveillance Activity (AMSA) is also working on a retrospective analysis of botulism cases for 1996-2005 for publication in their Medical Surveillance Monthly Report (MSMR) article. These reports are available online at:

http://amsa.army.mil/AMSA/amsa_home.htm
FOR IMMEDIATE RELEASE

Feb. 1, 2007

Infant botulism investigation update

FORT GEORGE G. MEADE, MD., -- Maryland health officials have confirmed the presence of Type B Clostridium botulinum bacteria from both cases of infant botulism recently diagnosed at Fort Meade. This confirmation was expected as this type of botulism strain is typically found on the East Coast.

The first case of infant botulism was diagnosed in October 2006 and the second in December 2006. Both children have since been treated and are recovering. The children live on Oliver Court at Fort Meade.

The Maryland Department of Health and Mental Hygiene (DHMH) have contacted the Center for Disease Control and Prevention in Atlanta, Ga., to determine if they are willing to do subtyping of the bacteria.

Investigators continue to discuss and coordinate with DHMH, CDC, Fort Meade medical authorities and other experts as they work towards completing the investigation.

In addition, the Army's Medical Surveillance Activity (AMSA) is also working on a retrospective analysis of botulism cases from 1996-2005 for publication in their Medical Surveillance Monthly Report (MSMR) article. These reports are available online at http://amsa.army.mil/AMSA/amsa_home.htm.

EDITOR’S NOTE: For more information please contact Summer Barkley at (301) 677-1436 or Jennifer Downing at (301) 677-1486.
RE: Request for Information

FYI
NOT FOR RELEASE

Subject: Botulism UPDATE

EXSUM

February 2, 2007

Botulism UPDATE

FGGM PAO had requests for information about the cases of infant botulism from media outlets including:

1. The Baltimore Sun
2. Fox 5, D.C. (query complete)
3. WJLA Channel 7, D.C. (a crew came to the Reece Road gate for a live shot around 1800)

BACKGROUND as I know it:

The created another media day around the botulism situation on Fort Meade. Mr. told his commander at DINFOS he feels it is his duty to expose the installation because he feels we are covering something up. Their concern is based on the fact the inspectors are not doing any environmental testing in his neighborhood. They have hired an environmental lawyer in Austin to sue the installation. And they are contacting the media to ensure their voices are heard. (Just so you know we did not know about the lawsuit before the interview. The reporter used it as one of the opening questions when they arrived back at the installation.)

The problem is this is wrong. We are not involved in a cover up of any kind. In fact the command has been very proactive about the whole thing.

So we are doing the best we can to counter their attacks by having the experts at United States Army Center for Health Promotion and Preventive Medicine (CHPPM) available for the reporters to talk to. Today the Baltimore Sun reporter Brad Olsen talked to CHPPM via phone. The reporter had questions for the installation as well.

Our basic message was that until the investigations are complete any comments on causes would be speculative. Ft. Meade continues to cooperate fully with US Army, Anne Arundel County, Maryland and Centers for Disease Control investigators.
proactive in notifying the community and addressing their concerns.

When asked about the debris pile near the home we said; "Concrete construction debris was temporarily stored at the site in preparation for crushing and re-use on other projects. Crushing occurred on Oct. 31, Nov. 1-3 and Nov. 7. The crushed concrete was moved from the site and it used as road fill. The area in question was hydro-seeded on Jan 7 and hay was laid over the seed to allow it to germinate.

Colonel [redacted] went on camera this afternoon on channel 7 WJLA in Washington (ABC). She stuck to the same messages we had put out before. The Clostridium botulinum bacteria is a naturally occurring bacteria that is found anywhere in the environment. Therefore we don’t plan to do any soil sampling or air quality sampling because it exists everywhere in Maryland. We don’t have any answers right now because the investigation is not complete. But we are working together with Anne Arundel County, Maryland and Centers for Disease Control investigators. She also emphasis that very likely we would not ever be able to point to an exact cause.

The first newscast at 6:00 was very short. It basically said the [redacted] were suing the Army. They did not use any of the footage from [redacted]. They filmed an intro around 7pm and said the real story would be on the 10:00 news tonight.

We will continue to monitor the situation and send reports up as we have them.

Fort Meade, MD 20755

Vexing infant botulism provokes threat of suit

By Bradley Olson
Sun Reporter

Originally published February 3, 2007

It's one of the rarest infectious diseases, affecting an average of only 100 babies a year in the United States, but infant botulism infected two babies living on the same street at Fort Meade in recent months - puzzling researchers.

Clusters of the illness are not unprecedented, experts say, and the ubiquity of the bacterial spores that cause infant botulism makes isolating one source almost impossible.

That is especially true in this case, where the military base also happens to be an Environmental Protection Agency Superfund site.

Both children survived the illness, but one family confirmed yesterday that it has hired a lawyer who will likely sue the Army, claiming that military officials have been negligent in seeking the cause of the outbreak. The parents of the other child say they do not blame the military and do not plan to join a lawsuit.

On Thursday, base officials confirmed that both cases, the first diagnosed in October and
the second in December, came from the same strain of Clostridium botulinum bacteria.

"I would be hesitant to reassure everyone by saying this is a freak thing and this is over," said Col. Bruno Petruccelli, a physician and director of epidemiology and disease surveillance at the U.S. Army Center for Health Promotion and Preventive Medicine in Aberdeen. "Maybe there will be a third case and a fourth case. We can't say there won't be another one."

Army doctors involved in the investigation say they have followed medical protocol, conducting an investigation with help from experts at the Centers for Disease Control and Prevention in Atlanta, Walter Reed Army Medical Center, Maryland Public Health Administration and Anne Arundel County Department of Public Health.

Infant botulism develops in newborns - usually those between 3 weeks and 6 months of age - when they ingest bacteria that produce a toxin inside the large intestine. The toxin attaches to nerves in the body and paralyzes them. Although the condition is treatable and most babies eventually recover, it causes several frightening symptoms, including paralysis and respiratory problems.

Such was the case with [redacted], whose family lives on the Anne Arundel County military base.

On Oct. 2, [redacted] noticed that the baby became fussy and was not feeding well. Thinking he was teething, she put him to bed. The next morning, he made an odd, grunting sound, and when she picked him up, his head flopped.

She took him to Bethesda Naval Hospital, where doctors, thinking he was dehydrated, gave him fluids intravenously. When his eyes began to gloss over, [redacted] recalled, he was rushed to Walter Reed Army Hospital, where a young physician noticed symptoms of infant botulism she had seen in a case during her residency.

She went home to research the condition and in the meantime, doctors tested him for meningitis. When that came back negative, they sent him to get a CT scan to rule out a neurological disorder. During the scan, [redacted] vital signs plunged, and a gaggle of doctors and nurses rushed into the room, reviving him and putting him on oxygen.

Once infant botulism was definitively diagnosed, they treated him with a drug called "Baby-BIG," which slightly relieves symptoms and doesn't allow the toxin to paralyze any other nerves.

"My son was so sick, he couldn't even open his eyes," [redacted] said. "He had over 50 needle marks in him because his veins kept busting. To watch that, it was absolutely the most terrifying, horrible experience I've had to go through as a mother, and I've got four kids. I don't want any other families to have to go through that."

[redacted] has been fine since his recovery, but his mother became angry when, on Jan. 9, a Walter Reed doctor called her to say another child on her street had been diagnosed with infant botulism. At that point, she became convinced that the military was not committed to finding a cause.

Michael Archuleta, a Texas-based lawyer who is also a physician and is representing the [redacted] family, said he believes a pile of debris, about a block from the street where both families live, is the source of the toxin, and will file a negligence claim with the Army.

"We have two cases of infant botulism occurring in the same time frame, very close to one another, that is epidemiologically very improbable unless it came from an external or environmental source," he said.

A base spokeswoman confirmed that there was a debris pile and said it was removed and the site was covered with hay on Jan. 7.

The mother of the second child, who asked not to be identified when contacted by The Sun, said that her daughter is no longer sick and that she does not wish to join any potential lawsuit.

In interviews with both families, investigators have determined that the source was not food such as honey, which has proved to be a source of infant botulism.
Fort Meade and Army officials, as well as several leading independent epidemiologists and infectious disease experts, insist that testing soil in infant botulism cases would be fruitless because the bacterial spores that cause it are common and naturally occurring.

Dr. John Bartlett, a professor of medicine at the Johns Hopkins University who specializes in infectious diseases but is not involved in these cases, said that testing soil is "pointless."

"That kind of activity just doesn't pay off," he said. "You don't look for it in dirt, and even looking for it in a food source is going to be a long shot. I mean, two cases in the same geographic area are unusual, but I wouldn't know quite how to go about finding a source. Usually, we don't try because we don't find it."

Archuleta and the believe that DNA testing could establish an exact match between the two cases and the dirt pile or other soils, and they intend to use that evidence in any litigation.

The toxin is too ubiquitous, Petrucelli, the Army epidemiologist, said, and the DNA-testing process too inconclusive. That Fort Meade was built on a landfill and is currently monitored by the Environmental Protection Agency would not have any impact, because those sites focus on chemical agents and other toxic substances, not naturally occurring substances, he said.

Dr. James Campbell, a pediatric infectious disease specialist at the University of Maryland School of Medicine, who is not involved in the case, said unlike food-borne botulism, which generally infects adults and which investigators almost always link to a food source, there is often no identified source for the infant variety.

bradley.olson@baltsun.com <http://www.baltimoresun.com/about/bal-reporterfeedback,0,4526743.htmlstory?recipient=bradley.olson@baltsun.com>
Vexing infant botulism provokes threat of suit

BY BRADLEY OLSON
SUN REPORTER

ORIGINALLY PUBLISHED FEBRUARY 3, 2007

It's one of the rarest infectious diseases, affecting an average of only 100 babies a year in the United States, but infant botulism infected two babies living on the same street at Fort Meade in recent months - puzzling researchers.

Clusters of the illness are not unprecedented, experts say, and the ubiquity of the bacterial spores that cause infant botulism makes isolating one source almost impossible.

That is especially true in this case, where the military base also happens to be an Environmental Protection Agency Superfund site.

Both children survived the illness, but one family confirmed yesterday that it has hired a lawyer who will likely sue the Army, claiming that military officials have been negligent in seeking the cause of the outbreak. The parents of the other child say they do not blame the military and do not plan to join a lawsuit.

On Thursday, base officials confirmed that both cases, the first diagnosed in October and the second in December, came from the same strain of Clostridium botulinum bacteria.
"I would be hesitant to reassure everyone by saying this is a freak thing and this is over," said Col. Bruno Petruccelli, a physician and director of epidemiology and disease surveillance at the U.S. Army Center for Health Promotion and Preventive Medicine in Aberdeen. "Maybe there will be a third case and a fourth case. We can't say there won't be another one."

Army doctors involved in the investigation say they have followed medical protocol, conducting an investigation with help from experts at the Centers for Disease Control and Prevention in Atlanta, Walter Reed Army Medical Center, Maryland Public Health Administration and Anne Arundel County Department of Public Health.

Infant botulism develops in newborns - usually those between 3 weeks and 6 months of age - when they ingest bacteria that produce a toxin inside the large intestine. The toxin attaches to nerves in the body and paralyzes them. Although the condition is treatable and most babies eventually recover, it causes several frightening symptoms, including paralysis and respiratory problems.

Such was the case with [redacted] now [redacted] whose family lives on the Anne Arundel County military base.

On Oct. 2, [redacted] noticed that the baby became fussy and was not feeding well. Thinking he was teething, she put him to bed. The next morning, he made an odd, grunting sound, and when she picked him up, his head flopped.

She took him to Bethesda Naval Hospital, where doctors, thinking [redacted] dehydrated, gave him fluids intravenously. When his eyes began to gloss over, [redacted] recalled, [redacted] was rushed to Walter Reed Army Hospital, where a young physician noticed symptoms of infant botulism she had seen in a case during her residency.

She went home to research the condition and in the meantime, doctors tested him for meningitis. When that came back negative, they sent him to get a CT scan to rule out a neurological disorder. During the scan, [redacted] vital signs plunged, and a gaggle of doctors and nurses rushed into the room, reviving him and putting him on oxygen.

Once infant botulism was definitively diagnosed, they treated him with a drug called "Baby-BIG," which slightly relieves symptoms and doesn't allow the toxin to paralyze any other nerves.

"My son was so sick, he couldn't even open his eyes," [redacted] said. "He had over 50 needle marks in him because his veins kept busting. To watch that, it was absolutely the most terrifying, horrible experience I've had to go through as a mother, and I've got four kids. I don't want any other families to have to go through that."
has been fine since his recovery, but his mother became angry when, on Jan. 9, a Walter Reed doctor called her to say another child on her street had been diagnosed with infant botulism. At that point, she became convinced that the military was not committed to finding a cause.

Michael Archuleta, a Texas-based lawyer who is also a physician and is representing the Cook family, said he believes a pile of debris, about a block from the street where both families live, is the source of the toxin, and will file a negligence claim with the Army.

"We have two cases of infant botulism occurring in the same time frame, very close to one another, that is epidemiologically very improbable unless it came from an external or environmental source," he said.

A base spokeswoman confirmed that there was a debris pile and said it was removed and the site was covered with hay on Jan. 7.

The mother of the second child, who asked not to be identified when contacted by The Sun, said that her daughter is no longer sick and that she does not wish to join any potential lawsuit.

In interviews with both families, investigators have determined that the source was not food such as honey, which has proved to be a source of infant botulism.

Fort Meade and Army officials, as well as several leading independent epidemiologists and infectious disease experts, insist that testing soil in infant botulism cases would be fruitless because the bacterial spores that cause it are common and naturally occurring.

Dr. John Bartlett, a professor of medicine at the Johns Hopkins University who specializes in infectious diseases but is not involved in these cases, said that testing soil is "pointless."

"That kind of activity just doesn't pay off," he said. "You don't look for it in dirt, and even looking for it in a food source is going to be a long shot. I mean, two cases in the same geographic area are unusual, but I wouldn't know quite how to go about finding a source. Usually, we don't try because we don't find it."

Archuleta and the believe that DNA testing could establish an exact match between the two cases and the dirt pile or other soils, and they intend to use that evidence in any litigation.

The toxin is too ubiquitous, Petrucelli, the Army epidemiologist, said, and the DNA-testing process too inconclusive. That Fort Meade was built on a landfill and is currently monitored by the Environmental Protection Agency would not have any impact, because those sites focus on chemical agents and other toxic substances, not naturally occurring substances, he said.

Dr. James Campbell, a pediatric infectious disease specialist at the University of Maryland School of Medicine, who is not involved in the case, said unlike food-borne botulism, which generally infects adults and which investigators almost always link to a food source, there is often no identified source for the infant variety.
Top health & science headlines
- Texas governor orders anti-cancer shots
- Vexing infant botulism provokes threat of suit
- Panel issues blunt warning on climate change
- U.S. issues new guidelines to deal with flu pandemic
- All guts and no glory...

Top baltimoresun.com headlines
- Review of staff training minimal
- A warmer Md. will be wetter
- Wal-Mart to edge in on local grocers
- Suicide bomber kills 121 in Baghdad (12:19 PM)
- Vexing infant botulism provokes threat of suit

Most e-mailed in the past 24 hours
1. Sundown approaches for Sunny's 15 stores
2. Ravens raise season-ticket prices
3. A warmer Md. will be wetter
4. Wal-Mart to edge in on local grocers
5.18, 19 in horse race
• More most e-mailed
<table>
<thead>
<tr>
<th>News</th>
<th>Weather</th>
<th>Sports</th>
<th>On Your Side</th>
<th>Newslinks</th>
<th>Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add Your Event</td>
<td>District</td>
<td>Virginia</td>
<td>Maryland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily Horoscopes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polls</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lottery Results</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online Games</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choose To Save</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soccer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCAA Hoops</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boxing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCAA Football</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Today in Sports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tennis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto Racing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entertainment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Today in History</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weird News</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>eNews Alert</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ABC 7 News - Video On Demand

Baby Bo1
Friday Feb 02, 20C

Two babies in serious cases
Response To Missing Girls
Montgomery County residents are in shock after the discovery of two f
» click here to watch

Murder Mystery
A Maryland man was executed and left in the middle of the road in fro
» click here to watch

Student Raped At School
A 15-year-old student was raped at school and her family says the sch
» click here to watch
Organic Baby Food
A local mother who started out making baby food for her own children.
» click here to watch

Baby Botulism
Two babies have fallen ill with rare and serious cases of botulism at Fo
» click here to watch

Woman Fights Attacker
A local woman attacked by a masked man fights back.
» click here to watch

Cat Fight Eviction
A Virginia woman has been evicted after a cat fight with neighbors.
» click here to watch

Police Chase And Barricade
New details in a wild chase and standoff with D.C. Police.
» click here to watch

Super Bowl Ads
The ads are as big as the game itself.
» click here to watch

Hundreds Of Sick Students
Hundreds of students missed school due to illness.
» click here to watch
I think the statement, "live in the D.C. metropolitan area" and not the National Capitol Region, may limit the number of participants.

--- Original Message ---

From: [redacted] @us.army.mil
To: [redacted] @us.army.mil
Subject: Botulism UPDATE

FYI.

--- EXSUM ---

February 2, 2007

Botulism UPDATE

FGGM PAO had requests for information about the cases of infant botulism from media outlets including:

1. The Baltimore Sun
2. Fox 5, D.C. (query complete)
3. WJLA Channel 7, D.C. (a crew came to the Reece Road gate for a live shot around 1800)

BACKGROUND as I know it:
The [redacted] created another media day around the botulism situation on Fort Meade. Mr. [redacted] told his commander at DINFOS he feels it is his duty to expose the installation because he feels we are covering something up. Their concern is based on the fact the inspectors are not doing any environmental testing in his neighborhood. They have hired an environmental lawyer in Austin to sue the installation. And they are contacting the media to ensure their voices are heard. (Just so you know we did not know about the law suit before the interview. The reporter used it as one of the opening questions when they arrived back at the installation.)

The problem is this is wrong. We are not involved in a cover up of any kind. In fact the command has been very proactive about the whole thing.

So we are doing the best we can to counter their attacks by having the experts at United States Army Center for Health Promotion and Preventive Medicine (CHPPM) available for the reporters to talk to. Today the Baltimore Sun reporter Brad Olsen talked to [redacted] CHPPM via Phone. The reporter had questions for the installation as well.

Our basic message was that until the investigations are complete any comments on causes would be speculative. Ft. Meade continues to cooperate fully with US Army, Anne Arundel County, Maryland and Centers for Disease Control investigators. Col. McCreedy has been proactive in notifying the community and addressing their concerns.

When asked about the debris pile near the home we said; "Concrete construction debris was temporarily stored at the site in preparation for crushing and re-use on other projects. Crushing occurred on Oct. 31, Nov. 1-3 and Nov. 7. The crushed concrete was moved from the site and it used as road fill. The area in question was hydro-seeded on Jan 7 and hay was laid over the seed to allow it to germinate.

[redacted] went on camera this afternoon on channel 7 WJLA in Washington (ABC). She stuck to the same messages we had put out before. The Clostridium botulinum bacteria is a naturally occurring bacteria that is found anywhere in the environment. Therefore we don’t plan to do any soil sampling or air quality sampling because it exists everywhere in Maryland. We don’t have any answers right now because the investigation is not complete. But we are working together with Anne Arundel County, Maryland and Centers for Disease Control investigators. She also emphasis that very likely we would not ever be able to point to an exact cause.

The first newscast at 6:00 was very short. It basically said the [redacted] were suing the Army. They did not use any of the footage from [redacted]. They filmed an intro around 7pm and said the real story would be on the 10:00 news tonight.

We will continue to monitor the situation and send reports up as we have them.

Melanie

Fort Meade, MD 20755
Sirs,

I've checked with both the Center for Health Promotion and Preventive Medicine SJA and the U.S. Army Medical Command SJA (via the public affairs supervisor at MEDCOM HQ); their advice regarding public comment on our investigation into the cases of infant botulism is consistent: we should not respond to media/public inquiries given what the Fort Meade installation PAO has told us--that one of the Fort Meade families has decided to litigate. The MEDCOM advice is specifically that we refrain from speaking on "any issue related to the botulism cases and the ongoing investigation into how the children contracted the disease."

The advice is not inconsistent with my experience at other commands; on the basis of it, I've declined an interview request from the installation paper, and will decline further requests for interviews from commercial media as advised.

V/R,

U.S. Army Center for Health Promotion & Preventive Medicine

USACHPPM: Saving Lives & Resources--Prevention is the Key.
From: [Redacted]
Sent: Thursday, February 08, 2007 1:40 PM
To: [Redacted]
Cc: [Redacted], COL KACC-Ft Meade; LTC KACC-Ft Meade; LTCCHPPM; LTCCCHPPM-Wash DC; Ms USACHPPM; Mr USACHPPM; Moore, Melanie CIV USA; @us.army.mil; USACHPPM-EOC
Subject: Ft Meade EPICON update (UNCLASSIFIED)
Importance: High

Dear [Redacted],

As promised, here is what will likely be the last weekly update re the EPICON team. I’ve tried to draft it in a way that your public affairs staff could use in updating the residents of Fort Meade:

[We] Epidemiologists from the Army Center for Health Promotion and Preventive Medicine advised the Preventive Medicine Staff of the Walter Reed Health Care System and the Kimbrough Ambulatory Care Center to adopt strategies to ensure increased vigilance in diagnosing infant botulism. Two infants residing on Fort Meade were diagnosed and treated for the disease at Walter Reed Army Medical Center. The first case of infant botulism was diagnosed in October 2006 and the second in December 2006. Two infants who live on Oliver Court, [Redacted],... 

The Epidemiological Consultation team has completed its assessment and is planning to deliver a written report for the Fort Meade garrison commander in about three weeks. The team will work closely with the Army Medical Surveillance Activity to monitor incidence of cases within DOD.

COL McCready, your staff may wish to approach the Maryland Department of Health and Mental Hygiene to see if they would be willing to include this information about their efforts—it should be attributed to DHMH rather than CHPPM:

"The Maryland Department of Health and Mental Hygiene and the U.S. Centers for Disease Control and Prevention’s laboratory specializing in botulism are considering special testing to determine specific bacterial subtypes using samples from the two infants. While subtyping would not help to predict or prevent future cases, it could contribute to a general scientific understanding of the bacteria."

Since the assessment itself is complete and we’re underway with the report itself, we do not plan to continue sending weekly updates. However, if there’s anything else we can provide, please don’t hesitate to contact me/us.

[Redacted]
Ph: [Redacted]
Sir,

You probably saw this. Am sharing with others as appropriate, since TSG should have seen by now. Mainly a way to summarize.

VR
SUBJECT: Infant botulism cases at Ft. Meade

1. Purpose. To provide information on infant botulism at Ft. Meade, MD

2. Facts.

   a. Two infants living on the same street approximately 400 feet apart, at Ft. Meade contracted infant botulism in Oct 06 and Jan 07, respectively. Subsequent investigation did not reveal a common source. A local newspaper reported that one of the families plans to sue the Army, claiming that they were negligent in seeking the cause of the two cases. They reportedly believe that dirt from a construction site one block away from the street where both families live is the source of the spores, that soil testing should have been undertaken, and that the Army is intentionally avoiding such sampling because Ft. Meade is a Superfund site. The fact that Clostridium spores are everywhere in soil and dust, makes isolating any one putative source impossible, and experts agree that testing the soil in infant botulism cases is fruitless.

   b. Infant botulism, also known as intestinal botulism, is a rare but serious paralytic illness caused by a nerve toxin produced by a spore-forming bacterium, Clostridium botulinum. Clostridium spores are ubiquitous worldwide, in soil and dust; most cases of intestinal botulism are likely to derive from ingestion of spores from common, airborne dust. After spores are ingested, they germinate in the intestines and produce bacteria which manufacture and release botulinum toxin. Intestinal botulism typically affects children younger than a year and rarely affects adults, because most adults and older children have natural defenses that prevent growth of the bacteria and elaboration of toxin. Other than avoiding feeding infants honey and corn syrup which are well known to present a risk of having spores, there is no known way to prevent the disease. Each year in the US, two cases are reported for about every 100,000 live births; this translates to about 5 cases per month throughout the country.

   c. The MEDDAC Commander at Ft. Meade requested assistance to investigate, and USACHPPM formed an Epidemiologic Consultation (EPICON) Team, which also consulted subject matter experts from the Centers for Disease Control and Prevention (CDC), the California Department of Health Services (CDHS), the Maryland Department of Health and Mental Hygiene, and the Anne Arundel County Health Departments. CDHS was consulted because of their nationally renowned expertise in infant botulism. The Team interviewed the affected infants' parents using the CDC's infant botulism questionnaire, modified for military beneficiaries. Stool specimens had been collected by local physicians and tested by the Maryland Department of Health and Mental Hygiene, and offered to the CDC for sub-typing. Investigators and Ft. Meade officials conducted town hall meetings to address community concerns and provided information sheets to local residents. Investigators also provided press releases and conducted media interviews.
revealed no common exposures that may have been a likely source of the outbreak, and no possible food sources. The risk communication effort was intensified due to the high level of community concern regarding transmission and environmental factors discussed in the interviews, such as nearby construction. This quelled the fears of most Ft. Meade residents; however, some still wonder why environmental sampling and testing is not being done.

e. The Maryland Department of Health and Mental Hygiene is requesting determination of specific bacterial sub-types from the CDC. The CDHS is considering a research project that would attempt to isolate \textit{C. botulinum} from soil or house dust samples that could be obtained from Ft. Meade. However, any results that may derive from the laboratory work of either the CDC or the CDHS in regard to this two-case cluster would contribute nothing toward identifying the source, predicting the emergence of additional cases, or mitigating future infections. In fact there are no known, specific, public health interventions to prevent non-foodborne, infant (intestinal) botulism because \textit{C. botulinum}—when isolated from environmental samples—are traceable to multiple locations and not limited to any narrowly identified source. Instead, any Ft. Meade-associated research activities would occur strictly to advance the body of scientific knowledge about these bacteria and their ecology in Maryland.

f. EPICON Team recommendations include: (1) Military Health System providers throughout the National Capital Region (NCR) be made aware of the two cases, to reinforce the need to consider botulism in the differential when evaluating infants with paralytic signs or significant constipation; (2) NCR clinic staff receive a message reinforcing the need to communicate reportable medical events to both civilian and military public health authorities; (3) NCR beneficiaries who are parents of newborns and infants be informed about intestinal botulism as part of child health education; (4) Army epidemiologists enhance surveillance for botulism cases.
Just to let you know that this cam through the MEDCOM channels and if you did not see it, the Botulism information is contained here. I did make certain the COL Horoho had the information when I had my telephone VTC with her last week.

-----Original Message-----
From: COL MEDCOM HQ
Sent: Tuesday, February 06, 2007 12:14 PM
To: LTC MAMC; LTC LAC; LTC IACH; COL DCHS KACH - West Point; COL BAMC-Ft Sam Houston TX; COL MAHC; COL WBAMC; COL IRACH-Ft Knox; COL WACH; COL 121 Combat Support Hospital; COL USAAMC; COL WAMC-Ft Bragg; COL CRDAMC-Ft Hood; COL EAMC; LTC RAHC-Ft Myer; COL USAH; COL MEDDAC-AK; LTC LND; COL MCAHC Ft. Eustis; COL IACH; LTC KACH - West Point; COL WRAMC-Wash DC; COL KACC-Ft Meade; COL EAMC; COL RACH-FtSill; COL BMACH; COL WRAMC-Wash DC
Cc: LTC MEDCOM HQ; LTC MEDCOM HQ; LTC MEDCOM HQ; LTC MEDCOM HQ; LTC MEDCOM HQ; LTC MEDCOM HQ; LTC MEDCOM HQ; LTC MEDCOM HQ; LTC MEDCOM HQ; LTC MEDCOM HQ; LTC MEDCOM HQ; LTC MEDCOM HQ; LTC MEDCOM HQ; LTC MEDCOM HQ; LTC MEDCOM HQ; LTC MEDCOM HQ; COL MEDCOM HQ; SGM MEDCOM HQ; Ms CTR-PEC Solutions MEDCOM HQ; COL MEDCOM HQ; COL MEDCOM HQ; COL MEDCOM HQ; COL MEDCOM HQ; COL MEDCOM HQ; COL MEDCOM HQ; Ms MEDCOM HQ; Dr MEDCOM HQ; CIV USA/MEDCOM/ERMC; Ms CTR-TERRA-Health MEDCOM HQ; LTC MEDCOM HQ
Subject: FW: AMEDD Daily News Summaries, 5 Feb 2007 (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

FYI and sharing.
The Colorado Independent Newsweekly reports that top Army commanders received applause and criticism as the Pentagon's Task Force on Mental Health swept through Fort Carson, amid lingering questions about whether returning combat troops get the psychological care they need. Army Surgeon General Kevin Kiley and Maj. Gen. Robert Mixon acknowledged last week to media that commanders should be better trained to identify mental-health problems.

According to one Washington, D.C.-based advocacy group, that's an important step. Kiley was at Fort Carson as part of a military-wide study to recommend improvements to military mental-health services, particularly for troops with post-traumatic stress disorder, or...
PTSD. (We have learned some lessons)

The San Antonio Express News reports on local concerns that the pace of BRAC spending will negatively impact the area. San Antonio is slated to get $2 billion in new construction and a net gain of 3,000 medical-related jobs from the Pentagon's 2005 Defense Base Realignment and Closure Commission recommendations. Yet local leaders worry that the federal government might not spend the money needed to meet the BRAC goals—a decision that could delay work for local construction contractors, engineers and architects. (Pace of BRAC)

The Baltimore Sun continues its reporting on the children's botulism cases at Fort Meade. While both children survived the illness, one family has hired a lawyer who will likely sue the Army, claiming that military officials have been negligent in seeking the cause of the outbreak. The parents of the other child say they do not blame the military and do not plan to join a lawsuit. "I would be hesitant to reassure everyone by saying this is a freak thing and this is over," said Col. Bruno Petruccelli, a physician and director of epidemiology and disease surveillance at the U.S. Army Center for Health Promotion and Preventive Medicine in Aberdeen. "Maybe there will be a third case and a fourth case. We can't say there won't be another one." (Suit Possible)

Stars & Stripes reports that while more than 37,000 patients from the wars in Iraq and Afghanistan have been treated at Landstuhl RMC, only about 20 percent of those were seen for combat-related wounds, officials say. Troops and civilians from the combat zones, including Americans and patients from 41 other nations, have sought treatment at the U.S. Army hospital for ailments including heart problems, back injuries, kidney stones, respiratory illnesses, gynecological issues and dermatological complications, officials said. "When you've got more than 140,000 people in any one place, you have to expect diseases and injuries that have to be evaluated and treated," said Dr. Randolph Modlin, an Army colonel and chief of cardiology at Landstuhl. (Noncombat Injuries)

KING 5 TV News (Seattle, Wash) picked up an Associate Press news summary on a former civilian employee at Madigan Army Medical Center charged Friday in U.S. District Court in Tacoma with theft of honest services and accusing a bribe to aid in the commission of a fraud on the United States. 43-year-old Luis Cruz was employed as a tool and parts attendant at the U.S. Army's Madigan Medical Center. He was fired in April 2005 for drug use. After Cruz's dismissal, an investigation revealed that Cruz had been using his government-issued credit card to pay for services never ordered or received by the military. According to charging papers, Cruz and a co-conspirator who processed the charges pocketed more than $50,000 in cash for which they had falsely billed the government. (Belvoir Boy Gets His Wish)

Independentmail (Anderson, S. Carolina) reports on the story behind the more than 8,000 so-called "comfort quilts" hand-made to patients at Walter Reed Army Medical Center. What began as a humble way to keep warm in harsh mountain winters has become a comfort to members of the United States military who are recovering from war. About 50 of the colorful patchwork representations of a grateful nation arrive at the center each week. Each one is carefully opened, befitting the care with which it was made and shipped, by Chaplain John L. Kallerson, an Army major who believes each is a blessing. (Crafting Comfort)

KNEWS.com resurfaces the story of former Army Captain Jullian Philip Goodrum and his battles with the Army and PTSD. Goodrum was quoted in a United Press International article about appalling conditions at Fort Knox, Ky., for the soldiers in "medical hold" there. That article sparked congressional investigations of the treatment of injured
soldiers at two bases. In his interview with the television reporter, Goodrum is quoted as saying, "Per G.I. Joe, 'knowing is half the battle,' he said. "Obtain medical knowledge and become familiar with symptoms of PTSD. Seek out qualified medical providers for medical support or readjustment support in your area that specializes in PTSD. PTSD is a risk of injury during service in a combat theater of operations. Have in place a course of action to implement if you begin to experience symptoms of PTSD or (have) readjustment concerns." And, he's sad to say, don't depend on the military to take care of it. Goodrum is full of stories of military personnel who tried - and failed - to get mental-health services through the Army. (A Continuing Battle)
Vexing Infant Botulism Provokes Threat Of Suit

By Bradley Olson, Sun Reporter

It's one of the rarest infectious diseases, affecting an average of only 100 babies a year in the United States, but infant botulism infected two babies living on the same street at Fort Meade in recent months - puzzling researchers.

Clusters of the illness are not unprecedented, experts say, and the ubiquity of the bacterial spores that cause infant botulism makes isolating one source almost impossible.

That is especially true in this case, where the military base also happens to be an Environmental Protection Agency Superfund site.

Both children survived the illness, but one family confirmed yesterday that it has hired a lawyer who will likely sue the Army, claiming that military officials have been negligent in seeking the cause of the outbreak. The parents of the other child say they do not blame the military and do not plan to join a lawsuit.

On Thursday, base officials confirmed that both cases, the first diagnosed in October and the second in December, came from the same strain of Clostridium botulinum bacteria.

"I would be hesitant to reassure everyone by saying this is a freak thing and this is over," said Col. Bruno Petruccelli, a physician and director of epidemiology and disease surveillance at the U.S. Army Center for Health Promotion and Preventive Medicine in Aberdeen. "Maybe there will be a third case and a fourth case. We can't say there won't be another one."

Army doctors involved in the investigation say they have followed medical protocol, conducting an investigation with help from experts at the Centers for Disease Control and Prevention in Atlanta, Walter Reed Army Medical Center, Maryland Public Health Administration and Anne Arundel County Department of Public Health.

Infant botulism develops in newborns - usually those between 3 weeks and 6 months of age - when they ingest bacteria that produce a toxin inside the large intestine. The toxin attaches to nerves in the body and paralyzes them. Although the condition is treatable and most babies eventually recover, it causes several frightening symptoms, including paralysis and respiratory problems.

Such was the case with whose family lives on the Anne Arundel County military base.

On Oct. 2, noted that the baby became fussy and was not feeding well. Thinking he was teething, she put him to bed. The next morning, he made an odd, grunting sound, and when she picked him up, his head flopped.
She took him to Bethesda Naval Hospital, where doctors, thinking he was dehydrated, gave him fluids intravenously. When his eyes began to gloss over, she recalled, she was rushed to Walter Reed Army Hospital, where a young physician noticed symptoms of infant botulism she had seen in a case during her residency.

She went home to research the condition and in the meantime, doctors tested him for meningitis. When that came back negative, they sent him to get a CT scan to rule out a neurological disorder. During the scan, Jonathan's vital signs plunged, and a gaggle of doctors and nurses rushed into the room, reviving him and putting him on oxygen.

Once infant botulism was definitively diagnosed, they treated him with a drug called "Baby-BIG," which slightly relieves symptoms and doesn't allow the toxin to paralyze any other nerves.

"My son was so sick, he couldn't even open his eyes," she said. "He had over 50 needle marks in him because his veins kept busting. To watch that, it was absolutely the most terrifying, horrible experience I've had to go through as a mother, and I've got four kids. I don't want any other families to have to go through that."

Jonathan has been fine since his recovery, but his mother became angry when, on Jan. 9, a Walter Reed doctor called her to say another child on her street had been diagnosed with infant botulism. At that point, she became convinced that the military was not committed to finding a cause.

Michael Archuleta, a Texas-based lawyer who is also a physician and is representing the family, said he believes a pile of debris, about a block from the street where both families live, is the source of the toxin, and will file a negligence claim with the Army.

"We have two cases of infant botulism occurring in the same time frame, very close to one another, that is epidemiologically very improbable unless it came from an external or environmental source," he said.

A base spokeswoman confirmed that there was a debris pile and said it was removed and the site was covered with hay on Jan. 7.

The mother of the second child, who asked not to be identified when contacted by The Sun, said that her daughter is no longer sick and that she does not wish to join any potential lawsuit.

In interviews with both families, investigators have determined that the source was not food such as honey, which has proved to be a source of infant botulism.

Fort Meade and Army officials, as well as several leading independent epidemiologists and infectious disease experts, insist that testing soil in infant botulism cases would be fruitless because the bacterial spores that cause it are common and naturally occurring.

Dr. John Bartlett, a professor of medicine at the Johns Hopkins University who specializes in infectious diseases but is not involved in these cases, said that testing soil is "pointless."
"That kind of activity just doesn't pay off," he said. "You don't look for it in dirt, and even looking for it in a food source is going to be a long shot. I mean, two cases in the same geographic area are unusual, but I wouldn't know quite how to go about finding a source. Usually, we don't try because we don't find it."

Archuleta and the believe that DNA testing could establish an exact match between the two cases and the dirt pile or other soils, and they intend to use that evidence in any litigation.

The toxin is too ubiquitous, Petrucelli, the Army epidemiologist, said, and the DNA-testing process too inconclusive. That Fort Meade was built on a landfill and is currently monitored by the Environmental Protection Agency would not have any impact, because those sites focus on chemical agents and other toxic substances, not naturally occurring substances, he said.

Dr. James Campbell, a pediatric infectious disease specialist at the University of Maryland School of Medicine, who is not involved in the case, said unlike food-borne botulism, which generally infects adults and which investigators' almost always link to a food source, there is often no identified source for the infant variety.
Ma'am,

Just received from...
Respectfully Submitted. Hard copy will be mailed to [redacted] on Monday. I apologize for delaying this electronic delivery today. Scanned copy was ready for me to send earlier in the day but on final read-through I found a few formatting glitches (outline numbering, spacing, pagination). I did not want to wait any longer for type / re-scan, so am passing this on as we head into the weekend. At first I included [redacted] in distro but I hesitated as CHPPM's got its name stamped on a less-than-perfect tech report. We'll make the corrections for hard copy.

After you and the Garrison Cdr have had a chance to read it, I would request your clearance to share with our colleagues at Maryland and Anne Arundel health depts.

Thank you for consulting us during these difficult circumstances, and we remain prepared to continue assisting in any way we can.

VR,

[redacted], Medical Corps, US Army

USACHPPM, ATTN: MCHB-TC-D
5158 Blackhawk Road, Aberdeen Proving Ground, MD 21010-5403 Office [redacted] or [redacted]@us.army.mil

Classification: UNCLASSIFIED
Caveats: NONE
1. REFERENCES. Appendix A contains the references used in this report.

2. PURPOSE. The purpose of this epidemiological consultation (EPICON) was to investigate a cluster of *Clostridium botulinum* (*C. botulinum*) in infants at Fort Meade, Maryland.

3. AUTHORITY. The U.S. Army Medical Department Activity (MEDDAC) Commander at Fort Meade requested assistance from the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) after two infants living on the same street, approximately 116 meters apart, contracted intestinal botulism in October 2006 and December 2006, respectively. In response to this request, the USACHPPM formed an EPICON team to perform an investigation.

4. BACKGROUND.

   a. *Clostridium botulinum* is an anaerobic spore-forming, rod-shaped bacterium that produces botulinum neurotoxin, the causative agent of botulism (reference 1). *C. botulinum* is known to produce seven distinct toxins including A, B, C1, D, E, F, and G. Release of these toxins at presynaptic nerve terminals causes paralysis (reference 2).

   b. Specific toxin types of *C. botulinum* are usually associated with specific geographic regions within the United States (U.S.). While both type A and B cases are seen in the western U.S., type A predominates west of the Rocky Mountains (reference 3). Type B has been isolated more frequently in cases in the Eastern U.S., specifically Pennsylvania and New York. Toxin types C, D, and F are less defined to a specific region, but are typically isolated from animals rather than humans, and all three of these types are poorly absorbed by the human intestine, which is essential for inducing neurological symptoms associated with botulism. Fresh water and fish ingestion have been associated with outbreaks of botulism type E. These outbreaks have historically been limited to the Baltic, Alaskan, and the Great Lakes areas (reference 3).

   c. There are three major types of botulism found in humans: foodborne, wound, and gastrointestinal colonization (otherwise known as infant) botulism.

Use of trademarked name(s) does not imply endorsement by the U.S. Army but is intended only to assist in identification of a specific product.
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Paragraph</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. REFERENCES</td>
</tr>
<tr>
<td>2. PURPOSE</td>
</tr>
<tr>
<td>3. AUTHORITY</td>
</tr>
<tr>
<td>4. BACKGROUND</td>
</tr>
<tr>
<td>5. METHODS</td>
</tr>
<tr>
<td>6. FINDINGS/RESULTS</td>
</tr>
<tr>
<td>7. DISCUSSION/CONCLUSIONS</td>
</tr>
<tr>
<td>8. LIMITATIONS</td>
</tr>
<tr>
<td>9. RECOMMENDATIONS</td>
</tr>
<tr>
<td>10. POINT OF CONTACT</td>
</tr>
</tbody>
</table>

Appendices

| A. REFERENCES | A-1 |
| B. CLOSTRIDIUM BOTULINUM QUESTIONNAIRE USED FOR INVESTIGATION | B-1 |
| C. RISK COMMUNICATION PRODUCTS AND MEDIA RELEASES FOR CLOSTRIDIUM BOTULINUM INVESTIGATION | C-1 |
| D. ARMED FORCES INSTITUTE OF PATHOLOGY (AFIP) PROPOSAL TO FUND DEVELOPMENT OF A DEPENDENT MORTALITY BASE | D-1 |
5. RECOMMENDATIONS. The EPICON team recommends that—

a. Military Health System providers throughout the National Capital Region (NCR) be made aware of the two cases at Fort Meade in order to reinforce the need to seriously consider botulism in the differential diagnosis when evaluating infants with paralytic signs or significant constipation and when Sudden Infant Death Syndrome cases are encountered.

b. Army epidemiologists enhance surveillance for botulism cases.

c. The NCR clinic staff receive a message reinforcing the need to communicate reportable medical events to both civilian and military public health authorities.

d. The NCR beneficiaries who are parents of newborns and infants be informed about intestinal botulism as part of child health education.

e. Risk communication efforts continue on a scaled-down basis, that media coverage continues to be monitored, and that the installation remains ready to respond to community rumors, misunderstandings and misperceptions in a timely manner.
4. CONCLUSIONS.

a. Interviews with each family revealed no common exposures that may have been a likely source of the outbreak, and no possible food sources. The risk communication effort was intensified due to the high level of community concern regarding transmission and environmental factors discussed in the interviews, such as nearby construction. This quelled the fears of most Fort Meade residents; however, a local newspaper reported that the parents of one of the affected infants plans to sue the Army, claiming there was negligence in seeking the cause of the two cases. They reportedly believe that dirt from a construction site one block away from the street where both families live is the source of the spores, that soil testing should have been undertaken, and that the Army is intentionally avoiding such sampling because Fort Meade is a Superfund site.

b. Proving or disproving a link with the environment is a dubious task given the lack of previous research in the area. It is widely believed that botulism type B is endemic to the soil in the area and over the entire east coast of the U.S. Numerous discussions were held with leading C. botulinum experts, CDC representatives, and Maryland and Anne Arundel County public health officials about proceeding with environmental testing. The consensus of this group was that environmental testing would not prove or disprove a link between the cases and the environment. In addition, there are no known public health prevention strategies for non-foodborne C. botulinum. Despite not testing the environment for possible connections, research was performed regarding prior land use. The Agency for Toxic Substances and Disease Registry does list Fort Meade on the National Priorities List, but their report indicates that the waste sites are far from the current location of the cases. Moreover, while prior dumping sites for waste and dead carcasses are theorized to be a viable source for C. botulinum, there has been no evidence to support this.

c. After review of all the research and data, it is clear that there are numerous modes of ingestion of C. botulinum by infants that are not well described in the literature. At the present time, the EPICON team cannot find a link between the two cases at Fort Meade. Moreover, each of the infections was probably due to a number of factors including limited normal bacteria flora growth in the intestine and may in fact include some cofactor or another infection that increases the susceptibility of an infant. Much needs to be learned about the epidemiology of infant botulism and this EPICON team reached out to the leading scientists in this field. Collaborations were offered for both environmental and laboratory researchers to provide isolates and samples to aid long-term research projects that will better elucidate the etiology of C. botulinum. However, it is important to state that EPICON team members do not feel these results will assist in the current investigation or provide immediate public health interventions for the Fort Meade population.
ACKNOWLEDGEMENTS

USACHPPM would like to express our appreciation for the information and support provided to us by the following people and organizations:

- LMI
- DEDS, USACHPPM
- Medical Surveillance Activity
- Department of Preventive Medicine, Kimbrough Ambulatory Care Center, Fort Meade, Maryland
- Dr. Kelly Russo, Ann Arundel County Public Health Department
- Dr. David Blythe, Maryland Department of Health and Mental Hygiene
- Dr. Julie Kiehlauch, Maryland Department of Health and Mental Hygiene Microbiology Laboratory
- Dr. Susan Maslanka, Centers for Disease Control and Prevention (CDC) Atlanta, Georgia
- Dr. Steven Arnon, California Department of Health Services
- CPT Infectious Disease Fellow Walter Reed Army Medical Center
- Ms. USACHPPM Risk Communication Program
- USACHPPM Public Affairs Officer
- Fort Meade Public Affairs Officer
EXECUTIVE SUMMARY
EPIDEMIOLOGICAL CONSULTATION NO. 13-HG-06TU-07
INVESTIGATION OF A CLUSTER OF CLOSTRIDIUM BOTULINUM IN INFANTS AT FORT MEADE, MARYLAND JANUARY 2007

1. PURPOSE. The purpose of this epidemiological consultation (EPICON) was to investigate a cluster of Clostridium botulinum (C. botulinum) in infants at Fort Meade, Maryland. The U.S. Army Medical Department Activity Commander at Fort Meade requested assistance from the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) after two infants living on the same street, approximately 116 meters apart, contracted intestinal botulism in October 2006 and December 2006, respectively.

2. BACKGROUND. Intestinal botulism, also known as infant botulism, is a rare but serious paralytic illness that can occur in children under 1 year of age. It is caused by a nerve toxin produced by C. botulinum bacteria, the spores of which are ubiquitous worldwide in soil and dust. Most cases of infant botulism are probably caused by ingestion of spores from common, airborne dust. After spores are ingested, they germinate in the intestines and produce bacteria which manufacture and release botulinum toxin. Stool specimens collected from both of the Fort Meade infants tested positive for C. botulinum toxin type B, which is prevalent in the Eastern United States (U.S.).

3. METHODS. The USACHPPM formed an EPICON team for this investigation. The team consulted subject matter experts from the Centers for Disease Control and Prevention (CDC), the California Department of Health Services (CDHS), the Maryland Department of Health and Mental Hygiene (DHMH), and the Anne Arundel County Department of Health. The CDHS was consulted because of their nationally renowned expertise in infant botulism. The team interviewed the affected infants’ parents using the CDC’s infant botulism questionnaire, modified for military beneficiaries. Stool specimens had been collected by local physicians and tested by the Maryland DHMH. Clostridium botulinum has been isolated from both samples and isolates will be sent to the CDC for subtyping. The EPICON personnel conducted town hall meetings with the Fort Meade Garrison Commander to address community concerns. Investigators also provided information sheets to local residents, provided press releases, and conducted media interviews.

Readiness thru Health
MEMORANDUM FOR Commander, Fort George G. Meade, Building 4550 Parade Field Lane, Fort Meade, MD 20755

SUBJECT: Epidemiological Consultation No. 13-HG-06TU-07, Investigation of a Cluster of Clostridium Botulinum in Infants at Fort Meade, Maryland, January 2007

1. We are enclosing a copy of the subject report with an Executive Summary.

2. Direct inquiries regarding this report to [Redacted], Directorate of Epidemiology and Disease Surveillance, at commercial email or email to [Redacted]@us.army.mil.

FOR THE COMMANDER:

Encl

COL, MC
Director, Epidemiology and Disease Surveillance

CF: (w/encl)
<Editor’s Note: Add whatever copies furnished you deem necessary.>
Foodborne botulism is typically caused by ingesting preformed toxin from improperly preserved food items. Wound botulism, similar to other wound infections, is caused by the bacteria embedding under subcutaneous skin or deep inside an open area on the body, where they then produce the toxin. Intestinal botulism, which was first reported in 1976 (reference 4), occurs almost exclusively in infants, with the range of affected ages being 1 to 63 weeks. The majority of all cases occur in infants under 6 months of age, with the average age of reported cases being 13 weeks (reference 5). Cases are thought to be caused by ingestion of *Clostridium botulinum* spores that subsequently colonize the large intestine and produce botulinum neurotoxin (references 4 and 6).

While *C. botulinum* cases occur throughout the world, the diagnosis of infant botulism is relatively uncommon in less developed countries (reference 7). There are numerous reasons for this trend, but perhaps the biggest is the amount of resources and testing required for a definitive diagnosis of infant botulism. *Clostridium botulinum* in infants is the most commonly diagnosed type of botulinum intoxication in the U.S. (reference 6); despite this, less than 2 infant botulism cases occur annually for every 100,000 live U.S. births (references 8 through 13). The case fatality rate for infant botulism in the U.S. is about 1.3 percent and less than 1 percent for hospitalized infants (reference 8). However, studies suggest that some cases of Sudden Infant Death Syndrome (SIDS), which affects more than 4,500 infants in the U.S. each year or approximately 50 infants per 100,000 live births, may be due to infant botulism (reference 9). Although the actual rate of fatal botulism falsely attributed to SIDS is unknown, studies analyzing infants who died from SIDS in the U.S. found botulism bacteria or toxin in up to 5 percent of examined SIDS cases (references 8, 9, 10, and 13). Some European studies have found higher rates (references 11 and 12).

d. Since infants cannot communicate symptoms, parental and provider awareness are keys to early diagnosis and treatment. Signs of infant botulism include: constipation, weakness (affecting gag, cry, sucking and swallow functioning), flaccid paralysis or "floppy baby syndrome," poor feeding, lethargy and hypotonia (reference 6). Prompt laboratory diagnosis is necessary to rule out other degenerative neuromuscular diseases. A test for toxin in the infant's stool specimen is conducted to identify and type the toxin. A confirmatory test is conducted by culturing the fecal specimen to isolate *C. botulinum*. However, typical infant botulism laboratory analysis stops at this step. Laboratory subtyping from clinical isolates are not usually done and are part of broader research in the few laboratories equipped to do such testing.

e. Historically, there has not been a treatment protocol for infant botulism with the exception of treating specific symptoms. However, in 2003, the Food and Drug Administration approved Botulism Immune Globulin Intravenous (Human) (BabyBIG) for treatment of infant botulism cases with toxin A or B. This treatment consists of botulism antitoxin antibodies that are derived from humans (reference 14).
f. Commonly known vectors such as honey or syrup have been shown to be the source of several infant botulism cases. However, these risk factors can only be demonstrated in 10 percent of all infant botulism cases (reference 15). Recent research suggests that the toxin forming agent spores may be introduced by ingesting environmental materials such as dust or soil. Given *C. botulinum* is ubiquitous in soils around the world, ingested dust and soil are thought to be likely culprits of infant botulism (reference 15).

g. In late 2006, two cases of infant botulism type B were identified among Department of Defense (DOD) beneficiaries hospitalized at the Walter Reed Army Medical Center (WRAMC). The cases occurred approximately 3 months apart and the infants involved lived in the same residential area in Fort Meade, Maryland, approximately 116 meters apart. The proximity of the cases increased community concern and sparked the investigation summarized in this EPICON.

h. While the incidence of *C. botulinum* infection among infants is rare, it is not unprecedented to have clustering of cases. A review of literature reveals numerous infant botulism clusters that have been investigated (references 16 through 18). More recently, a new unpublished report indicated a cluster of infant botulism types A and B at Vandenberg Air Force Base in California. Like the cases presented in this report, there were two cases of confirmed infant botulism within 3 months of onset. Foodborne illness for both cases was ruled out. Thus, environmental concerns were investigated.

5. METHODS.

a. **EPICON Team.** Principal team members from the USACHPPM included two preventive medicine physicians, three epidemiologists (including one with environmental health expertise), and three risk communication specialists. This team worked with preventive medicine personnel at Fort Meade, medical epidemiologists from the Anne Arundel County Department of Health and the Maryland Department of Health and Mental Hygiene (DHMH), and public affairs professionals from these various organizations. The EPICON personnel and their civilian public health partners also conducted telephonic conferencing with a team of *C. botulinum* experts from the Centers for Disease Control and Prevention (CDC) and the California Department of Health Services (CDHS). Additionally, military medical and laboratory surveillance agencies for all service branches were consulted to identify and confirm additional cases. These agencies included the Army Medical Surveillance Activity (AMSA), the Navy Environmental Health Center (NEHC), and the Air Force Institute of Operational Health (AFIOH).

b. **Case Interviews.**

(1) A modified investigation form (appendix B) was developed using the CDC’s standard infant botulism form (*A Guide to Investigation of Infant Botulism, CDC 52.73 REV. 9-87*) and the New York City Department of Health’s investigation form. The form was designed to be
more specific for military families regarding factors such as residence, potential exposures in the military, and housing. Information collected included demographics, onset dates, clinical presentation, food history, travel history, and exposures to known or suspected botulism sources.

(2) A team of four conducted the interviews with the parents of each case. Questions were asked by one person to remove question bias from the interview. Questions were asked in the same order for each case, and responses were recorded by all four team members. Each interview lasted for approximately 1 hour. After the interviews, responses to each question were typed by one member of the team and reviewed by the other three members for accuracy. Afterwards, the entire EPICON team reviewed the responses for commonalities between the two cases and possible exposure links.

c. Surveillance.

(1) The AMSA’s Defense Medical Surveillance System (DMSS), its integrated Reportable Medical Events System (RMES), and the Military Health System Mart (M2) were queried to identify infant botulism diagnosed among active-duty military beneficiaries from calendar year (CY) 2002 through CY 2006. The inpatient queries were structured to identify any hospital admissions of infants under 1 year of age who were diagnosed with a primary or secondary diagnosis of infant botulism. Data from civilian facilities were only available if the claim was processed through TRICARE, the military health insurer. All data were consolidated into one case file which was then limited to unique cases. For each probable case identified through record review, AMSA, NEHC, and AFIOH were consulted to determine if the cases had confirmatory laboratory results. Because laboratory records are not readily accessible confirmation was only available for cases reported through the RMES reports. The Defense Enrollment Eligibility Reporting System (DEERS) was then queried to determine live births among DOD active-duty service members’ beneficiaries for CY 2003 through CY 2006.

(2) Based on the documented association between SIDS and infant botulism, the EPICON team also consulted with the Office of the Armed Forces Medical Examiner (OAFME), a component of the Armed Forces Institute of Pathology (AFIP); the Baltimore Medical Examiner’s Office; and the Maryland DHMH to gather information regarding fatalities classified as either SIDS or infant botulism.

d. Environmental Analysis. Sampling of environmental sources for C. botulinum type B was strongly considered by all parties involved in the investigation. After consulting with experts in the field, it was determined that environmental sampling would not add to this investigation and thus it was not conducted. However, collaboration with, and submission of environmental samples to, the Infant Botulism Treatment and Prevention Program in California was offered as part of long-term research and may occur in the future. In addition, a layout of the immediate construction sites and the case’s residence was developed using a measuring wheel for distances.
Distances were measured and marked for the residences, playground, football field, and possible construction site. Figure 1 shows this layout. Prior land use was also thoroughly researched for any possible botulinum contamination or biological use that may induce growth of \textit{C. botulinum}.

Figure 1. Layout of Possible \textit{C. Botulinum} Exposures and Cases' Residences

\textbf{e. Provider Education.} Military Health System (MHS) providers throughout the National Capital Region (NCR) were made aware of the two cases from Fort Meade as a means of reinforcing the need to seriously consider botulism when evaluating infants being seen because of paralytic signs or significant constipation, and when SIDS cases are encountered. Providers and clinic staff also received a reinforcing message about the need to communicate reportable medical events to both civilian and military public health authorities.

\textbf{f. Risk Communication.}
(1) From the beginning, Fort Meade's response focused on educating healthcare providers and the local community about the issue and on direct interaction with the affected families and other Fort Meade residents where the two affected infants lived. Kimbrough Ambulatory Care Center (KACC) notified all military healthcare providers in the NCR of the existence of the two cases and symptoms commonly associated with the disease. The Fort Meade Garrison Commander and KACC staff also immediately teamed up to personally visit both infants' families to identify unmet needs and to hand deliver risk communication products to the remaining residents. Risk communication products were also distributed to onpost child development centers, the media, and eventually to in-home childcare providers when that gap was identified. Risk communication products and media releases are in appendix C.

(2) Risk communication efforts regarding this issue incorporated several key risk communication principles—

(a) Discussing the bad news first and in a timely manner.

(b) Contacting the affected families and area residents in person.

(c) Identifying and using consistent spokespersons.

(d) Aligning response efforts with nonmilitary experts on infant botulism (that is, county and state health departments, the CDC, and the State of California where most infant botulism cases in the U.S. have occurred) to ensure that actions taken and/or proposed were scientifically valid.

6. FINDINGS/RESULTS.

a. Interviews and Clinical Case Summaries.

(1) Case 1.
However, there are numerous construction sites throughout the post, which the family may have passed by on occasion. Another construction site of possible exposure may be a “dirt pile” about 150 meters from the house or the playground which the father states he took the child to once prior to onset. The child stays at home with the mother and is not exposed to any childcare facilities outside of the home. The mother stated that she does dust and vacuum their house at least once per week. While both parents stated that no construction or gardening has been performed at the residence, both mentioned that sewage backup does occur during periods of ample rain.

(2) Case 2.
street, thus both are exposed to the same construction sites located elsewhere onpost. Case 2 has been exposed to the Child Development Center II (CDC II). No other children with similar illnesses have presented from this CDC II facility.

(c) Both families shop for groceries at the same locations. Feeding patterns are on the same schedule, but case 2 typically feeds with supplement, whereas case 1 feeds on breast milk. Case 2 does access the local children’s center (CDC II), while case 1 has never utilized the facility. The children did not share any other known commonalities such as people, churches, gathering centers, etc. All four parents of the children had different occupations and were at different localities for their respective positions.

b. Epidemiology.

(1) Fewer than 100 cases of laboratory-confirmed infant botulism have been identified each year within the U.S., which equates to a rate of about 2 cases per 100,000 live births (reference 19). Review of published public health reports revealed that a total of 16 laboratory-confirmed cases of infant botulism (primarily type B) were reported in the State of Maryland from 1976 through 1996 (reference 5). The Anne Arundel County Department of Health was consulted to identify additional cases reported in the state of Maryland since 1996; they had documented 30 laboratory-confirmed cases during this time frame, bringing the cumulative 30-year total to 46 cases. Case reports were sporadic, ranging from 0 to 6 cases reported per year.
The 2005 incidence rate was 6.7 cases per 100,000 live births (reference 20). Table 1 shows U.S., Maryland, and Anne Arundel County case reports from calendar years 2002 through 2006.

Table 1. Laboratory-Confirmed Infant Botulism Cases, CY 2002–CY 2006

<table>
<thead>
<tr>
<th>Case Reports</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>69</td>
<td>76</td>
<td>87</td>
<td>85</td>
<td>88</td>
</tr>
<tr>
<td>Maryland</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Ann Arundel County</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>


(2) Table 2 provides information regarding cases of infant botulism diagnosed among DOD active-duty beneficiaries from 2002 through 2006. During the 5 calendar years evaluated, approximately 85,000 to 105,000 live births were documented annually among DOD active-duty service members. Among this cohort, a total of 16 unique cases of infant botulism were identified during this period. Of the 16 cases identified, only 6 were laboratory-confirmed. A total of 2 probable cases were diagnosed in 2002, 3 occurred in 2003, 2 in 2004, 1 in 2005, and 8 in 2006, representing annual rates of 3.5 cases, 3 cases, 1 case, and 8.6 cases per 100,000 live births, respectively. Denominator data were not available for CY 2002 from M2 due to limitations with the M2 interface used to query the DEERS; therefore, rates could not be generated prior to CY2003. All cases were under 6 months of age, and there was not a male or female predominance. The majority (71 percent) of cases were from the west coast or the Great Plains region. These findings are consistent with the literature (references 1, 6, 16, and 22).

(3) In the process of reviewing case medical records, a similar clustering of cases as that observed at Fort Meade was detected in 2006 at Vandenberg Air Force Base in southern California. Two infants living in the same housing base were diagnosed within 3 months of each other, the first case being diagnosed in March 2006 and the second in May 2006. Case 1 was determined to be botulinum type B and the second was type A. Preventive medicine personnel questioned stated that the cases resided within 2 miles of each other. They were able to rule out the possibility of the cases being foodborne, but could not identify any epidemiologic links between the two cases. They consulted with the CDHS and concluded that the cases were probably acquired by ingestion of spores which occurred naturally in the environment, and noted nearby construction at a service station.

Table 2. Infant Botulism among DOD Active-Duty Beneficiaries, CY 2002–CY 2006

<table>
<thead>
<tr>
<th>Cases</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probable cases*</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Laboratory-confirmed cases</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>8</td>
</tr>
</tbody>
</table>

Total live births NA 85,531 101,522 104,356 92,551
<table>
<thead>
<tr>
<th>Age (months):</th>
<th>1</th>
<th>0</th>
<th>1</th>
<th>0</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Gender:</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Sponsor Service:</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Army</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Air Force</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Navy</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>State:</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Arizona</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>California</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Georgia</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Kansas</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Maryland</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>New York</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>North Carolina</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Utah</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Texas</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Washington</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Quarter hospitalized:</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>1st</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>3rd</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>4th</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

*Probable cases are cases with clinical presentation, lacking confirmatory laboratory tests; cases were identified through International Classification of Diseases, Ninth Revision (ICD-9) diagnosis codes entered into the patient's electronic medical record during hospitalization (reference 23).*

(4) Further review of public documents regarding infant mortality revealed that within the State of Maryland approximately 50 SIDS cases are reported each year while mortality due to infant botulism has not been documented in the state (reference 24). The Baltimore Medical Examiner's Office further stated that because SIDS is considered a cause of death, the Medical Examiner does not test victims for potential underlying causes such as infant botulism. Interviews with the OAFME revealed that the organization has no visibility on continental U.S. (CONUS) dependent fatalities due to DOD casualty operations policy.

c. Risk Communication. Because of the high level of community concern associated with this issue, risk communication efforts by Fort Meade and the investigators were critical in the overall response. Target audiences included the Fort Meade residential and childcare
communities because of their heightened concerns and local military and civilian healthcare providers to ensure increased vigilance.

(1) Risk communication efforts involved education through information sheets, weekly updates, links to nonmilitary resources, video/audio files of media interviews, personal outreach by the Fort Meade MEDDAC Commander and KACC, and town hall meetings to answer questions and discuss lingering concerns. Collaboration with nonmilitary experts likely assisted in addressing community concerns due to their neutrality about the proposed investigative approach. Media interest was intense and extended well beyond the local area.

(2) Several media interviews were conducted by the Fort Meade Garrison Commander, the EPICON team leader, and the KACC Chief of Preventive Medicine, to include those with NPR, The Baltimore Sun, and the Washington D.C. affiliates of ABC and CBS television networks. Given that public interest in the issue is less than it was initially, it would be easy to assume that concerns have been adequately addressed.

d. Laboratory Testing. Initial laboratory testing for both cases was performed by the Maryland DHMH Public Health Laboratory. Stool samples from both cases cultured positive for *C. botulinum*. In addition, a mouse bioassay was performed in which botulinum neurotoxin type B was detected. Genetic subtyping for each organism is currently pending with the CDC.

e. Mapping. Mapping of the area demonstrated that the residences of case 1 and case 2 were approximately 116 meters apart. Case 1 was slightly downhill of the playground, which in tum was slightly uphill of the dirt mound. The dirt mound was about 238 meters from case 1. Case 2 was much closer to this dirt mound (~150 meters) and was slightly uphill from it. (See figure 1).

f. Environmental Testing. Due to parental concern expressed to the media in reference to hazardous waste "Superfund" sites on Fort Meade, the EPICON team explored historical records regarding land use at Fort Meade. Fort Meade was listed on the Environmental Protection Agency's National Priorities List of hazardous waste sites on 22 July 1998 (reference 25). Due to this, the EPICON team researched the history of the site near residences where the cases occurred to identify any possible prior use, such as use for relocation/management of waste. The 1999 Agency for Toxic Substances and Disease Registry (ATSDR) public health assessment on Fort Meade (reference 25) and the 1989 U.S. Army Environmental Hygiene Agency's evaluation of solid waste management on Fort Meade (reference 26) listed numerous waste sites, including chemical containments and landfill sites (references 25 and 26). No waste sites were identified in the immediate area of residence for the cases.

7. DISCUSSION/CONCLUSIONS.

a. Investigation.
(1) The epidemiology of infant botulism is not well understood. Due to its rare occurrence and emerging etiologic understanding, numerous limitations are present when trying to prove or disprove links between cases. Although risk factors for infant botulism have been well studied, investigations are often inconclusive, and specific biological physiologies for developing infections are less well described. Spika et al identified several possible risk factors for infant botulism, including living in a rural area, breast-feeding infants over 2 months of age, less than one bowel movement per day for at least 2 months, and ingestion of corn syrup (references 1, 22, and 27). Other studies suggest hospitalized infant botulism cases tend to have higher birth weights and to be born to mothers that tend to be white, older and better educated (reference 5). Breast-feeding is more common in cases (references 17 and 28) and is associated with later onset in type B cases (reference 28). The rarity of infant botulism further complicates diagnosis, treatment, and prevention efforts for clinicians, microbiologists and epidemiologists.

(2) Upon initial review, there was concern that the two cases were linked in some way and that other infants in the community could be at risk. Thus, a thorough consultation was conducted to investigate all known risk factors for infant botulism. Both families shopped for groceries at the same commissary, as do most other families who live on Fort Meade. Still, foodborne agents were quickly ruled out due to the fact that the affected infants did not consume any food from a common source. In fact, case 1 was breast-fed almost exclusively, while case 2 was fed supplement. Known food risk factors such as honey and corn syrup were never used by either case. After ruling out common food agents, the investigation then looked for common exposures such as public gatherings, churches, day care facilities, and parents' occupational exposures. Each of the parents work in a different setting, and none of the four came into contact with each other during the course of their work. Furthermore, neither of the families shared the same church or public places. The families had no known contact with each other prior to onset of the cases. Thus, transmission is unlikely to have occurred in a child care setting or any other public location. In addition, the cases were three months apart and the families were not known associates, thus person-to-person transmission is highly unlikely, especially given that person-to-person transmission has never been documented.

(3) The investigation then turned to environmental exposures. Proving or disproving a link with the environment is a dubious task given the lack of previous research in the area. It is widely believed that botulism type B is endemic to the soil in the area and over the entire east coast of the U.S. Numerous discussions were held with leading C. botulinum experts, CDC representatives, and Maryland and Anne Arundel County public health officials about proceeding with environmental testing. The consensus of this group was that environmental testing would not prove or disprove a link between the cases and the environment. In addition, there are no known public health prevention strategies for non-foodborne C. botulinum. Reasons for this decision were: little is known about the diversity of the organism (that is, no library to compare with), the ability of laboratory methods to discriminate among C. botulinum subtypes
(reference 29) is limited; laboratory capacity is limited; and finally, due to the ubiquitous and dispersed nature of the organism, the probability of collecting the exact soil sample containing the causal agent is miniscule. It is interesting to note that one group of researchers in this field found an apparent "cluster" of C. Botulinum strains that were identified by Pulsed-Field Gel Electrophoresis (PFGE) approach as being more than 90 percent similar. However, the isolates were from different types of materials from two different continents and were collected over an extended period of time (reference 29). These results highlight the limitations to current laboratory methods in linking cases in a suspected cluster.

(4) Despite not testing the environment for possible connections, research was performed regarding prior land use. The ASTDR does list Fort Meade on the National Priorities List, but their report indicates that the waste sites are far from the current location of the cases. Moreover, while prior dumping sites for waste and dead carcasses are theorized to be viable sources for C. botulinum, there has been no evidence to support this.

(5) Several studies have indicated that C. botulinum is endemic to many, if not all, parts of the world and ultimately resides in the soil (references 1, 7, 15, 16, and 22). Current efforts are underway in California to develop a C. botulinum library of genetic material that may one day be utilized for PFGE or Amplified Fragment Length Polymorphism in matching human-linked strains of the organism with environmental samples. However, this library is not yet complete, thus genetic subtyping of the organism would not result in a confirmation of positive or negative results. Therefore, the only results of environmental testing would be to inform us that C. botulinum, if isolated, is present in the environment. Given the possible outcomes of environmental sampling, it was decided that there was no public health benefit. As Istre et al indicated, there are probably several environmental factors that aid in the ingestion of C. botulinum; however, until the technology and knowledge advances, we cannot determine what those factors may be (reference 16).

(6) After review of all the research and data, it is clear that there are numerous modes of ingestion of C. botulinum by infants that are not well described in the literature. At the present time, the EPICON team cannot find a link between the two cases at Fort Meade. Moreover, each of their infections was probably due to a number of factors including limited normal bacteria flora growth in the intestine and may in fact include some cofactor or another infection that increases the susceptibility of an infant. Much needs to be learned about the epidemiology of infant botulism, and the EPICON team reached out to the leading scientists in this field. Collaborations were offered for both environmental and laboratory researchers to provide isolates and samples to aid long-term research projects that will better elucidate the etiology of C. botulinum. However, it is important to state that EPICON team members do not feel these results will assist in the current investigation or provide immediate public health interventions for the Fort Meade population.
b. Risk Communication.

(1) According to the National Research Council, risk communication is defined as "an interactive process of exchange of information and opinion among individuals, groups, and institutions" (reference 30). The interactive element of risk communication, along with clear messages, is necessary in order for both experts and nonexperts to develop a mutual understanding of interests, values and concerns that go far beyond one-way information sharing.

(2) While treatable, infant botulism can cause significant anxiety and panic not only for the affected families but also within the local population because it—

(a) Afflicts only very young helpless children (typically less than 1-year-old).

(b) Occurs in an apparently random fashion without a means to predict or prevent exposure.

(c) Has no discernible cause due to its ubiquitous nature in the environment.

(d) Elicits dread and fear just by its very name, "botulism."

(3) When community concerns and media interest are high, risk communication efforts are critical in the overall response. Aggressive health information efforts (that is, fact sheets, press releases, etc.) are needed to increase awareness of the disease, its symptoms, and response actions. At the same time, technical knowledge is not always the dominant influence when concerns are high (and trust is low or unknown). Dialogue opportunities with experts and healthcare providers are important to answer questions and discuss lingering concerns.

8. LIMITATIONS.

a. The consultation is limited by several factors. The first is that there was a very small number of cases (n=2). Thus, neither a case-control study nor a cohort study was feasible. Secondly, *C. botulinum* is a class A agent which limits laboratory options. In addition, several laboratories were contacted about conducting subtyping for the two specimens and, after much internal discussion, the botulism laboratory at CDC agreed to take the samples but with the stipulation that the results would only benefit future knowledge of the organism and would not be valid for this investigation.

b. The lack of a central source for identifying and tracking mortality among dependents of active-duty service members within the DOD is also problematic. Although establishment of centralized databases to monitor unexplained child deaths was formally recommended by the American Academy of Pediatrics in 1999, actions have not been undertaken within the DOD to
allow this capability. Creation of a mortality registry for dependents would allow determination of baseline mortality risk from all causes, thereby enabling the study of epidemiological patterns of these deaths and focused prevention strategies to reduce the incidence of death in the spouses and children of service members. The OAFME/AFIP has submitted a proposal for funding this type of surveillance (appendix D). However, this remains an unmet need since the proposal did not receive funding.

c. Additionally, the lack of access to laboratory data for confirmation of probable or clinically diagnosed cases is problematic. This confirmation was not available for the majority of infant botulism cases identified among DOD beneficiaries, making it difficult to directly compare incidence estimates with state and national estimates which are based solely on laboratory-confirmed cases. Therefore, it is not possible to determine if rates among DOD beneficiaries are elevated as compared to national rates.

9. RECOMMENDATIONS.

a. The EPICON team recommends that—

(1) Military Health System providers throughout the NCR be made aware of the two cases at Fort Meade in order to reinforce the need to seriously consider botulism in the differential diagnosis when evaluating infants with paralytic signs or significant constipation and when SIDS cases are encountered.

(2) The NCR providers and clinic staff receive a message reinforcing the need to communicate reportable medical events to both civilian and military public health authorities.

(3) The NCR beneficiaries who are parents of newborns and infants be informed about intestinal botulism as part of child health education.

(4) Army epidemiologists enhance surveillance for botulism cases.

(5) The policy makers at DOD take the AFIP proposal (appendix D) into consideration.

(6) Access to laboratory results by centralized data management agencies, such as the DMSS, be improved to enhance ongoing surveillance activities.

b. Although public interest is not as elevated as it was initially, some questions do linger within the community. Therefore, risk communication efforts should continue on a scaled-down basis. Monitoring of media coverage should continue, and the garrison should remain prepared to respond to community rumors, misunderstandings and misperceptions in a timely manner.
c. Because new information regarding infant botulism and this investigation is limited, it is recommended that the results of the EPICON team investigation be released in order to meet community expectations. While education of the community was a key component of the risk communication process, particularly during the initial response phase, this interactive component of risk communication is still crucial and should be continued to—

(1) Gauge how widespread concerns may be.

(2) Obtain empirical data from the community regarding how they view the command’s response.

(3) Identify any lingering misperceptions/misunderstandings about this issue and verify that risk communication education efforts were effective.

(4) Identify the most preferred communication venues.

(5) Identify the most trusted sources of information on this issue.

(6) Further demonstrate the command’s commitment to community well-being

10. POINT OF CONTACT. Direct inquiries regarding this report to MAJ [redacted], Project Officer, Directorate of Epidemiology and Disease Surveillance, at commercial email [redacted] or email to [redacted]@us.army.mil.

<Editor’s Note: Please add any other signature blocks as appropriate.>

Approved:

[Signature]

COL, MC
Director, Epidemiology and Disease Surveillance
APPENDIX A

REFERENCES

Literature Cited


Other Publications


<Editor’s Note: We should probably add references for CDC 52.73 and the New York City Department of Health Questionnaire. We have to be careful with modification of forms>
APPENDIX B

CLOSTRIDIUM BOTULINUM QUESTIONNAIRE USED FOR INVESTIGATION
Hypothesis Generating Questionnaire (Infant Botulism)

(Modified January 2007 from a New York City Department of Health Questionnaire and CDC Form 5273, Guide to Investigation of Infant Botulism)

Initials of interviewer _______

Date form completed: __/__/____

DEMOGRAPHIC INFORMATION OF THE CASE

Parent's last name: ________________________ Parent's first name: ________________________

Infant's last name: ________________________ Infant's first name: ________________________

Home address: ______________________________

Phone: ( ) ______

Sex: □ Male □ Female

Race/Ethnicity: □ White, not Hispanic □ Black, not Hispanic □ Hispanic □ Asian or Pacific Islander □ American Indian or Alaska native □ Unknown

Mother's Age: ____________________________ Father's Age: ______________________________

Mother's Occupation: ______________________ Father's Occupation: ______________________

Number of Pregnancies: ___________________

Number of Live Births: ____________________

Type of Delivery (cases only): □ Vaginal □ C-Section

Complications: □ Yes □ No If yes, please explain: ______________________

Was infant premature? □ Yes □ No □ Unknown If yes, gestational age (weeks) ________

What was infant's birth weight ________________

1. Where was your child born? □ Hospital □ Other __________________________

Hospital Name: _________________________

Age at discharge from hospitals? _________

Was your child premature? □ Yes □ No □ DK
EPICON No. 13-HG-06TU-07, Fort Meade MD, Jan 06

2. Where do you usually take your child for medical problems or for well baby visits?
   - Pediatrician  □ Family/gen practitioner  □ Nurse practitioner or PA
   - ER  □ Other (Please specify)

3. Before your child’s illness from botulism began, did he/she see a physician for any other medical problems (not including well-child visits or visits for immunizations)?  □ Yes  □ No  □ DK

4. Did your child receive antibiotics in the month prior to illness onset?  □ Yes  □ No  □ DK

5. What was your infant’s usual bowel movement pattern during the following months of life?
   - ≥ 1 BM/day
   - 1 > BM ≤ 3/day
   - < 1/3 days
   - unknown
   1st month
   2nd month
   3rd month
   4th month

When we first interviewed you about your child’s illness, you reported that he/she first appeared sick on ____/___/____ (onset date). Is this the correct date?  □ Yes  □ No  □ DK

I. Food/Liquid Exposures

6. Prior to your child’s illness on ____/___/____ (onset date), was your child being breast-fed?
   - Yes  □ No  □ DK
   If yes, how many times per day do you breast feed? _____

7. Prior to your child’s illness on ____/___/____ (onset date), was your child being bottle fed?
   - Yes  □ No  □ DK
   Do you use expressed breast milk to bottle feed?  □ Yes  □ No  □ DK
   Do you use formula to bottle feed?  □ Yes  □ No  □ DK
   Which formula did you primarily use? ________________________________
   Please specify other brands of formula that you used.       (List all brands used) 

What type of formula do you usually use? Did you use...
   a. Liquid (ready to serve)  □ Yes  □ No  □ DK
b. Liquid (conc. add water)  □ Yes  □ No  □ DK

c. Powdered  □ Yes  □ No  □ DK

Who usually prepared the formula?
Name: ____________________________
Relationship to the child: ____________________________
If water was used, what was the source of the water?
If tap water, was it boiled or filtered?  □ Yes  □ No  □ DK

How many bottle feedings per day? __________

8. Prior to your child’s illness, did he/she eat any baby cereal?  □ Yes  □ No  □ DK

   Please specify type and brand (rice, oatmeal, etc.). ____________________________

9. Did your child eat jars, bottles, or cans of baby food?  □ Yes  □ No  □ DK

   Please specify type and brand. ____________________________

10. Did your child eat any baby food that was prepared at home?  □ Yes  □ No  □ DK

   Please specify how it was prepared ____________________________

11. Did your child eat any home-canned foods?  □ Yes  □ No  □ DK

12. Did anyone in your family eat any home-canned foods?  □ Yes  □ No  □ DK

13. Did your child drink any regular cow’s milk (pasteurized)?  □ Yes  □ No  □ DK

14. Did your child drink any unpasteurized milk?  □ Yes  □ No  □ DK

15. Did your child eat or drink any honey?  □ Yes  □ No  □ DK

16. Did your child eat any corn syrup?  □ Yes  □ No  □ DK

17. Did your child drink any sugar/water?  □ Yes  □ No  □ DK

18. Did your child drink any fruit juices?  □ Yes  □ No  □ DK

19. Did your child drink any unpasteurized fruit juices?  □ Yes  □ No  □ DK
20. Did your child eat any meats? □ Yes □ No □ DK

21. Did your child eat any fish? □ Yes □ No □ DK

22. Did your child drink tea? □ Yes □ No □ DK
   Was it sweetened? □ Yes □ No □ DK

23. Did your child receive any supplemental vitamins in the month before the illness began? □ Yes □ No □ DK
   If yes, please specify_____________________________________________________
   Did they contain iron? □ Yes □ No □ DK

24. Did your child eat any fresh produce (fruits or vegetables) that were organically grown? □ Yes □ No □ DK
   If yes, please specify which fruits and vegetables were organically grown_____________________

25. Does anyone in your family eat any fresh produce (fruits or vegetables) that is organically grown? □ Yes □ No □ DK
   If yes, please specify which fruits and vegetables were organically grown_____________________

26. Do you shop at any Farmer’s Markets? □ Yes □ No □ DK
   If yes, please specify________________________________________________________

27. Where do you shop for groceries? _____________________________________________

28. Where do you shop for baby food and other baby items? __________________________

II. Environmental exposures
29. Was there any of the following during the month before your child’s onset near your home:
   □ construction (e.g. new home or other building)
   □ excessive dust (e.g. sewers, new foundations)
   □ excavation
   □ new road construction
   □ plowing of fields
EPICON No. 13-HG-06TU-07, Fort Meade MD, Jan 06

☐ environmental change (e.g. remodeling of your home, landscaping)
If yes, describe

30. Was there any of the following during the month before your child’s onset at other sites where your child has been:
☐ construction (e.g. new home or other building)
☐ excessive dust (e.g. sewers, new foundations)
☐ excavation
☐ new road construction
☐ plowing of fields
☐ environmental change (e.g. remodeling of your home, landscaping)
If yes, describe

31. Did your child or anyone else in your family play in a sandbox prior to illness?
☐ Yes ☐ No ☐ DK
If so, where? (list)

32. How often is the furniture in your house dusted?
☐ more than once per week
☐ once a week
☐ less than once per week but at least every two weeks
☐ less than every two weeks
☐ other (please specify)
☐ unknown/refused

33. Do you have any carpets or area rugs covering the floor in your house? ☐ Yes ☐ No ☐ DK
If yes, are they
☐ wall to wall carpets
☐ area rugs
☐ both wall to wall and area rugs
What is the pile of wall to wall carpeting, (low, med, or shag)?

34. How often are your floors and carpets vacuumed?
☐ more than once per week
☐ once a week
☐ less than once per week but at least every two weeks
☐ less than every two weeks
35. What type of heating system do you have in your home?
- forced air (e.g. gas, oil, electric)
- steam heat (radiators)
- circulating hot water (e.g. solar, oil, gas)
- electric
- other (please specify)

36. Does your home have air conditioning?
- Yes
- No
- DK

37. Do you have any electric air cleaner in your home?
- Yes
- No
- DK

38. Were you or anyone in your household or family involved in gardening or yard work prior to your child's illness onset?
- Yes
- No
- DK

39. Do you have any plants inside your house?
- Yes
- No
- DK

40. Do you take your child for walks outside?
- Yes
- No
- DK

Which months of the year do you garden? ________________________________

Are there any plants in the baby's room? ________________________________

Do you go to any nearby parks? ________________________________
41. Does your child play or lie on the ground outside?  □ Yes  □ No  □ DK
   Please specify in backyard, park, etc.

42. Are you a member of any social or religious organizations?  □ Yes  □ No  □ DK
   If yes, please specify ____________________________
   Did you take your child to any events?  □ Yes  □ No  □ DK
   Was your child at an associated daycare during any of these events?
   If yes, where/when? ____________________________

43. Is your child in school/daycare or does he/she participate in any other group activities?
   □ Yes  □ No  □ DK
   If yes, please provide names and locations ____________________________
   Describe "other group activities" ____________________________________

44. Did your child travel outside of Ft. Meade at all prior to his/her illness?  □ Yes  □ No  □ DK
   If yes, please specify where? ____________________________

45. Did your child travel outside of Maryland prior to his/her illness?  □ Yes  □ No  □ DK
   If yes, please specify location, length of stay, and nature of visit ________

46. Did you visit a live poultry or meat market?  □ Yes  □ No  □ DK
   If yes, did you purchase any poultry or meat?
   Specify type of meat purchased: ____________________________
   Name of market: ____________________________
   Address of market: ____________________________
   Did you take your child to the live market?  □ Yes  □ No  □ DK

47. Did you take your child to any large gatherings prior to illness (wedding reception, parties, festivals, fairs, religious gatherings, etc.)  □ Yes  □ No  □ DK
   If yes, please specify ____________________________

48. Did your child swim/wade/splash in an ocean, lake, river, pool, or recreational water park in the before his/her illness onset?  □ Yes  □ No  □ DK
   If yes, please specify ____________________________

49. Did your child come into contact with any animals in the prior to illness?  □ Yes  □ No  □ DK
EPICON No. 13-HG-06TU-07, Fort Meade MD, Jan 06

50. Where did you buy/obtain your baby’s crib?
Was the crib used or new? ☐ Yes ☐ No ☐ DK
Was the mattress used or new? ☐ Yes ☐ No ☐ DK

51. Does your child share toys with anyone? ☐ Yes ☐ No ☐ DK
If yes, please specify

52. How often do you sterilize bottles before using them? ☐ Always ☐ Sometimes ☐ Never

53. How often do you sterilize nipples before using them? ☐ Always ☐ Sometimes ☐ Never

54. Does your child use a pacifier? ☐ Yes ☐ No ☐ DK
Where were pacifiers purchased?
How often do you clean the pacifier?
If the pacifier falls on the floor:
How often do you clean with water? ☐ Always ☐ Sometimes ☐ Never
How often do you clean with soap? ☐ Always ☐ Sometimes ☐ Never
How often do you sterilize? ☐ Always ☐ Sometimes ☐ Never

55. Who is your child’s pediatrician?
Pediatrician’s name: ____________________________
Clinic name: ____________________________
Address: __________________________________________
Phone number: ( ) ____________

56. Do you know anyone other infants who have had a similar illness as your child’s?
☐ Yes ☐ No ☐ DK
If yes, please specify ________________________________________________________________

Additional comments, ________________________________________________________________

Thank you very much for your time.

B-9
APPENDIX C

RISK COMMUNICATION PRODUCTS AND MEDIA RELEASES FOR CLOSTRIDIUM BOTULINUM INVESTIGATION
Infant Botulism Found in Two Children at Fort Meade

FORT GEORGE G. MEADE, Md., - Since October 2006, Walter Reed Army Medical Center (WRAMC) has identified two cases of infant botulism involving residents of Fort Meade. One infant has recovered while the other infant is being treated by doctors at WRAMC. Both children were under six months of age at the time of diagnosis.

The cause is currently under investigation by the Preventive Medicine Services on Kimbrough Ambulatory Care Center (KACC).

"Infant botulism is a treatable condition associated with the ingestion of clostridium botulinum bacteria found naturally in soils and in some contaminated food products. It would be premature to speculate about a particular source because we are still trying to conduct our investigation," said Chief of Preventative Medicine at KACC, Lt. Col. Sharon Cole-Wainwright.

Infant Botulism is rare and usually affects infants under six of age.

Symptoms may include constipation, listlessness, difficulty swallowing, a weak cry and a loss of appetite. If parents are concerned, they should contact their health care provider.

Health care professionals recommend that parents of infants wash their hands frequently, clean toys and pacifiers in a weak bleach solution, and thoroughly boil water used to prepare baby formula. These are not foolproof measures for preventing botulism infection, but they afford some protection against the most common avenues of transmission.

(more)
"Our primary concern is always the health and welfare of the members of our community. We will work closely with health officials and will keep the community informed of any new information as it comes available. The Army is committed to providing the safest living and working environment for its people," said Col. Kenneth McCready, installation commander.

-30-

EDITOR'S NOTE: For more information contact Summer Barkley, Media Relations Director, at (301) 677-1436 or...
MESSAGE FROM THE INSTALLATION COMMANDER

INFANT BOTULISM FACT SHEET

Walter Reed Army Medical Center has identified two cases of infant botulism at Fort Meade since Oct. 2006. One infant has recovered while the other infant is being treated by doctors at Walter Reed Army Medical Center. The infants, both under the age of 6 months at the time of diagnosis, were treated at Walter Reed Army Medical Center. The cause is currently under investigation by the Preventive Medicine Services at Kimbrough Ambulatory Care Center on Fort Meade. LTC Sharon Cole-Wainwright, Chief of Preventive Medicine at Kimbrough Ambulatory Care Center said, "while the name of the disease can be frightening, infant botulism is a treatable condition associated with swallowing the botulinum bacteria found naturally in soils and in some contaminated food products. It is premature to speculate about a particular source until the investigation is complete." Cases of Infant Botulism are rare and usually occur among infants less than 6 months of age.

What are the symptoms of Infant Botulism?

Any or all of the following:
- constipation
- poor feeding and a weak suck
- weak cry
- loss of head control
- difficulty swallowing
- excessive drooling
- floppy appearance or "floppy baby"
- generalized weakness
- breathing difficulties

What do you do if your infant is experiencing these symptoms?

Call (301) 677-8606 or go to the nearest Emergency Room
- Howard County General Hospital 5755 Cedar Lane, Columbia, Maryland (410) 740-7890 or 7990
- Laurel Regional Hospital 7300 Van Dusen Road, Laurel, Maryland (301) 725-4300 or (410) 792-2270
- Baltimore Washington Medical Center, 301 Hospital Drive, Glen Burnie, Maryland (410) 787-4000

How is Infant Botulism treated?

Prompt diagnosis is essential. Medication is available to treat the condition.

How can I reduce the risk of contracting Infant Botulism?

- Wash hands frequently
- Avoid giving honey to infants less than 1 year of age
- Routine and frequent cleaning of toys—particularly items that babies place in their mouths and those toys which have fallen on the ground or floor
- Through proper preparation of foods (boiling and cooking)
- Avoid cans of food/formula with dents or that are bulging or rusting
- Avoid locations with excessive dust and debris

For further information about the disease, contact Kimbrough Ambulatory Care Clinic, Preventive Medicine Services (301) 677-8661. If you have other questions or are contacted by the media please refer them to the Fort Meade Public Affairs Office at (301) 677-1436 or 1486.
EPICON No. 13-HG-06TU-07, Fort Meade MD, Jan 06

EPIDEMIOLOGICAL CONSULTATION TEAM AND ITS MISSION AT FORT MEADE
16 Jan 07

BACKGROUND:
In response to lingering concerns about the two cases of infant botulism at Fort Meade, an epidemiological consultation (EPICON) team was requested to assist the medical community here at Fort Meade in its investigation. The EPICON team arrived at Fort Meade on Friday January 12th to begin its mission to investigate the occurrence of these cases. This fact sheet provides some background information about the team and its mission.

What is an EPICON team?
Epidemiology is the science devoted to investigating how population factors and the environment influence the occurrence of diseases or injuries. The team then applies this science to find possible causes, risk factors and opportunities for prevention.

Who is on the EPICON team? Where are they from? What are their specialties?
The EPICON team members are from the U.S. Army Center for Health Promotion and Preventive Medicine, part of the Army’s Medical Command, who specializes in preventive medicine, environmental health, epidemiology, and communication about health matters when public concerns are high. In conducting this study the team is collaborating with a physician-epidemiologist from Anne Arundel County’s public health department, the Kimbrough preventive medicine staff, the Centers for Disease Control and Prevention (CDC) and the California state health department.

Why is the EPICON team here?
The team was called by the Kimbrough Ambulatory Acute Care Hospital and Garrison Commanders because they believed someone from outside Fort Meade was needed to review the situation and provide advice while allowing Kimbrough to continue their important clinical and preventive medicine mission without disruption.

What methods is the team using to try and find answers?
The team is working to determine if there is any connection between the two cases of infant botulism. The team has interviewed the affected families to identify products used, places visited, possible common exposure, etc. They are reviewing clinical test results on the affected children during their illness, and will review more detailed analysis currently being done at a Maryland state laboratory which will identify the specific subtype of botulism bacteria. Team members are also looking at disease surveillance reports and other data to see if the Fort Meade community or Anne Arundel County has experienced similar cases.

Will environmental sampling be done?
It’s certainly understandable why finding the cause is so important to families with young children. Focused environmental sampling in specific areas may be conducted for purely scientific reasons, such as to determine where the bacteria might be present. But random sampling throughout a wide area is unlikely to provide a definite link to the two Fort Meade...
cases or help direct future preventive measures, or provide a definite link to one or a few specific areas of contaminated objects or soil. This is because the botulism-causing bacteria are widely distributed in many environments around the world.

How long will the team's investigation take?
The results of the subtyping of the bacteria from the affected infants are expected to be completed on or about January 20th. This information is critical in answering the question, “Are the two cases connected?” However, the team’s mission will not end there. The EPICON team will continue to conduct a thorough review of the local surveillance data and existing scientific literature; and continue to collaborate with the Fort Meade medical authorities, the Fort Meade garrison, as well as with Anne Arundel County and CDC partners before finalizing its report. The team anticipates delivering a report to the Garrison Commander by the end of February.

Where can I learn more about infant botulism?

National Institutes of Health:
Infant Botulism:
Botulism:

Mayo Clinic Infant Botulism and Honey:
http://www.mayoclinic.com/health/infant-botulism/HQ00854

California Department of Health Services:
http://www.infantbotulism.org/
EPICON No. 13-HG-06TU-07, Fort Meade MD, Jan 06

EPIDEMIOLOGICAL CONSULTATION TEAM AND ITS MISSION AT FORT MEADE
23 Jan 07

BACKGROUND:
In response to lingering concerns about the two cases of infant botulism at Fort Meade, an epidemiological consultation (EPICON) team was requested to assist the medical community here at Fort Meade in its investigation. The EPICON team arrived at Fort Meade on Friday January 12th to begin its mission to investigate the occurrence of these cases. This fact sheet provides some background information about the team and its mission.

What is an EPICON team?
Epidemiology is the science devoted to investigating how population factors and the environment influence the occurrence of diseases or injuries. The team then applies this science to find possible causes, risk factors and opportunities for prevention.

Who is on the EPICON team? Where are they from? What are their specialties?
The EPICON team members are from the U.S. Army Center for Health Promotion and Preventive Medicine, part of the Army's Medical Command, who specializes in preventive medicine, environmental health, epidemiology, and communication about health matters when public concerns are high. In conducting this study the team is collaborating with a physician-epidemiologist from Anne Arundel County's public health department, the Kimbrough preventive medicine staff, the Centers for Disease Control and Prevention (CDC) and the California state health department.

Why is the EPICON team here?
The team was called by the Kimbrough Ambulatory Acute Care Hospital and Garrison Commanders because they believed someone from outside Fort Meade was needed to review the situation and provide advice while allowing Kimbrough to continue their important clinical and preventive medicine mission without disruption.

What methods is the team using to try and find answers?
The team is working to determine if there is any connection between the two cases of infant botulism. The team has interviewed the affected families to identify products used, places visited, possible common exposure, etc. They are reviewing clinical test results on the affected children during their illness, and will review more detailed analysis currently being done at a Maryland state laboratory which will identify the specific subtype of botulism bacteria. Team members are also looking at disease surveillance reports and other data to see if the Fort Meade community or Anne Arundel County has experienced similar cases.

Will environmental sampling be done?
It’s certainly understandable why finding the cause is so important to families with young children. Focused environmental sampling in specific areas may be conducted for purely scientific reasons, such as to determine where the bacteria might be present. But random sampling throughout a wide area is unlikely to provide a definite link to the two Fort Meade
FOR IMMEDIATE RELEASE

Infant botulism investigation update

FORT GEORGE G. MEADE, MD., -- Maryland health officials have confirmed the presence of Type B Clostridium botulinum bacteria from both cases of infant botulism recently diagnosed at Fort Meade. This confirmation was expected as this type of botulism strain is typically found on the East Coast.

The first case of infant botulism was diagnosed in October 2006 and the second in December 2006. Both children have since been treated and are recovering. The children live on Oliver Court at Fort Meade.

The Maryland Department of Health and Mental Hygiene (DHMH) have contacted the Center for Disease Control and Prevention in Atlanta, Ga., to determine if they are willing to do subtyping of the bacteria.

Investigators continue to discuss and coordinate with DHMH, CDC, Fort Meade medical authorities and other experts as they work towards completing the investigation.

In addition, the Army's Medical Surveillance Activity (AMSA) is also working on a retrospective analysis of botulism cases from 1996-2005 for publication in their Medical Surveillance Monthly Report (MSMR) article. These reports are available online at http://amsa.army.mil/AMSA/amsa_home.htm.

-30-

EDITOR'S NOTE: For more information please contact Summer Barkley at (301) 677-1436 or Jennifer Downing at (301) 677-1486.
cases or help direct future preventive measures, or provide a definite link to one or a few specific areas of contaminated objects or soil. This is because the botulism-causing bacteria are widely distributed in many environments around the world.

**How long will the team's investigation take?**
The results of the subtyping of the bacteria from the affected infants are expected to be completed on or about January 20th. This information is critical in answering the question, "Are the two cases connected?" However, the team's mission will not end there. The EPICON team will continue to conduct a thorough review of the local surveillance data and existing scientific literature; and continue to collaborate with the Fort Meade medical authorities, the Fort Meade garrison, as well as with Anne Arundel County and CDC partners before finalizing its report. The team anticipates delivering a report to the Garrison Commander by the end of February.

**Where can I learn more about infant botulism and/or the EPICON team?**

Fort Meade web page:

USACHPPM and the EPICON team:
Public Affairs Office: 410-436-2088

National Institutes of Health:
Infant Botulism:
Botulism:

Mayo Clinic Infant Botulism and Honey:
http://www.mayoclinic.com/health/infant-botulism/H000854

California Department of Health Services:
http://www.infantbotulism.org/
APPENDIX D

ARMED FORCES INSTITUTE OF PATHOLOGY (AFIP) PROPOSAL TO FUND DEVELOPMENT OF A DEPENDENT MORTALITY BASE
Dependent Mortality Database

Proposed: The goal of this paper is to explore the feasibility of establishing a registry of dependent fatalities, to include exploration of methodologies.

Background: Currently, there is no central source for identifying and tracking mortality amongst the dependents of active duty servicemembers. It is widely believed that domestic abuse is more prevalent in military families than in their civilian counterparts, and numerous programs have been established to mitigate the perceived increased risk of domestic violence in service member's families. Establishing a registry of deaths in dependents will allow for the determination of baseline mortality risk from all causes, to include more accurate tracking of domestic violence related deaths. Other potential research areas that could be explored using this registry include reviews of specific types of accidents, SIDS, cancer and infectious disease mortality. By studying the epidemiological patterns of these deaths, focused prevention strategies can be developed to reduce the incidence of death in the spouses and children of servicemembers. Furthermore, establishment of centralized databases to monitor unexplained child deaths was formally recommended by the American Academy of Pediatrics in 1999 (Kairys SW, Alexander RC, Block RW, et al. American Academy of Pediatrics. Committee on Child Abuse and Neglect and Committee on Community Health Services. Investigation and review of unexpected infant and child deaths. Pediatrics 1999; 104:1158-60).

Data Sources and Methodology: The existing DoD-Medical Mortality Registry is an active surveillance system designed to provide real-time outbreak information to decision-makers (Gardner JW, Cozzini CB, Kelley PW, et al. The Department of Defense Medical Mortality Registry. Mil Med. Jul 2000;165(7 Suppl 2):57-61.). An investigation is triggered by receiving current information from each of the Service-Specific Casualty Offices. There would be value in actively monitoring child deaths for infectious agents, as children are often sentinels for outbreaks. An example occurred last year during the influenza outbreak that was particularly noted for causing child fatalities. However, because the Casualty Offices only track and report dependent deaths that occur overseas, real time surveillance of dependent fatalities is not achievable at this time. An alternative approach is to establish a Registry consisting primarily of death certificate data, obtained from National Death Index (NDI) searches. For the purposes of monitoring homicides, this basic level data would provide demographics and a basis for comparison with civilian homicide rates. It would also provide an estimate for the completeness of capture of the established Fatality Review Boards. The two major limitations of this approach are lag time, which averages approximately three years, and incomplete information.

Budget: The costs of establishing a Death Certificate based registry as part of the Armed Forces Medical System are approximately 350K per year, which would support an epidemiologist to collect and analyze the data, and the direct costs of the NDI searches. If real time investigative surveillance is desired, a mechanism for rapidly identifying dependent fatalities would have to be established. Costs from the Armed Forces Medical Examiner System would increase to approximately 450K per year.
Here's my quick attempt at a Botulism wrap-up article. Need to know what you think about closing the loop from a PAO, medical and a legal standpoint (I recently received a rather incoherent fax from Mrs. _____ indicating she may be doing independent soil testing. She also stated: "if there are no developments in the case of my baby's illness, I will have no other choice but to go to the media again."). I have a copy of her letter and a copy of the report.
The final report of the special team gathered to investigate two cases of infant botulism at Fort Meade in October and December 2006 has been completed. An Epidemiological Team headed by the U.S. Army Center for Health Promotion and Preventive Medicine reported finding "no common exposures that may have been a likely source of the outbreak, and no possible food sources." Further, after consulting with \textit{C. botulinum} experts, CDC representatives, and Maryland and Anne Arundel County public health officials, the team concluded that "environmental testing would not prove or disprove a link between the cases and the environment." As a result, the report contained no call for environmental testing. The report makes the following recommendations:

1. Make Military Health System providers throughout the National Capital Region (NCR) aware of the two cases at Fort Meade in order to reinforce the need to seriously consider botulism in the differential diagnosis when evaluating infants with paralytic signs or significant constipation and when Sudden Infant Death syndrome cases are encountered.

2. Reinforce the need for NCR clinic staff to communicate reportable medical events to both civilian and military public health authorities.

3. Encourage referral centers like Walter Reed Army Medical Center (WRAMC) to engage preventive medicine personnel (both its own and those of pertinent installations) early in the course of such events.

4. Enhance Army epidemiologic surveillance for botulism cases.

5. Establish a DOD registry of dependent fatalities.

6. Improve centralized access to military clinical laboratory data.

7. Inform NCR beneficiary parents of newborns and infants about intestinal botulism as part of child health education.

8. Ensure construction contracts serving Fort Meade and other installations require control measures to minimize dispersion of fugitive dust.

9. Continue risk communication efforts on a scaled-down basis, monitor media coverage, and remain ready to respond to community rumors, misunderstandings and misperceptions in a timely manner.

In response to this report, the Installation Commander will implement the recommendations that fall under his control (recommendations 8 and 9). While current construction contracts already require developers to dampen soil to minimize dust, this requirement will be further emphasized in future contracts. Colonel McCreedy stated: "We realized that the nature of the botulism bacteria made it unlikely that we would find a specific source if a food-borne source could not be identified. We are relieved that no further incidents have occurred and are most happy to report that both of the affected babies are doing fine. We remind the community to be aware of the symptoms of this disease and to act quickly if their infants manifest any of them."

Reelist the symptoms.
Thanks for drafting. I want COL’s input first. If your flight beats me tomorrow I’ll send over my address and endorse.

Let me know what you think of this. I might specify that you (+/- via your PM shop) be the principal conduit for info flow, but I cannot presume you’ll take that

Sent from my BlackBerry Wireless Handheld

---Original Message---
From: MAJ USACHPPM
To: COL USACHPPM
Sent: Tue May 01 19:36:56 2007
Subject: FW: CDC testing (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Sir,
Here is the message I want to send to the group.

All,
As many of you know COL (DR) is retiring very soon. He is currently clearing and will no longer be working this EPICON. He has asked me to stand in as the PM physician as we move forward (with MAJ support if available).

Recent events include:
1) This week has contacted Ms. (CHPPM Risk Communications) and Dr. Russo (AA County Public Health) reference our investigation. He has expressed great concern with our investigation (see message below).
2) CDC lab results are expected with the next two weeks.
3) Fort Meade SJA has been in contact with me. Fort Meade Installation Commander, wants to publish an article on our investigation in the post newspaper. He is asking if we have any objections to publishing the information summarized in the draft EPICON report.

In my conversation with he has emphasized we focus on certain things as we move forward:

1) Be open and forthright but we should not tailor our EPICON or responses to a single individual and instead should focus on the entire FT Meade community.
2) Risk Communication, PAO and SJA (legal) must be involved in all communications.
3) We must speak with a common voice and through a common source. We feel possible sources could be either Dr. Russo in the local public health district or Dr. Blythe at the State (might be advisable due to the concerns of an "Army cover-up"). Source could be Fort Meade Preventive Medicine, or USACHPPM as well. Whoever it is, this source should communicate directly to the Fort Meade command to avoid confusion.
4) We should have legal and PAO advise before we communicate our results to the public.
5) CDC laboratory results are expected shortly and they will be reported to Dr. David Blythe and the Maryland Public Health Lab first.
6) We support lab results be included in the EPICON report but they must be explained by an expert.
7) We support (with SJA, PAO and Risk Communication review) the inclusion of a summary of the EPICON report in the local FT Meade newspaper to keep the public informed.

Appreciate your professional opinions on these issues.

---

---Original Message-----

From: [redacted]  
Sent: Monday, April 30, 2007 10:19 AM
To: [redacted]
Cc: [redacted]
Subject: [redacted]

Classification: UNCLASSIFIED
Caveats: NONE

Sir,

I just called me reference the Ft Meade inf botulism EPICON. SGT [redacted] (parent of one Ft Meade infant bot case) called her this morning and they had a lengthy conversation reference his concerns. [redacted] wants to discuss the next steps in responding to him.

Apparently SGT [redacted] found internet articles on: His housing being built on a land fill; School across the street from his quarters had been used as a psychiatric ward; Clostridium stored on Fort Meade and possible experiments with German POW's in WWII? He claims whoever he is speaking with at CDC is telling him they do not have any samples and his contact is also telling him the Army and state of MD made a decision not to send any samples to CDC (must be confusing clinical with environmental samples).

His specific questions are:
1) Who is doing DNA subtyping and the status?
2) What is the answer on testing the soil? If answer in no what is scientific rationale behind the decision?

He wonders whether a conversation with Dr. Maslanka would help to quell concerns. My continued contact with the CDC labs (see message below) show as of 25 APR 07 the results are not available. Appreciate your guidance on next steps.

Vr,

---Original Message-----

From: Maslanka, Susan (CDC/CCID/NCZVED) [mailto:sht5@cdc.gov]
Sent: Wednesday, April 25, 2007 5:55 PM
To: [redacted]
Subject: Re: CDC testing (UNCLASSIFIED)

We are repeating some PFGE tests. Hope to get them complete in the next week or so and then I will provide a report to MD.

I can tell you so that you might plan your next steps, that I do not think we will be able
to distinguish the 2 case isolates based on our tests (PCR, RAPD, PFGE, and DNA gene sequencing).

Susan

Sent from my BlackBerry Wireless Handheld

-----Original Message-----
From: MAJ USACHPPM <usarmy.mil>
To: Maslanka, Susan (CDC/CCIB/NCEOVED) <sht5@cdc.gov>
Sent: Wed Apr 25 16:28:00 2007
Subject: FW: CDC testing (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Dr. Maslanka,
Just another follow up on the subtyping for the Fort Meade, MD cases.
Our customer wants an update so just checking to see if you have any results available.
Thanks,
MAJ

-----Original Message-----
From: MAJ USACHPPM
Sent: Wednesday, April 25, 2007 3:31 PM
To: CIV USA USAIMA
Cc: COL USACHPPM; White, Duvel W MAJ USACHPPM
Subject: FW: CDC testing (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hi

This is the best update we can provide. Still awaiting lab results.

On another note, I'd mentioned briefly to COL McCready about possibly doing some kind of evaluation within the local community about how the disease response was conducted. I would still like for you all to consider that, if you're willing. We can develop the community response mechanism in several forms (e.g., interviews, focus groups, online anonymous survey, etc.). But doing that kind of thing would be very helpful to us at CHPPM in improving future responses, and could provide you with data re: how the local Command responded. Just something to think about.

The best answer I can provide is quote from CDC's Dr. Maslanka below.
It may seem unusual for length of time required, but with very specific and rarely applied diagnostics that also require QC and verification, etc., this is not really unusual from the CDC or any high-level reference lab.
Thanks.
BP

-----Original Message-----
From: MAJ USACHPPM
Sent: Wednesday, April 04, 2007 5:38 PM
To: COL USACHPPM
Subject: FW: CDC testing (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Sir,
Still no intestinal bot results.
MAJ
I received your voice mail. We are still conducting tests on isolates received from MD State Health Department. We hope these will be completed in the next few weeks.

Susan

Susan Maslanka, PhD
Team Leader
National Botulism Laboratory Preparedness Team

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE
Colleagues,

As some of you know I am in the process of retiring from active duty. I am currently clearing/outprocessing, and will no longer be working this EPICON in the same, official capacity as previously. From CHPPM end, MAJ

and COL

nicely summarize recent events as follows, and I liberally plagiarize from their respective emails:

1) This week contacted Ms. (CHPPM Risk Communications) and Dr. Russo (AA County Public Health) reference our investigation, about which he expressed great concern.

2) Complete CDC lab results are expected with the next two weeks. It is not looking as though the two clinical case isolates will be linkable by subtyping (i.e., same type neither ruled in nor ruled out), which may have implications for any possible plan to pursue environmental sampling. This statement is not final so please do not transmit further.

3) Fort Meade legal (SJA) has been in contact with and , Fort Meade Installation Commander, sent an e-mail message this past weekend requesting support in terms of a review of the message he will send to the public (and place on the Ft Meade website). He would like to use the recommendations from the EPICON report [para 9a(1)-(9)] as the basis for his message; and he wanted to update the community on the status of the recommendations.

4) wants to publish an article on our investigation in the post newspaper. He is asking if we have any objections to publishing the information summarized in the draft EPICON report. recommends:

Assuming the report is releaseable (i.e., assuming has decided it is), it can be posted to the post website if so desired—and the article can reference it. In the article, all questions should be referred to Meade PAO—who can sort out the ones that are for the installation and refer the ones specifically about the EPICON to CHPPM PAO (NOT directly to our subject-matter experts).

In addition and I recommend we focus on certain things as we move forward:

1) Be open and forthright but not tailor our EPICON or responses to a single individual and instead should focus on the entire Ft Meade community.
2) Risk Communication, PAO and—as necessary—SJA should be involved in all communications.
3) It may be wise to have both legal and PAO review of any specific laboratory results before they are communicated to the public.
4) CDC laboratory results will be reported to Dr. David Blythe and the Maryland Public Health Lab first.
5) We support lab results being an addendum to the EPICON report but they must be explained by an expert.----
6) We must speak with a common voice and through a common source. In this regard COL

recommends:
For any requests for information (RFIs) from anyone with respect to installation (FT Meade) information, the RFI should be answered by an installation staff member. Anything medically-related to the bot tox case (or any medical information) should be managed by Kimbrough primary POC [redacted], who, in turn if she needs assistance from CHPPM, AA County or WRAMC PM, can contact the appropriate POC and be the conduit to respond to the RFI. Additionally, [redacted] should be the conduit to communicate medical information to COL McCriddy or whomever he designates.

Appreciate your attention.

Respectfully,

Classification: UNCLASSIFIED
Caveats: NONE
Subject: RE: Botulism final report.doc (UNCLASSIFIED)

From: MAJ USACHPPM
Sent: Tuesday, May 08, 2007 10:38 AM
To: LTC MIL USA USAIMA; CIV USA USAIMA; Mr USACHPPM; Ms USACHPPM; LTC KACC-Ft Meade
Cc: 

Subject: RE: Botulism final report.doc (UNCLASSIFIED)

Attachments: Botulism final report.doc

Surveillance U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM)

---Original Message---
From: LTC MIL USA USAIMA [mailto: LTC MIL USA USAIMA]
Sent: Monday, April 30, 2007 4:22 PM
MAJ

I am the SJA for Ft Meade, MD. The Ft Meade Installation Commander wants to publish an article in our post newspaper to close the loop on the two intestinal botulism cases reported here late last year.

In the attached draft article, he refers to information from CHPPM Epidemiological Consultation No. 13-HG-06TU-07. The cover memo for the report, dated 5 Mar 07, directs inquiries regarding the report to you.

Specifically, we ask whether CHPPM has any objections to publishing the information summarized in the draft article.

Thanks in advance for your help. Please contact me via email or at (301) if I can assist you in any way.

VR,

LTC Meade, MD

(301)

Classification: UNCLASSIFIED
Caveats: NONE
The final report of the special team gathered to investigate two cases of infant botulism at Fort Meade in October and December 2006 has been completed. An Epidemiological Team headed by the U.S. Army Center for Health Promotion and Preventive Medicine reported finding “no common exposures that may have been a likely source of the outbreak, and no possible food sources.” Further, after consulting with C. botulinum experts, CDC representatives, and Maryland and Anne Arundel County public health officials, the team concluded that “environmental testing would not prove or disprove a link between the cases and the environment.” As a result, the report contained no call for environmental testing. The report makes the following recommendations:

1. Make Military Health System providers throughout the National Capital Region (NCR) aware of the two cases at Fort Meade in order to reinforce the need to seriously consider botulism in the differential diagnosis when evaluating infants with paralytic signs or significant constipation and when Sudden Infant Death syndrome cases are encountered.

2. Reinforce the need for NCR clinic staff to communicate reportable medical events to both civilian and military public health authorities.

3. Encourage referral centers like Walter Reed Army Medical Center (WRAMC) to engage preventive medicine personnel (both its own and those of pertinent installations) early in the course of such events.

4. Enhance Army epidemiologic surveillance for botulism cases.

5. Establish a DOD registry of dependent fatalities.

6. Improve centralized access to military clinical laboratory data.

7. Inform NCR beneficiary parents of newborns and infants about intestinal botulism as part of child health education.

8. Ensure construction contracts serving Fort Meade and other installations require control measures to minimize dispersion of fugitive dust.

9. Continue risk communication efforts on a scaled-down basis, monitor media coverage, and remain ready to respond to community rumors, misunderstandings and misperceptions in a timely manner.

In response to this report, the Installation Commander will implement the recommendations that fall under his control (recommendations 8 and 9). While current construction contracts already require developers to dampen soil to minimize dust, this requirement will be further emphasized in future contracts. Colonel McCreedy stated: “We realized that the nature of the botulism bacteria made it unlikely that we would find a specific source if a food-borne source could not be identified. We are relieved that no further incidents have occurred and are most happy to report that both of the affected babies are doing fine. We remind the community to be aware of the symptoms of this disease and to act quickly if their infants manifest any of them.”

Relist the symptoms.
Sir,

Attached is our final text for the infant botulism EPICON press release. Two areas for clarification are marked with comments. Advise release with the understanding that we are still awaiting CDC lab subtyping results. Expect any time but have been waiting for quite some time. When released by CDC, recommend notification be from AA County PH (Dr. Kelley Russo) or Maryland PH (Dr. David Blythe) since they are who requested the labs from CDC and the subtyping is not part of our investigation.

VR,

PhD, Epidemiology
Director, Epidemiology and Disease Surveillance U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM)

Classification: UNCLASSIFIED
Caveats: NONE
Fort Meade, MD—The final report of the special Epidemiological Consultation Team gathered to investigate two cases of infant (intestinal) botulism at Fort Meade has been released. Results indicate that no common exposures or food sources caused two cases of infant (intestinal) botulism here. The Army Center for Health Promotion and Preventive Medicine (CHPPM) led the team, in consultation with several non-military experts.

"These investigations are difficult for at least two reasons," said CHPPM epidemiologist and team leader. "First, neither baby was fed honey—known to be a prime source of the disease in babies—or any of the same foods. That eliminated the most common cause of intestinal botulism, tainted foods."

Once food had been eliminated as a potential cause, team epidemiologists consulted with experts outside of the Department of Defense to determine whether environmental testing could assist in finding a cause for the two cases.

"This is because Clostridium botulinum spores, which can cause intestinal botulism, are found in soils and dust worldwide," White said. "Our team reached out to state and local public health organizations as well as national infant botulism experts to ensure we did not overlook a common source that could cause other Fort Meade infants to become ill."

Non-military experts consulted included medical and epidemiological experts from the state of California (recognized as a world leader in infant botulism treatment and research); the Maryland and Anne Arundel County public health officials; and the Centers for Disease Control and Prevention (CDC). All agreed that it was unlikely environmental testing would find a link between the cases and the environment, according to the report.

The state of Maryland Department of Public Health has also asked the CDC's botulism laboratory to conduct subtype testing (analysis) of stool specimens from both infants to try to identify the specific bacteria that can cause infant botulism. The garrison is currently awaiting these results which will be provided by the state of Maryland. CHPPM epidemiologists do not believe that these test results will affect their investigation.

The two infant botulism cases occurred in October and December, 2006 and both infants made a full recovery. No additional cases have been detected.

There are no known prevention strategies for non-foodborne intestinal botulism, so the report recommendations focus on increasing awareness of this illness and its symptoms within the local medical community; continuing to monitor the number of cases within DOD; educating families about the illness; and, on a local level, ensuring that construction companies working on Fort Meade take steps to minimize dust.

Lt. Col. Preventive Medicine at Kimbrough Ambulatory Care Center on Fort Meade, credits the infants' speedy recovery to the parents, who detected changes in their babies' behavior and sought medical care promptly.

"Noticing changes in their babies' behavior and seeking medical care resulted in rapid treatment that may have saved their lives," said.
The CHPPM report is downloadable on the Fort Meade Web site at [direct URL]. Information on the causes and prevention of infant botulism is available on the same site at http://www.ftmeade.army.mil/botulism.html.
Attached is my edit of MAJ edit. I want to address why the report was not released back in March.

Please provide comments. We'll want to publish something in this week's SoundOff. Should it go out as a general press release or just wait for queries?

I need to insert the proper URL. I think we'll just put in the Exec Summary. We can scan the report and post a PDF.

--- Original Message ---


Sir,

As discussed.

Maj

Sent from my BlackBerry Wireless Handheld

--- Original Message ---

From: MAJ USACHPPM To: LTC MIL USA IMCOM; Mr USACHPPM; Mr USACHPPM; LTC WRAIR-Wash DC; C Ms USACHPPM; LTC KACC-Ft Meade; COL KACC-Ft Meade

Sent: Thu May 31 09:02:47 2007
Subject: Infant Bot press release text for Ft Meade (UNCLASSIFIED)

<<NR Botulism final report30May_dww.doc>>

Classification: UNCLASSIFIED
Caveats: NONE

Sir,

Attached is our final text for the infant botulism EPICON press release. Two areas for clarification are marked with comments. Advise release with the understanding that we are still awaiting CDC lab subtyping results. Expect any time but have been waiting for quite some time. When released by CDC, recommend notification be from AA County PH (Dr Kelley Russo) or Maryland PH (Dr. David Blythe) since they are who requested the labs from CDC and the subtyping is not part of our investigation.
VR,

PhD, Epidemiology
Disease Epidemiology
Epidemiology and Disease Surveillance U.S. Army Center
for Health Promotion and Preventive Medicine (USACHPPM)
(Office)
(Blackberry)

Classification: UNCLASSIFIED
Caveats: NONE
Fort Meade, MD—The final report of the special Epidemiological Consultation Team gathered to investigate two cases of infant (intestinal) botulism at Fort Meade has been released. Results indicate that no common exposures or food sources caused two cases of infant (intestinal) botulism here. The Army Center for Health Promotion and Preventive Medicine (CHPPM) led the team, in consultation with several non-military experts.

"These investigations are difficult for at least two reasons," said Maj. Pest, CHPPM epidemiologist and team leader. "First, neither baby was fed honey—known to be a prime source of the disease in babies—or any of the same foods. That eliminated the most common cause of intestinal botulism, tainted foods."

Once food had been eliminated as a potential cause, team epidemiologists consulted with experts outside of the Department of Defense to determine whether environmental testing could assist in finding a cause for the two cases.

"This is because Clostridium botulinum spores, which can cause intestinal botulism, are found in soils and dust worldwide," White said. "Our team reached out to state and local public health organizations as well as national infant botulism experts to ensure we did not overlook a common source that could cause other Fort Meade infants to become ill."

Non-military experts consulted included medical and epidemiological experts from the state of California (recognized as a world leader in infant botulism treatment and research); Maryland and Anne Arundel County public health officials; and the Centers for Disease Control and Prevention (CDC). All agreed that it was unlikely environmental testing would find a link between the cases and the environment, according to the report.

The state of Maryland Department of Public Health has also asked the CDC's botulism laboratory to conduct subtype testing (analysis) of stool specimens from both infants to try to identify the specific bacteria that can cause infant botulism. The garrison is currently awaiting these results which will be provided by the state of Maryland.

The team provided its findings in a written report to COL Kenneth McCreedy, Fort Meade garrison commander, on March 5th, 2006. At the request of CHPPM, the report’s release was delayed in the hopes that the sub-type test results could be included. When no specific date could be established for release of this information, the command determined not to wait any longer to publish the report. CHPPM epidemiologists have stated that these test results will not affect their investigation or conclusions.

The two infant botulism cases occurred in October and December, 2006 and both infants made a full recovery. No additional cases have been detected.

There are no known prevention strategies for non-foodborne intestinal botulism, so the report recommendations focus on increasing awareness of this illness and its symptoms within the local medical community; continuing to monitor the number of cases within DOD; educating families about the illness; and, on a local level, ensuring that construction companies working on Fort Meade take steps to minimize dust.

Lt. Col. Thil, Preventive Medicine at Kimbrough Ambulatory Care Center on Fort Meade, credits the infants’ speedy recovery to the parents, who detected changes in their babies’ behavior and sought medical care promptly.

"Noticing changes in their babies' behavior and seeking medical care resulted in rapid treatment that may have saved their lives," said.
The CHPPM report is downloadable on the Fort Meade Web site at [direct URL]. Information on the causes and prevention of infant botulism is available on the same site at http://www.ftmeade.army.mil/botulism.html.

Comment [dw2]: Will the entire report be available or just the executive summary? Also ensure link is correct.
Ma'am,

As a result of COL retirement, I've taken over many of the 60C duties in DEDS, including the remnants of the botulism EPICON from several months ago. I tried to call you earlier today (Tues) and left a message with your secretary, but bottom line is that I've been contacted by father of one of the cases, who is seeking to supply me with "conclusive evidence" for soil testing. I did not speak with him -- he left two voicemail messages.

I discussed with who provided me with the background on this parent's activism, and with at CHPPM. We all agreed that it would be beyond our role as technical consultants to communicate directly with this parent, and that the matter should be first referred to you and the garrison commander.

I'd like to discuss how best to handle further communication with when you get the chance. My office phone is when you call is.

Thanks much, and I hope all's going well with your command,

MD, MPH

LTC, MC, USA

Preventive Medicine Residency Program Walter Reed Army Institute of Research

Professional Medical Education Program (11) US Army Center for Health Promotion and Preventive Medicine
Just giving you a heads up that we have been contacted by media for a followup.

At this time they have not requested us to provide a spokesman. We just gave the Reporter the article we did in the Soundoff last week.

They haven't called back. Either hey are busy or satisfied.

Will keep you updated in case we need something.

----- Original Message ----
From: [Redacted] Ms USACHPPM <[Redacted]@us.army.mil>
To: [Redacted] CIV USA IMCOM; [Redacted] Ms USACHPPM
CC: [Redacted] Ms CIV USA IMCOM; [Redacted] CIV USA IMCOM
Subject: INFANT BOTULISM MEDIA REQUEST

I wanted to inform you that Fort Meade PAO received a media query from Melissa Carlson of WBAL - TV. She was interested in obtaining more information about the infant botulism investigation.

Fort Meade PAO ran an article in our installation paper last week about some of the findings and also provided a Web address for the executive summary.

Our news release was prepared for query - only requests. I sent the release to Ms. Carlson (which is the same exact verbiage from the Sound Off article.)

your main PAO, wanted me to keep you in the loop about what is going on. If you need to speak with someone here please contact myself or 

Thanks!

v/r,
There's strong, and then there's Army Strong.

----Original Message----
From: ""C Ms USACHPPM [mailto:us.army.mil]"
Sent: Thursday, January 11, 2007 5:04 PM
To: ""
Subject: RE: Yr release on Kimbrough botulism cases

Thanks for the release. Please call me

No inquiries here on our support to the investigation of the cases at Kimbrough. We have not yet dispatched our people to supplement the Kimbrough staff.

I left Walter Reed and came to the Center for Health Promotion & Preventive Medicine in May. Very different responsibilities, and no staff (I am the only PAO). I love it here.

Of the nine people who worked with me at Walter Reed PAO, three are left. There have been two retirements and four who left for new jobs.

The latest decision I've heard regarding employment after the realignment of Walter Reed and National Naval Medical Center is that Walter Reed employees will have to compete for available positions (there are already PAOs and a newspaper staff at National Naval, but the staff will be beefed up some) and that the new Walter Reed National Military Medical Center will be under Navy command and control, so civilian employees there will convert from Army to Navy personnel management. We did not know this when you interviewed.

Hope you're happy as Fort Meade PAO—if Walter Reed was the other choice, you made a fortunate decision.

That said, there is no trauma center or rehabilitative medical staff in the country that could do what the Walter Reed Medical staff has done for the wounded from our current wars. There sustained excellence is amazing, and those of us who supported their efforts were privileged.

----Original Message----
From: ""C Ms USACHPPM [mailto:us.army.mil]"
Sent: Thursday, January 11, 2007 4:03 PM
To: ""
Subject: RE: Yr release on Kimbrough botulism cases

Good to hear from you. I trust all is well down at Walter Reed? I have attached our news release. If you need anything else, please let me know.

v/r,

Phone: (301)... Fax: (301...}

"There's strong, and then there's Army Strong."

----Original Message----
From: ""C Ms USACHPPM [mailto:us.army.mil]"
Sent: Thursday, January 11, 2007 1:25 PM
To: ""us.army.mil; ""us.army.mil"
Subject: Yr release on Kimbrough botulism cases

Phone: (301)... Fax: (301..."
Dear [Name or Title]

Would you please forward a copy of your final release on the infant botulism cases at Kimbrough to me? I have a draft version with blanks.

We've been asked to send some support personnel to Kimbrough to assist in medical investigation of these incidences, so I am preparing a simple RTQ on what our role is (if I can find anyone to give me some info!).

I will let you know if we get any media inquiries (doubtful, unless you send them to us).

Thanks,

[Sign-off]

U.S. Army Center for Health Promotion & Preventive Medicine

USACHPPM: Saving Lives & Resources--Prevention is the Key.
I've spoke with the Vets and they have coordinated with the Commissary and all of the cans have been removed from the shelves. I would like to disseminate this one for publication in the Sound Off and have copies made for the clinics/high traffic areas.

Thanks
LTC

-----Original Message-----
From: unknown KACC-Ft Meade
Sent: Wednesday, July 25, 2007 2:33 PM
To: LTC KACC-Ft Meade
Subject: Botulism in Castleberry's Food Product 24 JUL 07.doc (UNCLASSIFIED)

FYI,

Ms [redacted]
Kimbrough Ambulatory Care Center
2480 Llewellyn Avenue
Fort Meade, MD 20755
Commercial:
Fax: [redacted]army.mil
email: [redacted]army.mil

-----Original Message-----
From: unknown COL OTSG
Sent: Tuesday, July 24, 2007 4:49 PM

Classification: UNCLASSIFIED
Caveats: NONE

MAJ [redacted]

Would you please ensure that the Senior AMEDD leadership gets a copy of the information paper on botulism in Castleberry’s Food Products?

COL [redacted] would you please disseminate this info paper through the DCCS network?

COL [redacted] would you please disseminate this additional info paper through the PM network?

Thanks.
SUBJECT: Botulism and recall of Castleberry canned meat products

1. Purpose. To provide information to healthcare providers on botulism and the FDA food recall of Castleberry’s canned meat products, which may contain botulinum toxin.

2. Facts.

   a. The FDA issued a recall of various Castleberry brands of canned foods. As of 21 July 2007, four cases of botulism have been reported to Centers for Disease Control and Prevention (CDC) from Indiana (2 cases) and Texas (2 cases). Onset dates range from 29 June to 9 July 2007. All four persons were reported to have consumed Castleberry’s brand Hot Dog Chili Sauce Original. Botulinum toxin was identified in leftover chili sauce from an unlabeled, sealable bag collected from a patient’s refrigerator. This product has been identified as being available through Defense Commissary Agency stores as well as other commercial outlets.

   b. Healthcare providers should have a heightened awareness of the potential for cases of botulism and familiarity with presenting symptoms.

   c. Clostridium botulinum, a spore-forming obligate anaerobic bacillus, produces toxins which cause botulism, a serious, but relatively rare intoxication. These rod-shaped organisms grow best in low oxygen conditions, such as in canned goods. The bacteria form spores which allow them to survive in a dormant state until exposed to conditions that can support their growth. There are seven types of botulism toxin designated by the letters A through G; only types A, B, E and F cause illness in humans. The spores are ubiquitous in soil, worldwide. There are three forms of naturally occurring botulism: foodborne, wound, and intestinal (infant and adult).

   d. Classic symptoms of botulism include: double vision, blurred vision, drooping eyelids, slurred speech, difficulty swallowing, dry mouth, and muscle weakness. Infants with botulism appear lethargic, feed poorly, are constipated, and have a weak cry and poor muscle tone. If untreated, these symptoms may progress to cause paralysis of the arms, legs, trunk and respiratory muscles which can result in death. In foodborne botulism, symptoms generally begin 18 to 36 hours after eating a contaminated food, but they can occur as early as 6 hours or as late as 10 days. In the U.S., the case fatality rate is 5-10%.

   e. On average, 110 cases of botulism are reported each year the United States. Of these, approximately 25% are foodborne, 72% are intestinal botulism, and the rest are wound botulism.

   f. Defense Supply Center- Philadelphia (DSCP) issued an ALFOODACT 022-2007 (19 July 07) and expanded ALFOODACT 023-2007 (22 July 07) to all Army, Navy, Air Force, Marine Corps, Coast Guard or other activities as appropriate. Castleberry’s
DASG-PPM-NC
SUBJECT: Botulism and recall of Castleberry canned meat products

Food Company initiated a voluntarily recall. "FDA is expanding its July 18 warning to people not to eat the contents of certain cans of chili sauce due to the risk of botulism." Additional information can be found at the FDA website, http://www.fda.gov/oc/opacom/hottopics/castleberry.html, and at the CDC website, http://www.cdc.gov/botulism/botulism.htm.

g. As of 23 July 2007, products have been identified and removed at nine DoD locations. Castleberry is cooperating with the FDA, CDC, USDA, and the affected states' active investigation into the cause of the contamination.
Ma'ams,

I've made a couple of changes on the fact sheet for publication before publishing it in the Sound Off. I re-read and thought it may be more appropriate to remove some of the wording particularly since we have the Botulism cases here on post. Please provide comments etc.

Thanks

LTC

-----Original Message-----
From: LTC KACC-Ft Meade
Sent: Tuesday, July 31, 2007 1:44 PM
To: COL KACC-Ft Meade; KACC-Ft Meade
Subject: FW: Botulism in Castleberry's Food Product 24 JUL 07.doc (UNCLASSIFIED) Sound Off Article and Fort Meade Internet (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

I've spoke with the Vets and they have coordinated with the Commissary and all of the cans have been removed from the shelves. I would like to disseminate this one for publication in the Sound Off and have copies made for the clinics/high traffic areas.

Thanks

LTC

-----Original Message-----
From: LTC KACC-Ft Meade
Sent: Wednesday, July 25, 2007 5:22 PM
To: COL KACC-Ft Meade
Cc: COL KACC-Ft Meade
Subject: FW: Botulism in Castleberry's Food Product 24 JUL 07.doc (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

I've spoke with the Vets and they have coordinated with the Commissary and all of the cans have been removed from the shelves. I would like to disseminate this one for publication in the Sound Off and have copies made for the clinics/high traffic areas.

Thanks

LTC

-----Original Message-----
From: Ms KACC-Ft Meade
Sent: Wednesday, July 25, 2007 2:33 PM
To: LTC KACC-Ft Meade
Subject: Botulism in Castleberry's Food Product 24 JUL 07.doc (UNCLASSIFIED)

FYI

Ms

Kimbrough Ambulatory Care Center
2480 Llewellyn Avenue
Fort Meade, MD 20755
Commercial:
Fax: 
email: .army.mil -----Original Message-----
Would you please ensure that the Senior AMEDD leadership gets a copy of the information paper on botulism in Castleberry's Food Products?

would you please disseminate this info paper through the DLCS network?

would you please disseminate this additional info paper through the PM network?

Thanks.

Proponenty for Preventive Medicine
Office of the Surgeon General
DSN: 761
"venienti occurririte morbo"
The FDA issued a recall of various Castleberry brands of canned foods. There have been four cases of botulism reported to Centers for Disease Control and Prevention (CDC) from Indiana (2 cases) and Texas (2 cases). All four persons were reported to have consumed Castleberry’s brand Hot Dog Chili Sauce Original. Botulinum toxin was identified in leftover chili sauce from an unlabeled, sealable bag collected from a patient’s refrigerator. This product has been identified as being available through Defense Commissary Agency stores as well as other commercial outlets. However, ALL products have been removed from commissary shelving.

*Clostridium botulinum*, a bacteria form spores which produces toxins that cause botulism, a serious, but relatively rare intoxication. These organisms grow best in low oxygen conditions, such as in canned goods.

Classic symptoms of botulism include: double vision, blurred vision, drooping eyelids, slurred speech, difficulty swallowing, dry mouth, and muscle weakness. Infants with botulism appear lethargic, feed poorly, are constipated, and have a weak cry and poor muscle tone. If untreated, these symptoms may progress to cause paralysis of the arms, legs, trunk and respiratory muscles which can result in death. In foodborne botulism, symptoms generally begin 18 to 36 hours after eating a contaminated food, but they can occur as early as 6 hours or as late as 10 days. In the U.S., the case fatality rate is 5-10%.

Castleberry’s Food Company initiated a voluntarily recall. “FDA is expanding its July 18 warning to people not to eat the contents of certain cans of chili sauce due to the risk of botulism.”

Additional information can be found at the FDA website, [http://www.fda.gov/oc/opacom/hottopics/castleberry.html](http://www.fda.gov/oc/opacom/hottopics/castleberry.html), and at the CDC website, [http://www.cdc.gov/botulism/botulism.htm](http://www.cdc.gov/botulism/botulism.htm).
We received a phone call from Steve at channel 7, WJLA-TV, the ABC station in Washington. Mrs. [REDACTED] gave them the complete copy of the Infant Botulism report.

The reporter said that in the report it said that Children at Military Installations are more susceptible to infant botulism and would we like to comment on that.

I explained that I had read the executive summary and I had not read that in the report.

I referred him to [REDACTED] at CHPPM to talk about the report. (She is out. So basically I am just buying time until I can get some answers.)

I referred him to the executive report we have posted on the web site at www.ftmeade.army.mil <http://www.ftmeade.army.mil>
Hey dude: as always, GREAT to talk with you. Wordsmith as needed. According to "standdown", we're on 'standdown' for now, but it would be good to have something ready, just in case.

Some words to get us started in response to "The reporter said that in the report it said that Children at Military Installations are more susceptible to infant botulism and would we like to comment on that:"

No, we do not believe that children on military installations are more susceptible. There are several reasons why we say this:

1) The 2 cases at Fort Meade were rare events, and sometimes rare events happen close to one other. We do know that children in certain age groups are more susceptible to infant botulism, and that children on military installations are just as susceptible as other children of the same age.

2) In our report, we included all cases: Those that were confirmed by lab analysis, and unconfirmed dr's diagnoses because we wanted to be as transparent as possible and exclude nothing.

3) Differences in U.S., state, and military rates could be attributed to many factors, such as differences in doctor's diagnoses, surveillance capabilities, and abilities to access pertinent data systems.
We received a phone call from Steve at channel 7, WJLA-TV, the ABC station in Washington. Mrs. gave them the complete copy of the Infant Botulism report.

The reporter said that in the report it said that Children at Military Installations are more susceptible to infant botulism and would we like to comment on that.

I explained that I had read the executive summary and I had not read that in the report.

I referred him to at CHPPM to talk about the report. (She is out. So basically I am just buying time until I can get some answers.)

I referred him to the executive report we have posted on the web site at www.ftmeade.army.mil <http://www.ftmeade.army.mil>
Attached is the final PDF file for the Infant Botulism Technical Report. COL Petruccelli will be sending electrons to Ft. Meade personnel tomorrow with hard copies to follow.

Epidemiology and Disease Surveillance
DSN

Classification: UNCLASSIFIED
Caveats: NONE
MEMORANDUM FOR Commander, Fort George G. Meade, Building 4550 Parade Field Lane, Fort Meade, MD 20755

SUBJECT: Epidemiological Consultation No. 13-HG-06TU-07, Investigation of Two Intestinal Botulism Cases at Fort Meade, Maryland, October – December 2006

1. We are enclosing a copy of the subject report with an Executive Summary.

2. Direct inquiries regarding this report to MAJ., Director of Epidemiology and Disease Surveillance, at commercial or email to @us.army.mil.

FOR THE COMMANDER:

Encl

COL, MC

Epidemiology and Disease Surveillance

CF: (w/encl)
KACC (MXCR-PM)
U.S. Army Center for Health Promotion and Preventive Medicine

EPIDEMIOLOGICAL CONSULTATION NO. 13-HG-06TU-07
INVESTIGATION OF TWO INTESTINAL BOTULISM CASES
AT FORT MEADE, MARYLAND
OCTOBER - DECEMBER 2006

Distribution Limited to U.S. Government agencies and their contractors; protection of privileged information; Feb 07. Other requests for this document shall be referred to Commander, Fort George G. Meade, Building 4550 Parade Field Lane, Fort Meade, MD 20755

Readiness Thru Health
DESTRUCTION NOTICE – Destroy by any method that will prevent disclosure of contents or reconstruction of the document.
EXECUTIVE SUMMARY
EPIDEMIOLOGICAL CONSULTATION NO. 13-HG-06TU-07
INVESTIGATION OF TWO INTESTINAL BOTULISM CASES
AT FORT MEADE, MARYLAND
OCTOBER - DECEMBER 2006

1. PURPOSE. The purpose of this epidemiological consultation (EPICON) was to investigate a cluster of Clostridium botulinum (C. botulinum) in infants at Fort Meade, Maryland. The Kimbrough Ambulatory Care Center Commander at Fort Meade requested assistance from the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) after two infants living on the same street, approximately 116 meters apart, contracted intestinal botulism in October 2006 and December 2006, respectively.

2. BACKGROUND. Intestinal botulism, also known as infant botulism, is a rare but serious paralytic illness that almost always occurs in children under 1 year of age. On very rare occasions it can occur in older children and adults after bowel surgery, when people are affected with inflammatory bowel disease, or after antimicrobial therapy (Redbook 2006). Botulism is caused by a nerve toxin released by the bacterium C. botulinum, which can be found in soil and dust worldwide. Most cases of botulism affecting children older than 1 year of age and adults occur when spores germinate in improperly prepared foods, producing toxin that affects humans when the contaminated food is eaten. In contrast, cases of intestinal botulism are believed to occur when spores are ingested and are able to germinate within the intestines and produce toxin. It is believed that a permissive environment within the intestines in infants allows the bacteria to grow and produce toxin. In most intestinal botulism cases a source for the ingestion is never identified. In cases of intestinal botulism, toxin and bacteria may be found in stool specimens. Stool specimens collected from both of the Fort Meade infants tested positive for C. botulinum toxin type B. Type B toxin-producing C. botulinum is prevalent in the eastern United States (U.S.).

3. METHODS. The USACHPPM formed an EPICON team for this investigation. The team consulted subject matter experts from the Centers for Disease Control and Prevention (CDC), the California Department of Health Services (CDHS), the Maryland Department of Health and Mental Hygiene (DHMH), and the Anne Arundel County Department of Health. The CDHS was consulted because of its nationally renowned expertise in infant botulism. The team interviewed the affected infants' parents using a modified version of the CDC's infant botulism questionnaire. Stool specimens had been collected by the inpatient pediatric team at the Walter Reed Army Medical Center (WRAMC) and tested by the Maryland DHMH. C. botulinum has been isolated from both samples, and isolates will be sent to the CDC for sub typing.
EXSUM, Technical Report NO. 13-HG-06TU-09, Fort Meade MD, Jan 06

The EPICON personnel conducted town hall meetings with the Fort Meade Garrison Commander to address community concerns. Investigators also provided information sheets to local residents, provided press releases, and conducted media interviews.

4. CONCLUSIONS.

a. Interviews with each family revealed no common exposures that may have been a likely source of the outbreak, and no possible food sources. The risk communication effort was intensified due to the high level of community concern regarding transmission and environmental factors discussed in the interviews, such as nearby construction. This quelled the fears of most Fort Meade residents; however, a local newspaper reported that the parents of one of the affected infants plans to sue the Army, claiming there was negligence in seeking the cause of the two cases. They reportedly believe that dirt from a construction site one block away from the street where both families live is the source of the spores, that soil testing should have been undertaken, and that the Army is intentionally avoiding such sampling because Fort Meade is a Superfund site.

b. Proving or disproving a link with the environment is a dubious task given the lack of previous research in the area. It is widely believed that botulism type B is endemic to the soil in the area and over the entire East Coast of the U.S. Numerous discussions were held with leading C. botulinum experts, CDC representatives, and Maryland and Anne Arundel County public health officials about proceeding with environmental testing. The consensus of this group was that environmental testing would not prove or disprove a link between the cases and the environment. In addition, there are no known public health prevention strategies for non-foodborne C. botulinum. The Agency for Toxic Substances and Disease Registry does list Fort Meade on the National Priorities List, but their report indicates that the waste sites are far from the current location of the cases. Moreover, while prior dumping sites for waste and dead carcasses are theorized to be a viable source for C. botulinum, there has been no evidence to support this.

c. The scientific literature suggests numerous possible modes of ingestion of C. botulinum by infants which could be relevant to this investigation, but none of which are proven. The EPICON team could not find a link between the two cases at Fort Meade, other than the residential proximity itself. Much needs to be learned about the epidemiology of infant botulism and the EPICON team reached out to the leading scientists in this field. Possible collaborations for long-term environmental and laboratory research projects were discussed, as each discovered cluster of infections affords a possible opportunity to better elucidate non-foodborne modes of C. botulinum transmission.
5. RECOMMENDATIONS.

a. Make Military Health System (MHS) providers throughout the National Capital Region (NCR) aware of the two cases at Fort Meade in order to reinforce the need to seriously consider botulism in the differential diagnosis when evaluating infants with paralytic signs or significant constipation and when Sudden Infant Death Syndrome cases are encountered.

b. Reinforce the need for NCR clinic staff to communicate reportable medical events to both civilian and military public health authorities.

c. Encourage referral centers like WRAMC to engage preventive medicine personnel (both its own and those of pertinent installations) early in the course of such events.

d. Enhance Army epidemiologic surveillance for botulism cases.

e. Establish a DOD registry of dependent fatalities.

f. Improve centralized access to military clinical laboratory data.

g. Inform NCR beneficiary parents of newborns and infants about intestinal botulism as part of child health education.

h. Ensure construction contracts serving Fort Meade and other installations require control measures to minimize dispersion of fugitive dust.

i. Continue risk communication efforts on a scaled-down basis, monitor media coverage, and remain ready to respond to community rumors, misunderstandings and misperceptions in a timely manner.
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Paragraph</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. REFERENCES</td>
<td>1</td>
</tr>
<tr>
<td>2. PURPOSE</td>
<td>1</td>
</tr>
<tr>
<td>3. AUTHORITY</td>
<td>1</td>
</tr>
<tr>
<td>4. BACKGROUND</td>
<td>1</td>
</tr>
<tr>
<td>5. METHODS</td>
<td></td>
</tr>
<tr>
<td>6. FINDINGS/RESULTS</td>
<td></td>
</tr>
<tr>
<td>7. DISCUSSION/CONCLUSIONS</td>
<td></td>
</tr>
<tr>
<td>8. LIMITATIONS</td>
<td></td>
</tr>
<tr>
<td>9. RECOMMENDATIONS</td>
<td></td>
</tr>
<tr>
<td>10. POINT OF CONTACT</td>
<td></td>
</tr>
</tbody>
</table>

Appendices

A. REFERENCES ......................................................... A-1

B. *CLOSTRIDIUM BOTULINUM* QUESTIONNAIRE USED FOR INVESTIGATION ............................................. B-1

C. RISK COMMUNICATION PRODUCTS AND MEDIA RELEASES FOR *CLOSTRIDIUM BOTULINUM* INVESTIGATION .......... C-1

D. ARMED FORCES INSTITUTE OF PATHOLOGY (AFIP) PROPOSAL TO FUND DEVELOPMENT OF A DEPENDENT MORTALITY BASE ................................................................. D-1
1. REFERENCES. Appendix A contains the references used in this report.

2. PURPOSE. The purpose of this epidemiological consultation (EPICON) was to investigate Clostridium botulinum (C. botulinum) infection of two infants on Fort Meade, Maryland.

3. AUTHORITY. The U.S. Army Medical Department Activity (MEDDAC) Commander at Fort Meade requested assistance from the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) after two infants living on the same street, approximately 116 meters apart, contracted intestinal botulism in October 2006 and December 2006, respectively. In response to this request, the USACHPPM formed an EPICON team to perform an investigation.

4. BACKGROUND.
   
a. C. botulinum is an anaerobic spore-forming, rod-shaped bacterium that produces botulinum neurotoxin, the causative agent of botulism (reference 1). C. botulinum is known to produce seven distinct toxins including A, B, C1, D, E, F, and G. Release of these toxins at presynaptic nerve terminals causes paralysis (reference 2).

   b. Specific toxin types of C. botulinum are usually associated with specific geographic regions within the United States (U.S.). While both type A and B cases are seen in the western U.S., type A predominates west of the Rocky Mountains (reference 3). Type B has been isolated more frequently in cases in the eastern U.S., specifically Pennsylvania and New York. Toxin types C, D, and F are less defined to a specific region, but are typically isolated from animals rather than humans, and all three of these types are poorly absorbed by the human intestine, which is essential for inducing neurological symptoms associated with botulism. Fresh water and fish ingestion have been associated with outbreaks of botulism type E. These outbreaks have historically been limited to the Baltic, Alaskan, and the Great Lakes areas (reference 3).

   c. There are three major types of botulism found in humans: foodborne, wound, and intestinal (otherwise known as infant) botulism.
1. Foodborne botulism is typically caused by ingesting preformed toxin from improperly preserved food items. Wound botulism, similar to other wound infections, is caused by the bacteria embedding under subcutaneous skin or deep inside an open area on the body, where they then produce the toxin. Intestinal botulism, which was first reported in 1976 (reference 4), occurs almost exclusively in infants, with the range of affected ages being 1 to 63 weeks. The majority of all cases occur in infants under 6 months of age, with the average age of reported cases being 13 weeks (reference 5). Cases are thought to be caused by ingestion of *C. botulinum* spores that subsequently colonize the large intestine and produce botulinum neurotoxin (references 4 and 6).

2. While botulism cases occur throughout the world, the diagnosis of infant botulism is relatively uncommon in less developed countries (reference 7). There are numerous reasons for this trend, but perhaps the biggest is the amount of resources and testing required for a definitive diagnosis of infant botulism. *C. botulinum* in infants is the most commonly diagnosed type of botulinum intoxication in the U.S. (reference 6); despite this, only about 2 infant botulism cases are known to occur annually for every 100,000 live U.S. births (references 8 through 13). The case fatality rate for infant botulism in the U.S. is about 1.3 percent and less than 1 percent for hospitalized infants (reference 8). However, studies suggest that some cases of Sudden Infant Death Syndrome (SIDS), which affects more than 4,500 infants in the U.S. each year or approximately 50 infants per 100,000 live births, may be due to infant botulism (reference 9). Although the actual rate of fatal botulism falsely attributed to SIDS is unknown, studies analyzing infants who died from SIDS in the U.S. found botulism bacteria or toxin in up to 5 percent of examined SIDS cases (references 8, 9, 10, and 13). Some European studies have found higher rates (references 11 and 12).

d. Since infants cannot communicate symptoms, parental and provider awareness are keys to early diagnosis and treatment. Signs of infant botulism include: constipation, weakness (affecting gag, cry, sucking and swallow functioning), flaccid paralysis or "floppy baby syndrome," poor feeding, lethargy and hypotonia (reference 6). Prompt laboratory diagnosis is necessary to rule out other degenerative neuromuscular diseases. A test for toxin in the infant’s stool specimen is conducted to identify and type the toxin. A confirmatory test is conducted by culturing the fecal specimen to isolate *C. botulinum*. However, typical infant botulism laboratory analysis stops at this step. Laboratory subtyping from clinical isolates are not usually done, but are part of broader research in the few laboratories equipped to do such testing.

e. Historically, there has not been a treatment protocol for infant botulism with the exception of treating specific symptoms. However, in 2003, the Food and Drug Administration approved Botulism Immune Globulin Intravenous (Human) (BabyBIG) for treatment of infant botulism cases with toxin A or B. This treatment consists of botulism antitoxin antibodies that are derived from humans (reference 14).
f. Commonly known vectors such as honey or syrup have been shown to be the source of several infant botulism cases. However, these risk factors can only be demonstrated in 10 percent of all infant botulism cases (reference 15). Recent research suggests that spores of the toxin-forming agent may be introduced by ingesting environmental materials such as dust or soil. Given that *Clostridium botulinum* is ubiquitous in soils around the world, ingested dust and soil are thought to be likely culprits of infant botulism (reference 15).

g. In late 2006, two cases of infant botulism type B were identified among Department of Defense (DOD) beneficiaries hospitalized at the Walter Reed Army Medical Center (WRAMC). The cases occurred approximately 3 months apart and the infants involved lived in the same residential area in Fort Meade, Maryland, approximately 116 meters apart. The proximity of the cases increased community concern and sparked the investigation summarized in this EPICON.

h. While the incidence of *C. botulinum* infection among infants is rare, it is not unprecedented to have clustering of cases. A review of literature reveals numerous infant botulism clusters that have been investigated (references 16 through 18). More recently, a new unpublished report indicated a cluster of infant botulism types A and B at Vandenberg Air Force Base in southern California. Like the cases presented in this report, there were two cases of confirmed infant botulism among base residents within 3 months of onset. Foodborne transmission for both cases was ruled out, and investigators concluded that the disease was contracted through ingestion of soil or dust which may naturally contain spores.

5. METHODS.

a. EPICON Team. Principal team members from the USACHPPM included two preventive medicine physicians, three epidemiologists (including one with environmental health expertise), and one risk communication specialist. This team worked with preventive medicine personnel at Fort Meade, medical epidemiologists from the Anne Arundel County Department of Health and the Maryland Department of Health and Mental Hygiene (DHMH), and public affairs professionals from these various organizations. The EPICON personnel and their civilian public health partners also conducted telephonic conferencing with a team of *C. botulinum* experts from the Centers for Disease Control and Prevention (CDC) and the California Department of Health Services (CDHS). Additionally, military medical and laboratory surveillance agencies for all service branches were consulted to identify and confirm additional cases. These agencies included the Army Medical Surveillance Activity (AMSA), the Navy Environmental Health Center (NEHC), the Air Force Institute of Operational Health (AFIOH), and the Armed Forces Medical Examiner.
b. **Case Interviews.**

(1) A modified investigation form (appendix B) was developed using the CDC's standard infant botulism form (A Guide to Investigation of Infant Botulism, CDC 52.73 REV. 9-87) and a standardized questionnaire from the New York City Department of Health and Mental Hygiene. The form was designed to be more specific for military families regarding factors such as residence, potential exposures in the military, and housing. Information collected included demographics, onset dates, clinical presentation, food history, travel history, and exposures to known or suspected botulism sources.

(2) A team of four conducted the interviews with the parents of each case. Questions were asked by one person to remove question bias from the interview. Questions were asked in the same order for each case, and responses were recorded by all four team members. Each interview lasted for approximately 1 hour. After the interviews, responses to each question were typed by one member of the team and reviewed by the other three members for accuracy. Afterwards, the entire EPICON team reviewed the responses for commonalities between the two cases and possible exposure links.

c. **Case Finding and Surveillance.**

(1) The Army Medical Surveillance Activity operates a longitudinal epidemiological database called the Defense Medical Surveillance System (DMSS), which contains healthcare encounter data and demographics of all US military personnel and other beneficiaries, and which is also the central repository for DOD Reportable Medical Events (RMES). The MHS Mart (M2) also contains healthcare encounter and demographic data. Both DMSS and M2 were queried to identify infant botulism cases diagnosed among military health system beneficiaries from calendar year (CY) 2002 through CY 2006. The inpatient queries were structured to identify any hospital admissions of infants under 1 year of age who were diagnosed with a primary or secondary diagnosis of infant botulism or which were reported through the RMES. If beneficiaries sought care at civilian facilities, these encounters were captured only if a billing claim was processed through TRICARE, the military health insurer. All data were consolidated into one case file which was then limited to unique cases. For each probable case identified through record review, AMSA, NEHC, and AFIOH were consulted to determine if the cases had confirmatory laboratory results. Because DOD laboratory records are not readily accessible prior to July 2006 and testing may also occur outside the DOD, confirmation was only available for cases reported through the RMES reports. The Defense Enrollment Eligibility Reporting System (DEERS) was then queried to determine live births among DOD active duty beneficiaries for CY 2003 through CY 2006; CY 2002 DEERS data were not available within M2.
e. Provider Education. MHS providers throughout the NCR were made aware of the two cases from Fort Meade as a means of reinforcing the need to seriously consider botulism when evaluating infants being seen because of paralytic signs or significant constipation, and when SIDS cases are encountered. Providers and clinic staff also received a reinforcing message about the need to communicate reportable medical events to both civilian and military public health authorities.

f. Risk Communication.

(1) From the beginning, Fort Meade’s response focused on educating healthcare providers and the local community about the issue and on direct interaction with the affected families and other Fort Meade residents where the two affected infants lived. Kimbrough Ambulatory Care Center (KACC) notified all military healthcare providers in the NCR of the existence of the two cases and symptoms commonly associated with the disease. The Fort Meade Garrison Commander and KACC staff also immediately teamed up to personally visit both infants’ families to identify unmet needs and to hand deliver risk communication products to the remaining residents. Risk communication products were also distributed to on-post child development centers, the media, and eventually to in-home childcare providers when that gap was identified. Risk communication products and media releases are in appendix C.

(2) Risk communication efforts regarding this issue incorporated several key risk communication principles—

(a) Discussing the bad news first and in a timely manner.

(b) Contacting the affected families and area residents in person.

(c) Identifying and using consistent spokespersons.

(d) Aligning response efforts with nonmilitary experts on infant botulism (that is, county and state health departments, the CDC, and the State of California where most infant botulism cases in the U.S. have occurred) to ensure that actions taken or proposed were scientifically valid.
(2) The Maryland DHMH was also consulted to identify cases reported in the state of Maryland and also specifically within Anne Arundel County, where Fort Meade is located.

(3) The EPICON team also consulted with the Office of the Armed Forces Medical Examiner (OAFME), the Baltimore Medical Examiner’s Office, and the Maryland DHMH to gather information regarding fatalities classified as either SIDS or infant botulism.

d. **Environmental Analysis.** Sampling of environmental sources for *C. botulinum* type B was strongly considered by all parties involved in the investigation. After consulting with experts in the field, it was determined that environmental sampling would not add to this investigation and thus it was not conducted. However, collaboration with, and submission of environmental samples to, the Infant Botulism Treatment and Prevention Program in California was offered as part of long-term research and may occur in the future. In addition, a layout of the immediate construction sites and the cases’ residences was developed using a measuring wheel for distances. Distances were measured and marked for the residences, playground, football field, and possible construction site. Figure 1 shows this layout. Prior land use was also thoroughly researched for any possible botulinum contamination or biological use that may induce growth of *C. botulinum*.

![Figure 1. Layout of Case-Patient Residences and Possible Soil or Dust Exposures](image-url)
6. FINDINGS/RESULTS.
   
a. Interviews and Clinical Case Summaries.

(1) Case 1.
Case 2.

(b) The interview for case 2 also took place on 12 January 2007.
b. Epidemiology.

(1) Fewer than 100 cases of laboratory-confirmed infant botulism have been identified each year within the U.S., which equates to a rate of about 2 cases per 100,000 live births (reference 19). Review of public health reports revealed that a total of 16 laboratory-confirmed cases of infant botulism (primarily type B) were reported in the State of Maryland from 1976 through 1996 (reference 5). The Anne Arundel County Department of Health, whose district includes Fort Meade, was consulted to identify additional cases reported in the state of Maryland since 1996. They had documented 30 laboratory-confirmed cases during this time frame, bringing the cumulative 30-year total to 46 cases. Case reports were sporadic, ranging from 0 to 6 cases reported per year. The 2005 incidence rate was 6.7 cases per 100,000 live births (reference 20). Table 1 shows U.S., Maryland, and Anne Arundel County case reports from calendar years 2002 through 2006.

Table 1. Laboratory-Confirmed Infant Botulism Cases, CY 2002–CY 2006

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>National¹</td>
<td>69</td>
<td>76</td>
<td>87</td>
<td>85</td>
<td>88</td>
</tr>
<tr>
<td>Maryland²</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Anne Arundel County²</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

²Maryland and Anne Arundel County figures provided by the Anne Arundel County Department of Health.

(2) Table 2 provides information regarding cases of infant botulism diagnosed among MHS beneficiaries from 2002 through 2006. During the 5 calendar year period evaluated, approximately 85,000 to 105,000 live births were documented annually among DOD active duty beneficiaries. A total of 16 unique cases of infant botulism were identified during this period. A total of 2 probable cases were diagnosed in 2002, 3 occurred in 2003, 2 in 2004, 1 in 2005, and 8 in 2006, representing 2003 through 2006 annual rates of 3.5 cases, 3 cases, 1 case, and 8.6 cases per 100,000 live births, respectively. (Denominator data were not available for CY 2002 from M2 due to limitations with the M2 interface used to query the DEERS system; therefore, rates could not be generated prior to CY2003.) All cases were under 6 months of age, and there
was not a male or female predominance. The majority (71 percent) of cases were from the West Coast or the Great Plains region. These findings are consistent with the literature (references 1, 6, 16, and 22). Of the 16 cases identified, only 6 were laboratory-confirmed based on RME reports.

Table 2. Infant Botulism Among DOD Active-Duty Beneficiaries, CY 2002–CY 2006

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Probable cases*</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Laboratory-confirmed cases</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Total live births</td>
<td>NA</td>
<td>85,531</td>
<td>101,522</td>
<td>104,356</td>
<td>92,551</td>
</tr>
<tr>
<td>Age (months):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Gender:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Male</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Sponsor Service:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Army</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Air Force</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Navy</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Marines</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>State:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arizona</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>California</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Georgia</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Kansas</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Maryland</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>New York</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>North Carolina</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Utah</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Texas</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Washington</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Quarter hospitalized:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1&quot;</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2&quot;</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>3&quot;</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>4&quot;</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

*Probable cases are cases with clinical presentation, lacking confirmatory laboratory tests; cases were identified through International Classification of Diseases, Ninth Revision (ICD-9) diagnosis codes entered into the patient's electronic medical record during hospitalization (reference 23).
(3) In the process of reviewing case medical records, a similar clustering of cases as that observed at Fort Meade was detected in 2006 at Vandenberg Air Force Base in southern California. Two infants living in military housing on the same base were diagnosed within 3 months of each other, the first case being diagnosed in March 2006 and the second in May 2006. Case 1 was determined to be botulinum type B and the second was type A. Preventive medicine personnel questioned stated that the cases resided within 2 miles of each other. They were able to rule out the possibility of the cases being foodborne, but could not identify any epidemiologic links between the two cases. They consulted with the CDHS and concluded that the cases were probably acquired by ingestion of spores which occurred naturally in the environment, and noted nearby construction at a service station.

(4) Further review of public documents regarding infant mortality revealed that within the State of Maryland approximately 50 SIDS cases are reported each year while mortality due to infant botulism has not been documented in the state (reference 24). The Baltimore Medical Examiner's Office further stated that because SIDS is considered a cause of death, the Medical Examiner does not test victims for potential underlying causes such as infant botulism. Interviews with the OAFME revealed that the organization has no visibility in regard to continental U.S. (CONUS) dependent fatalities due to DOD casualty operations policy. Furthermore, because the State of Maryland annual reports do not distinguish between deaths among military members versus civilians it was not possible to determine if any SIDS cases were among military beneficiaries.

c. Risk Communication. Because of the high level of community concern associated with this issue, risk communication efforts by Fort Meade and the investigators were critical in the overall response. Target audiences included the Fort Meade residential and childcare communities because of their heightened concerns and local military and civilian healthcare providers to ensure increased vigilance.

(1) Risk communication efforts involved education through information sheets, weekly updates, links to non-military resources, video/audio files of media interviews, personal outreach by the Fort Meade MEDDAC Commander and KACC, and town hall meetings to answer questions and discuss lingering concerns. Collaboration with nonmilitary experts likely assisted in addressing community concerns due to their neutrality about the proposed investigative approach. Media interest was intense and extended well beyond the local area.

(2) Several media interviews were conducted by the Fort Meade Garrison Commander, the EPICON team leader, and the KACC Chief of Preventive Medicine, to include those with National Public Radio (NPR), The Baltimore Sun, and the Washington D.C. affiliates of ABC and CBS television networks.
d. **Laboratory Testing.** Initial laboratory testing for both cases was performed by the Maryland DHMH Public Health Laboratory.

e. **Mapping.** Mapping of the area demonstrated that the residences of case 1 and case 2 were approximately 116 meters apart. Case 1 was slightly downhill of the playground, which in turn was slightly uphill of the dirt mound. The dirt mound was about 238 meters from case 1. Case 2 was much closer to this dirt mound (~150 meters) and was slightly uphill from it. (See figure 1).

f. **Environmental Testing.** Due to parental concern expressed to the media in reference to hazardous waste “Superfund” sites on Fort Meade, the EPICON team explored historical records regarding land use at Fort Meade. Fort Meade was listed on the Environmental Protection Agency’s National Priorities List of hazardous waste sites on 22 July 1998 (reference 25). Due to this, the EPICON team researched the history of the site near residences where the cases occurred to identify any possible prior use, such as use for relocation/management of waste. The 1999 Agency for Toxic Substances and Disease Registry (ATSDR) public health assessment on Fort Meade (reference 25) and the 1989 U.S. Army Environmental Hygiene Agency’s evaluation of solid waste management on Fort Meade (reference 26) listed numerous waste sites, including chemical containments and landfill sites (references 25 and 26). No waste sites were identified in the immediate area of residence for the cases.

7. **DISCUSSION/CONCLUSIONS.**

a. **Investigation.**

(1) The epidemiology of infant botulism is not well understood. Its rare occurrence, and the inability of epidemiologists to identify the source of causative bacterial spores in non-foodborne cases, significantly limits any effort to prove or disprove links among cases. Although risk factors for infant botulism have been well studied, investigations are often inconclusive, and specific biological physiologies for developing infections are less well described. Spika et al identified several possible risk factors for infant botulism, including living in a rural area, breast-feeding infants over 2 months of age, less than one bowel movement per day for at least 2 months, and ingestion of corn syrup (references 1, 22, and 27). Other studies suggest hospitalized infant botulism cases tend to have higher birth weights and to be born to mothers that tend to be white, older and better educated (reference 5). Breast-feeding is more common in cases (references 17 and 28) and is associated with later onset in type B cases (reference 28). The rarity of infant botulism further complicates diagnosis, treatment, and prevention efforts for clinicians, microbiologists and epidemiologists.
(2) Upon initial review, there was concern that the two cases were linked in some way and that other infants in the community could be at risk. Thus, a thorough consultation was conducted to investigate all known risk factors for infant botulism. Both families shopped for groceries at the same commissary, as do most other families who live on Fort Meade. Still, foodborne agents were quickly ruled out due to the fact that the affected infants did not consume any food from a common source. In fact, case 1 was breast-fed almost exclusively, while case 2 was fed supplement. Known food risk factors such as honey and corn syrup were never used in either case. After ruling out common food agents, the investigation then looked for common exposures such as public gatherings, churches, day care facilities, and parents’ occupational exposures. Each of the parents work in a different setting, and none of the four came into contact with each other during the course of their work. Furthermore, neither of the families shared the same church or public places. The families had no known contact with each other prior to onset of the cases. Thus, transmission is unlikely to have occurred in a child care setting or any other public location. In addition, the cases emerged three months apart and the families were not known associates, thus person-to-person transmission is highly unlikely, especially given that person-to-person transmission has never been documented.

(3) The investigation then turned to environmental exposures. Proving or disproving a link with the environment is a dubious task given the lack of previous research in the area. Several studies have indicated that *C. botulinum* is endemic to many parts of the world and ultimately resides in the soil (references 1, 7, 15, 16, and 22). In particular, it is widely believed that botulism type B is endemic to the soil in the area and over the entire East Coast of the U.S. Numerous discussions were held with leading *C. botulinum* experts, CDC representatives, and Maryland and Anne Arundel County public health officials about proceeding with environmental testing. The consensus of this group was that environmental testing would not prove or disprove a link between the cases and the environment. In addition, there are no known public health prevention strategies for non-foodborne *C. botulinum*. Reasons for this decision were: little is known about the diversity of the organism (that is, no library to compare with), the ability of laboratory methods to discriminate among *C. botulinum* subtypes (reference 29) is limited; laboratory capacity is limited; and finally, due to the ubiquitous and dispersed nature of the organism, the probability of collecting the exact soil sample containing the causal agent is miniscule.

(4) It is interesting to note that one group of researchers in this field found an apparent “cluster” of *C. botulinum* strains that were identified by Pulsed-Field Gel Electrophoresis (PFGE) approach as being more than 90 percent similar. However, the isolates were from different types of materials from two different continents and were collected over an extended period of time (reference 29). These results highlight the limitations to current laboratory methods in linking cases in a suspected cluster. Current efforts are underway in California to develop a *C. botulinum* library of genetic material that may one day be utilized for PFGE or
Amplified Fragment Length Polymorphism in matching human-linked strains of the organism with environmental samples. However, this library is not yet complete. Therefore, the only results of environmental testing would be to confirm that *C. botulinum*, if isolated, is present in the environment. As Istre et al. indicated, there are probably several environmental factors that aid in the ingestion of *C. botulinum*; however, until the technology and knowledge advances, we cannot determine what those factors may be (reference 16).

(5) The ASTDR does list Fort Meade on the National Priorities List, but their report indicates that the waste sites are far from the current location of the cases. Moreover, while prior dumping sites for waste and dead carcasses are theorized to be viable sources for *C. botulinum*, there has been no evidence to support this.

(6) After review of all the research and data, it is clear that there are numerous modes of ingestion of *C. botulinum* by infants that are not well demonstrated in the literature. The EPICON team cannot find a link between the two cases at Fort Meade other than geographic proximity. The most likely source of infection was airborne dust particles that directly entered, or were carried into, the mouths of these infants. Based on prior work by experts investigating pairs or clusters of intestinal botulism cases, there is no sampling technique that has proven useful for narrowing down reservoirs of soil where the specific, infecting spores originate. Much needs to be learned about the epidemiology of infant botulism, and the EPICON team reached out to the leading scientists in this field. Possible collaborations for long-term environmental and laboratory research projects were discussed, as each discovered cluster of infections affords a possible opportunity to better elucidate non-foodborne modes of *C. botulinum* transmission.

b. Risk Communication.

(1) According to the National Research Council, risk communication is defined as "an interactive process of exchange of information and opinion among individuals, groups, and institutions" (reference 30). The interactive element of risk communication, along with clear messages, is necessary in order for both experts and nonexperts to develop a mutual understanding of interests, values and concerns that go far beyond one-way information sharing.

(2) While treatable, infant botulism can cause significant anxiety and panic not only for the affected families but also within the local population because it—

(a) Afflicts only very young helpless children (typically less than 1 year old).

(b) Occurs in an apparently random fashion without a means to predict or prevent exposure.
EPICON No. 13-HG-06TU-07, Fort Meade MD, Jan 07

(c) Has no discernible cause due to its ubiquitous nature in the environment.

(d) Elicits dread and fear just by its very name, “botulism.”

(3) When community concerns and media interest are high, risk communication efforts are critical in the overall response. Aggressive health information efforts (that is, fact sheets, press releases, etc.) are needed to increase awareness of the disease, its symptoms, and response actions. At the same time, technical knowledge is not always the dominant influence when concerns are high (and trust is low or unknown). Dialogue opportunities with experts and healthcare providers are important to answer questions and discuss lingering concerns.

8. LIMITATIONS.

a. The consultation is limited by several factors. The first is that there was a very small number of cases (n=2). Thus, neither a case-control study nor a cohort study was feasible. Secondly, the classification of *C. botulinum* as a select agent limits laboratory options due to special facility requirements and handling restrictions. In addition, several laboratories were contacted about conducting subtyping for the two specimens and, after much internal discussion, the botulism laboratory at CDC agreed to take the samples but with the stipulation that the results would only benefit future knowledge of the organism and would not be valid for this investigation.

b. The lack of a central source for identifying and tracking mortality among dependents of active-duty service members within the DOD is also problematic. Although establishment of centralized databases to monitor unexplained child deaths was formally recommended by the American Academy of Pediatrics in 1999, actions have not been undertaken within the DOD to allow this capability. Creation of a mortality registry for dependents would allow determination of baseline mortality risk from all causes, thereby enabling the study of epidemiological patterns of these deaths and focused prevention strategies to reduce the incidence of death in the spouses and children of service members. The OAFME/AFIP submitted a proposal for this type of surveillance (appendix D), but it has not received funding.

c. By including all hospitalizations and outpatient encounters, DOD surveillance systems have the potential to permit calculating incidence more completely than reportable disease mechanisms, since some underreporting is typical of passive surveillance in both civilian and military sectors. Currently, however, the results codes vary across laboratories—and many botulism-related tests, in particular, are outsourced—making analysis complex and unreliable. Therefore, comparison of rates among DOD beneficiaries to national rates may either underestimate or overestimate actual differences.
9. RECOMMENDATIONS.

a. The EPICON team recommends that—

(1) Military Health System providers throughout the NCR continue to be made aware of the two cases at Fort Meade in order to reinforce the need to seriously consider botulism in the differential diagnosis when evaluating infants with paralytic signs or significant constipation, and when SIDS cases are encountered.

(2) The NCR providers and clinic staff receive a message reinforcing the need to communicate reportable medical events to both civilian public health and military preventive medicine authorities.

(3) The NCR beneficiaries who are parents of newborns and infants be informed about intestinal botulism as part of child health education.

(4) Referral centers like WRAMC be encouraged to engage preventive medicine personnel (both its own and those of pertinent installations) early in the course of such events.

(4) Army epidemiologists enhance surveillance for botulism cases and other RMEs.

(5) DOD establish a registry of dependent fatalities through the OAFME (appendix D).

(6) Access to laboratory results by AMSA (future Armed Forces Health Surveillance Center) be improved to enhance ongoing surveillance activities.

(7) NCR beneficiary parents of newborns and infants be informed about intestinal botulism as part of child health education.

(8) Construction contracts serving Fort Meade and other installations require control measures to minimize dispersion of fugitive dust (reference 31).

b. Although public interest is not as elevated as it was initially, some questions do linger within the community. Therefore, risk communication efforts should continue on a scaled-down basis. Monitoring of media coverage should continue, and the installation commander should remain prepared to respond to community rumors, misunderstandings and misperceptions in a timely manner.

c. Because new information regarding infant botulism and this investigation is limited, it is recommended that the conclusions of the EPICON be released in order to meet community expectations. While education of the community was a key component of the risk
communication process, particularly during the initial response phase, this interactive component of risk communication is still crucial and should be continued to—

(1) Gauge how widespread concerns may be.

(2) Obtain empirical data from the community regarding how they view the command’s response.

(3) Identify any lingering misperceptions or misunderstandings about this issue and verify that risk communication education efforts were effective.

(4) Identify the most preferred communication venues.

(5) Identify the most trusted sources of information on this issue.

(6) Further demonstrate the command’s commitment to community well-being.

10. POINT OF CONTACT. Direct inquiries regarding this report to [redacted] Directorate of Epidemiology and Disease Surveillance, at commercial DSN [redacted] or email to [redacted][us.army.mil].

Approved:

[Signature]

MAJ, MS
Disease Epidemiology

COL, MC
Epidemiology and Disease Surveillance
APPENDIX A

REFERENCES

Literature Cited


Other Publications


Centers for Disease Control and Prevention Form 52.73, Guide to Investigation of Infant Botulism

APPENDIX B

CLOSTRIDIUM BOTULINUM QUESTIONNAIRE USED FOR INVESTIGATION
Hypothesis Generating Questionnaire (Infant Botulism)

(Modified January 2007 from a questionnaire from the New York City Department of Health and Mental Hygiene and CDC Form 52.73, Guide to Investigation of Infant Botulism)

Initials of interviewer _____

Date form completed: ____/____/

DEMOGRAPHIC INFORMATION OF THE CASE

Parent's last name: ___________________________ Parent's first name: ___________________________

Infant's last name: ___________________________ Infant's first name: ___________________________

Home address: ____________________________________________

Phone: ( ) —_______

Sex:  □ Male  □ Female  Race/Ethnicity:  □ White, not Hispanic  □ Black, not Hispanic

□ Hispanic  □ Asian or Pacific Islander  □ American Indian or Alaska native  □ Unknown

Mother's Age:  Father's Age:

Mother's Occupation:  Father's Occupation:

Number of Pregnancies:  Number of Live Births:

Type of Delivery (cases only):  □ Vaginal  □ C-Section

Complications:  □ Yes  □ No  If yes, please explain: _____________________________________________

Was infant premature?  □ Yes  □ No  □ Unknown  If yes, gestational age (weeks) _______

What was infant's birth weight ____________________________

1. Where was your child born?  □ Hospital  □ Other ____________________________

Hospital Name: ____________________________

Age at discharge from hospitals? _____

Was your child premature?  □ Yes  □ No  □ DK

2. Where do you usually take your child for medical problems or for well baby visits?

□ Pediatrician  □ Family/gen practitioner  □ Nurse practitioner or PA

□ ER  □ Other (Please specify_____________________________)

B-2
3. Before your child's illness from botulism began, did he/she see a physician for any other medical problems (not including well-child visits or visits for immunizations)?  

☐ Yes ☐ No ☐ DK

4. Did your child receive antibiotics in the month prior to illness onset?  

☐ Yes ☐ No ☐ DK

5. What was your infant's usual bowel movement pattern during the following months of life?  

<table>
<thead>
<tr>
<th>Month</th>
<th>≥ 1 BM/day</th>
<th>1 &gt; BM ≤ 3/day</th>
<th>&lt; 1/3 days</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st month</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd month</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd month</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th month</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When we first interviewed you about your child's illness, you reported that he/she first appeared sick on ___/___/___ (onset date). Is this the correct date?  

☐ Yes ☐ No ☐ DK

I. Food/Liquid Exposures

6. Prior to your child's illness on ___/___/___ (onset date), was your child being breast-fed?  

☐ Yes ☐ No ☐ DK

If yes, how many times per day do you breastfeed? ___

7. Prior to your child's illness on ___/___/___ (onset date), was your child being bottle fed?  

☐ Yes ☐ No ☐ DK

Do you use expressed breast milk to bottle feed?  

☐ Yes ☐ No ☐ DK

Do you use formula to bottle feed?  

☐ Yes ☐ No ☐ DK

Which formula did you primarily use?  

Please specify other brands of formula that you used. (List all brands used)

What type of formula do you usually use? Did you use...  

a. Liquid (ready to serve)  

☐ Yes ☐ No ☐ DK

b. Liquid (conc. add water)  

☐ Yes ☐ No ☐ DK

c. Powdered  

☐ Yes ☐ No ☐ DK

Who usually prepared the formula?  

Name: __________________________
Relationship to the child: ________________________________

If water was used, what was the source of the water? ________________________________

If tap water, was it boiled or filtered? □ Yes □ No □ DK

How many bottle feedings per day? ______

8. Prior to your child's illness, did he/she eat any baby cereal? □ Yes □ No □ DK
   Please specify type and brand (rice, oatmeal, etc.). ________________________________

9. Did your child eat jars, bottles, or cans of baby food? □ Yes □ No □ DK
   Please specify type and brand____________________________________________________

10. Did your child eat any baby food that was prepared at home? □ Yes □ No □ DK
    Please specify how it was prepared______________________________________________

11. Did your child eat any home-canned foods? □ Yes □ No □ DK

12. Did anyone in your family eat any home-canned foods? □ Yes □ No □ DK

13. Did your child drink any regular cow's milk (pasteurized)? □ Yes □ No □ DK

14. Did your child drink any unpasteurized milk? □ Yes □ No □ DK

15. Did your child eat or drink any honey? □ Yes □ No □ DK

16. Did your child eat any corn syrup? □ Yes □ No □ DK

17. Did your child drink any sugar/water? □ Yes □ No □ DK

18. Did your child drink any fruit juices? □ Yes □ No □ DK

19. Did your child drink any unpasteurized fruit juices? □ Yes □ No □ DK

20. Did your child eat any meats? □ Yes □ No □ DK

21. Did your child eat any fish? □ Yes □ No □ DK

22. Did your child drink tea? □ Yes □ No □ DK
Was it sweetened? □ Yes □ No □ DK

23. Did your child receive any supplemental vitamins in the month before the illness began?
□ Yes □ No □ DK
If yes, please specify ____________________________
Did they contain iron? □ Yes □ No □ DK

24. Did your child eat any fresh produce (fruits or vegetables) that were organically grown?
□ Yes □ No □ DK
If yes, please specify which fruits and vegetables were organically grown__________________________

25. Does anyone in your family eat any fresh produce (fruits or vegetables) that is organically grown?
□ Yes □ No □ DK
If yes, please specify which fruits and vegetables were organically grown__________________________

26. Do you shop at any Farmer’s Markets?
□ Yes □ No □ DK
If yes, please specify ____________________________

27. Where do you shop for groceries? ____________________________

28. Where do you shop for baby food and other baby items? ____________________________

II. Environmental exposures
29. Was there any of the following during the month before your child’s onset near your home:
□ construction (e.g. new home or other building)
□ excessive dust (e.g. sewers, new foundations)
□ excavation
□ new road construction
□ plowing of fields
EPICON No. 13-HG-06TU-07, Fort Meade MD, Jan 06

☐ environmental change (e.g. remodeling of your home, landscaping)
   If yes, describe______________________________

30. Was there any of the following during the month before your child’s onset at other sites where your child has been:
   ☐ construction (e.g. new home or other building)
   ☐ excessive dust (e.g. sewers, new foundations)
   ☐ excavation
   ☐ new road construction
   ☐ plowing of fields
   ☐ environmental change (e.g. remodeling of your home, landscaping)
   If yes, describe______________________________

31. Did your child or anyone else in your family play in a sandbox prior to illness?
   ☐ Yes ☐ No ☐ DK
   If so, where? (list)

32. How often is the furniture in your house dusted?
   ☐ more than once per week
   ☐ once a week
   ☐ less than once per week but at least every two weeks
   ☐ less than every two weeks
   ☐ other (please specify______________________________)
   ☐ unknown/refused

33. Do you have any carpets or area rugs covering the floor in your house? ☐ Yes ☐ No ☐ DK
   If yes, are they
   ☐ wall to wall carpets
   ☐ area rugs
   ☐ both wall to wall and area rugs
   What is the pile of wall to wall carpeting, (low, med, or shag)?______________________________

34. How often are your floors and carpets vacuumed?
   ☐ more than once per week
   ☐ once a week
   ☐ less than once per week but at least every two weeks
   ☐ less than every two weeks
35. What type of heating system do you have in your home?
- forced air (e.g. gas, oil, electric)
- steam heat (radiators)
- circulating hot water (e.g. solar, oil, gas)
- electric
- other (please specify)

36. Does your home have air conditioning?
- Yes
- No
- DK
If yes, please specify if individual room unit or central air conditioning________________________

37. Do you have any electric air cleaner in your home?
- Yes
- No
- DK
If yes, please specify if central or portable________________________

38. Were you or anyone in your household or family involved in gardening or yard work prior to your child's illness onset?
- Yes
- No
- DK
If yes, please specify flower or vegetable.
How often do you or household/family member garden?________________________
Which months of the year do you garden?________________________

39. Do you have any plants inside your house?
If yes, are they (check all that apply)
- located on or within 1 foot of the floor
- located on tables
- hanging from the ceiling
Are there any plants in the baby's room?
- Yes
- No
- DK

40. Do you take your child for walks outside?
- Yes
- No
- DK
Where do you usually go for walks________________________
Do you go to any nearby parks?
- Yes
- No
- DK
If yes, please specify________________________
41. Does your child play or lie on the ground outside? □ Yes □ No □ DK
   Please specify in backyard, park, etc._

42. Are you a member of any social or religious organizations? □ Yes □ No □ DK
   If yes, please specify
   Did you take your child to any events? □ Yes □ No □ DK
   Was your child at an associated daycare during any of these events?
   If yes, where/when?

43. Is your child in school/daycare or does he/she participate in any other group activities?
   □ Yes □ No □ DK
   If yes, please provide names and locations
   Describe “other group activities”

44. Did your child travel outside of Ft. Meade at all prior to his/her illness? □ Yes □ No □ DK
   If yes, please specify where?

45. Did your child travel outside of Maryland prior to his/her illness? □ Yes □ No □ DK
   If yes, please specify location, length of stay, and nature of visit

46. Did you visit a live poultry or meat market? □ Yes □ No □ DK
   If yes, did you purchase any poultry or meat?
   Specify type of meat purchased:
   Name of market:
   Address of market:
   Did you take your child to the live market? □ Yes □ No □ DK

47. Did you take your child to any large gatherings prior to illness (wedding reception, parties, festivals, fairs, religious gatherings, etc.) □ Yes □ No □ DK
   If yes, please specify

48. Did your child swim/wade/splash in an ocean, lake, river, pool, or recreational water park in the before his/her illness onset? □ Yes □ No □ DK
   If yes, please specify

49. Did your child come into contact with any animals in the prior to illness? □ Yes □ No □ DK
If yes, what kind of animals? 

When? Where?

50. Where did you buy/obtain your baby's crib?

Was the crib used or new? □ Yes □ No □ DK
Was the mattress used or new? □ Yes □ No □ DK

51. Does your child share toys with anyone? □ Yes □ No □ DK

If yes, please specify

52. How often do you sterilize bottles before using them? □ Always □ Sometimes □ Never

53. How often do you sterilize nipples before using them? □ Always □ Sometimes □ Never

54. Does your child use a pacifier? □ Yes □ No □ DK

Where were pacifiers purchased?

How often do you clean the pacifier?

If the pacifier falls on the floor:

How often do you clean with water? □ Always □ Sometimes □ Never
How often do you clean with soap? □ Always □ Sometimes □ Never
How often do you sterilize? □ Always □ Sometimes □ Never

55. Who is your child's pediatrician?

Pediatrician's name: 

Clinic name: 

Address: 

Phone number: ( ) 

56. Do you know anyone other infants who have had a similar illness as your child's?

□ Yes □ No □ DK

If yes, please specify

Additional comments

Thank you very much for your time.
APPENDIX C

RISK COMMUNICATION PRODUCTS AND MEDIA RELEASES FOR BOTULISM INVESTIGATION
FOR IMMEDIATE RELEASE

Infant Botulism Found in Two Children at Fort Meade

FORT GEORGE G. MEADE, Md., - Since October 2006, Walter Reed Army Medical Center (WRAMC) has identified two cases of infant botulism involving residents of Fort Meade. One infant has recovered while the other infant is being treated by doctors at WRAMC. Both children were under six months of age at the time of diagnosis.

The cause is currently under investigation by the Preventive Medicine Services on Kimbrough Ambulatory Care Center (KACC).

"Infant botulism is a treatable condition associated with the ingestion of clostridium botulinum bacteria found naturally in soils and in some contaminated food products. It would be premature to speculate about a particular source because we are still trying to conduct our investigation," said Chief of Preventive Medicine at KACC, Lt. Col. Sharon Cole-Wainwright.

Infant Botulism is rare and usually affects infants under six of age.

Symptoms may include constipation, listlessness, difficulty swallowing, a weak cry and a loss of appetite. If parents are concerned, they should contact their health care provider.

Health care professionals recommend that parents of infants wash their hands frequently, clean toys and pacifiers in a weak bleach solution, and thoroughly boil water used to prepare baby formula. These are not foolproof measures for preventing botulism infection, but they afford some protection against the most common avenues of transmission.

(more)
Infant Botulism Found in Two children at Fort Meade

“Our primary concern is always the health and welfare of the members of our community. We will work closely with health officials and will keep the community informed of any new information as it comes available. The Army is committed to providing the safest living and working environment for its people,” said Col. Kenneth McCready, installation commander.
MESSAGE FROM THE INSTALLATION COMMANDER
INFANT BOTULISM FACT SHEET

Walter Reed Army Medical Center has identified two cases of infant botulism at Fort Meade since Oct. 2006. One infant has recovered while the other infant is being treated by doctors at Walter Reed Army Medical Center. The infants, both under the age of 6 months at the time of diagnosis, were treated at Walter Reed Army Medical Center. The cause is currently under investigation by the Preventive Medicine Services at Kimbrough Ambulatory Care Center on Fort Meade. LTC Sharon Cole-Wainwright, Chief of Preventive Medicine at Kimbrough Ambulatory Care Center said, "while the name of the disease can be frightening, infant botulism is a treatable condition associated with swallowing the botulinum bacteria found naturally in soils and in some contaminated food products. It is premature to speculate about a particular source until the investigation is complete." Cases of Infant Botulism are rare and usually occur among infants less than 6 months of age.

What are the symptoms of Infant Botulism?

Any or all of the following:
- constipation
- poor feeding and a weak suck
- weak cry
- loss of head control
- difficulty swallowing
- excessive drooling
- floppy appearance or "floppy baby"
- generalized weakness
- breathing difficulties

What do you do if your infant is experiencing these symptoms?

Call (301) 677-8606 or go to the nearest Emergency Room:
- Howard County General Hospital 5755 Cedar Lane, Columbia, Maryland (410) 740-7890 or 7990
- Laurel Regional Hospital 7300 Van Dusen Road, Laurel, Maryland (301) 725-4300 or (410) 792-2270
- Baltimore Washington Medical Center, 301 Hospital Drive, Glen Burnie, Maryland (410) 787-4000

How is Infant Botulism treated?

Prompt diagnosis is essential. Medication is available to treat the condition.

How can I reduce the risk of contracting Infant Botulism?

- Wash hands frequently
- Avoid giving honey to infants less than 1 year of age
- Routine and frequent cleaning of toys—particularly items that babies place in their mouths and those toys which have fallen on the ground or floor
- Through proper preparation of foods (boiling and cooking)
- Avoid cans of food/formula with dents or that are bulging or rusting
- Avoid locations with excessive dust and debris

For further information about the disease, contact Kimbrough Ambulatory Care Clinic, Preventive Medicine Services (301) 677-8661. If you have other questions or are contacted by the media please refer them to the Fort Meade Public Affairs Office at (301) 677-1436 or 1486.
EPIDEMIOLOGICAL CONSULTATION TEAM AND ITS MISSION AT FORT MEADE
16 Jan 07

BACKGROUND:
In response to lingering concerns about the two cases of infant botulism at Fort Meade, an epidemiological consultation (EPICON) team was requested to assist the medical community here at Fort Meade in its investigation. The EPICON team arrived at Fort Meade on Friday January 12th to begin its mission to investigate the occurrence of these cases. This fact sheet provides some background information about the team and its mission.

What is an EPICON team?
Epidemiology is the science devoted to investigating how population factors and the environment influence the occurrence of diseases or injuries. The team then applies this science to find possible causes, risk factors and opportunities for prevention.

Who is on the EPICON team? Where are they from? What are their specialties?
The EPICON team members are from the U.S. Army Center for Health Promotion and Preventive Medicine, part of the Army's Medical Command, who specializes in preventive medicine, environmental health, epidemiology, and communication about health matters when public concerns are high. In conducting this study the team is collaborating with a physician-epidemiologist from Anne Arundel County's public health department, the Kimbrough preventive medicine staff, the Centers for Disease Control and Prevention (CDC) and the California state health department.

Why is the EPICON team here?
The team was called by the Kimbrough Ambulatory Acute Care Hospital and Garrison Commanders because they believed someone from outside Fort Meade was needed to review the situation and provide advice while allowing Kimbrough to continue their important clinical and preventive medicine mission without disruption.

What methods is the team using to try and find answers?
The team is working to determine if there is any connection between the two cases of infant botulism. The team has interviewed the affected families to identify products used, places visited, possible common exposure, etc. They are reviewing clinical test results on the affected children during their illness, and will review more detailed analysis currently being done at a Maryland state laboratory which will identify the specific subtype of botulism bacteria. Team members are also looking at disease surveillance reports and other data to see if the Fort Meade community or Anne Arundel County has experienced similar cases.

Will environmental sampling be done?
It's certainly understandable why finding the cause is so important to families with young children. Focused environmental sampling in specific areas may be conducted for purely scientific reasons, such as to determine where the bacteria might be present. But random sampling throughout a wide area is unlikely to provide a definite link to the two Fort Meade
cases or help direct future preventive measures, or provide a definite link to one or a few specific areas of contaminated objects or soil. This is because the botulism-causing bacteria are widely distributed in many environments around the world.

How long will the team’s investigation take?
The results of the subtyping of the bacteria from the affected infants are expected to be completed on or about January 20th. This information is critical in answering the question, “Are the two cases connected?” However, the team’s mission will not end there. The EPICON team will continue to conduct a thorough review of the local surveillance data and existing scientific literature; and continue to collaborate with the Fort Meade medical authorities, the Fort Meade garrison, as well as with Anne Arundel County and CDC partners before finalizing its report. The team anticipates delivering a report to the Garrison Commander by the end of February.

Where can I learn more about infant botulism?

National Institutes of Health:
Infant Botulism:
Botulism:

Mayo Clinic Infant Botulism and Honey:
http://www.mayoclinic.com/health/infant-botulism/HQ00854

California Department of Health Services:
http://www.infantbotulism.org/
EPICON No. 13-HG-06TU-07, Fort Meade MD, Jan 06

EPIDEMIOLOGICAL CONSULTATION TEAM AND ITS MISSION AT FORT MEADE
23 Jan 07

BACKGROUND:
In response to lingering concerns about the two cases of infant botulism at Fort Meade, an epidemiological consultation (EPICON) team was requested to assist the medical community here at Fort Meade in its investigation. The EPICON team arrived at Fort Meade on Friday January 12th to begin its mission to investigate the occurrence of these cases. This fact sheet provides some background information about the team and its mission:

What is an EPICON team?
Epidemiology is the science devoted to investigating how population factors and the environment influence the occurrence of diseases or injuries. The team then applies this science to find possible causes, risk factors and opportunities for prevention.

Who is on the EPICON team? Where are they from? What are their specialties?
The EPICON team members are from the U.S. Army Center for Health Promotion and Preventive Medicine, part of the Army's Medical Command, who specializes in preventive medicine, environmental health, epidemiology, and communication about health matters when public concerns are high. In conducting this study the team is collaborating with a physician-epidemiologist from Anne Arundel County’s public health department, the Kimbrough preventive medicine staff, the Centers for Disease Control and Prevention (CDC) and the California state health department.

Why is the EPICON team here?
The team was called by the Kimbrough Ambulatory Acute Care Hospital and Garrison Commanders because they believed someone from outside Fort Meade was needed to review the situation and provide advice while allowing Kimbrough to continue their important clinical and preventive medicine mission without disruption.

What methods is the team using to try and find answers?
The team is working to determine if there is any connection between the two cases of infant botulism. The team has interviewed the affected families to identify products used, places visited, possible common exposure, etc. They are reviewing clinical test results on the affected children during their illness, and will review more detailed analysis currently being done at a Maryland state laboratory which will identify the specific subtype of botulism bacteria. Team members are also looking at disease surveillance reports and other data to see if the Fort Meade community or Anne Arundel County has experienced similar cases.

Will environmental sampling be done?
It's certainly understandable why finding the cause is so important to families with young children. Focused environmental sampling in specific areas may be conducted for purely scientific reasons, such as to determine where the bacteria might be present. But random sampling throughout a wide area is unlikely to provide a definite link to the two Fort Meade
cases or help direct future preventive measures, or provide a definite link to one or a few specific areas of contaminated objects or soil. This is because the botulism-causing bacteria are widely distributed in many environments around the world.

How long will the team's investigation take?
The results of the subtyping of the bacteria from the affected infants are expected to be completed on or about January 20th. This information is critical in answering the question, "Are the two cases connected?" However, the team's mission will not end there. The EPICON team will continue to conduct a thorough review of the local surveillance data and existing scientific literature; and continue to collaborate with the Fort Meade medical authorities, the Fort Meade garrison, as well as with Anne Arundel County and CDC partners before finalizing its report. The team anticipates delivering a report to the Garrison Commander by the end of February.

Where can I learn more about infant botulism and/or the EPICON team?

Fort Meade web page:

USACHPPM and the EPICON team:
Public Affairs Office: 410-436-2088

National Institutes of Health:
Infant Botulism:
Botulism:

Mayo Clinic Infant Botulism and Honey:
http://www.mayoclinic.com/health/infant-botulism/HQ00854

California Department of Health Services:
http://www.infantbotulism.org/
FOR IMMEDIATE RELEASE

Infant botulism investigation update

FORT GEORGE G. MEADE, MD., -- Maryland health officials have confirmed the presence of Type B Clostridium botulinum bacteria from both cases of infant botulism recently diagnosed at Fort Meade. This confirmation was expected as this type of botulism strain is typically found on the East Coast.

The first case of infant botulism was diagnosed in October 2006 and the second in December 2006. Both children have since been treated and are recovering. The children live on Oliver Court at Fort Meade.

The Maryland Department of Health and Mental Hygiene (DHMH) have contacted the Center for Disease Control and Prevention in Atlanta, Ga., to determine if they are willing to do subtyping of the bacteria.

Investigators continue to discuss and coordinate with DHMH, CDC, Fort Meade medical authorities and other experts as they work towards completing the investigation.

In addition, the Army's Medical Surveillance Activity (AMSA) is also working on a retrospective analysis of botulism cases from 1996-2005 for publication in their Medical Surveillance Monthly Report (MSMR) article. These reports are available online at http://amsa.army.mil/AMSA/amsa_home.htm.

-30-

EDITOR’S NOTE: For more information please contact Summer Barkley at (301) 677-1436 or Jennifer Downing at (301) 677-1486.
APPENDIX D

ARMED FORCES INSTITUTE OF PATHOLOGY (AFIP) PROPOSAL TO FUND DEVELOPMENT OF A DEPENDENT MORTALITY DATABASE
Proposed: The goal of this paper is to explore the feasibility of establishing a registry of dependent fatalities, to include exploration of methodologies.

Background: Currently, there is no central source for identifying and tracking mortality amongst the dependents of active duty servicemembers. It is widely believed that domestic abuse is more prevalent in military families than in their civilian counterparts, and numerous programs have been established to mitigate the perceived increased risk of domestic violence in servicemember's families. Establishing a registry of deaths in dependents will allow for the determination of baseline mortality risk from all causes, to include more accurate tracking of domestic violence related deaths. Other potential research areas that could be explored using this registry include reviews of specific types of accidents, SIDS, cancer and infectious disease mortality. By studying the epidemiological patterns of these deaths, focused prevention strategies can be developed to reduce the incidence of death in the spouses and children of servicemembers. Furthermore, establishment of centralized databases to monitor unexplained child deaths was formally recommended by the American Academy of Pediatrics in 1999 (Kairys SW, Alexander RC, Block RW, et al. American Academy of Pediatrics. Committee on Child Abuse and Neglect and Committee on Community Health Services. Investigation and review of unexpected infant and child deaths. Pediatrics 1999; 104:1158-60).

Data Sources and Methodology: The existing DOD-Medical Mortality Registry is an active surveillance system designed to provide real-time outbreak information to decision-makers (Gardner JW, Cozzini CB, Kelley PW, et al. The Department of Defense Medical Mortality Registry. Mil Med. Jul 2000;165(7 Suppl 2):57-61.). An investigation is triggered by receiving current information from each of the Service-Specific Casualty Offices. There would be value in actively monitoring child deaths for infectious agents, as children are often sentinels for outbreaks. An example occurred last year during the influenza outbreak that was particularly noted for causing child fatalities. However, because the Casualty Offices only track and report dependent deaths that occur overseas, real time surveillance of dependent fatalities is not achievable at this time. An alternative approach is to establish a Registry consisting primarily of death certificate data, obtained from National Death Index (NDI) searches. For the purposes of monitoring homicides, this basic level data would provide demographics and a basis for comparison with civilian homicide rates. It would also provide an estimate for the completeness of capture of the established Fatality Review Boards. The two major limitations of this approach are lag time, which averages approximately three years, and incomplete information.

Budget: The costs of establishing a Death Certificate based registry as part of the Armed Forces Medical System are approximately 350K per year, which would support an epidemiologist to collect and analyze the data, and the direct costs of the NDI searches. If real time investigative surveillance is desired, a mechanism for rapidly identifying dependent fatalities would have to be established. Costs from the Armed Forces Medical Examiner System would increase to approximately 450K per year.
APPENDIX E

TEAM MEMBERS AND CONSULTANTS
EPICON Team

COL [Redacted] Directorate of Epidemiology and Disease Surveillance, USACHPPM
MAJ [Redacted] Disease Epidemiology Program, USACHPPM
Mr. J LMI
Ms. [Redacted] Disease Epidemiology Program, USACHPPM
LTC [Redacted] Risk Communication Program, USACHPPM
MAJ(P) [Redacted] Army Medical Surveillance Activity
LTC [Redacted] Department of Preventive Medicine, KACC, Fort Meade

Civilian Public Health Team Partners

Dr. Kelly Russo, Anne Arundel County Public Health Department
Dr. David Blythe, Maryland Department of Health and Mental Hygiene

External Public Health Consultants

Dr. Julie Kiehlbauch, Maryland Dept. of Health and Mental Hygiene Microbiology Laboratory
Dr. Susan Maslanka, Centers for Disease Control and Prevention
Dr. Steven Arnon, California Department of Health Services
CPT [Redacted] Department of Pediatrics, Walter Reed Army Medical Center
Ms. [Redacted] Navy Environmental Health Center
Capt [Redacted] Air Force Institute of Operational Health
SSgt [Redacted] Vandenberg AFB Public Health Element
CDR [Redacted] Armed Forces Medical Examiner System, Mortality Surveillance Division

Public Affairs Consultants

[Redacted] Public Affairs Office
[Redacted] Public Affairs Office
Below is the collected wisdom of our epidemiologists and risk communicator re response to queries about whether military infants get IB at rates greater than other infants. Please disregard the earlier version I sent you.

We understand that and agree with COL [redacted] preference and yours to keep comment on the cases coming from Fort Meade. We're happy to support with additional info any follow-on queries you might get to tonight's Channel 7 story on the [redacted] and/or the belief that there is a higher incidence of IB among military infants. Per discussion, please let us know if there is some pending claim or legal action that would preclude you or us from commenting--I wasn't clear on that when I spoke with [redacted] earlier.

Thanks to all for pulling this together.

U.S. Army Center for Health Promotion & Preventive Medicine
army.mil

The epidemiological report did not say, and we do not believe, that infants on military installations are more susceptible to botulism than other infants.

1. Military infants do not get infant botulism more frequently than other U.S. infants of the same age. Rates among military infants are comparable to U.S. infant rates.

2. Infant botulism occurs rarely. There were a total of two cases at Fort Meade. Sometimes rare events happen close to one other. It's not possible to say that the two cases were not due to random variation (chance).

§ In the IB report, CHPPM epidemiologists included laboratory-confirmed AND probable cases because we wanted to be as transparent as possible and exclude nothing.
§ The CDC rates in the report reflect ONLY lab-confirmed cases.
§ Only six military IB cases in 2002-06 were laboratory confirmed, according to reportable-medical-event reports.

Here's the statistical background from [redacted]

The CDC 2/100,000 rates are based on lab-confirmed cases only. Looking only at Reportable Medical Event cases with lab confirmation (from Table 2 in the tech report) the overall rate of infant botulism among DoD Active-Duty beneficiaries from CY03-CY06 is 1.56/100,000 and is comparable to national rates.
<table>
<thead>
<tr>
<th>Year</th>
<th>CY03</th>
<th>CY04</th>
<th>CY05</th>
<th>CY06</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labs confirmed cases</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Total live births</td>
<td>85583</td>
<td>101522</td>
<td>104356</td>
<td>92551</td>
<td>384012</td>
</tr>
<tr>
<td>Lab Confirmed Rate/100,000 live births</td>
<td>1.17</td>
<td>0.99</td>
<td>0.00</td>
<td>4.32</td>
<td>1.56</td>
</tr>
</tbody>
</table>

Classification: UNCLASSIFIED
Caveats: NONE
Just saw the news report on Channel 7, ABC.

You can find it on the ABC 7 web site

High Rate of Infant Botulism On Ft. Meade Fort Meade, Md. - Tuesday August 14, 2007 4:48 pm

An investigation into Infant Botulism at Fort Meade found children on military bases are more susceptible to the toxin.

(Reporter Stephen Tschida said,)" The study found on average, 8.6 babies contracted the illness per 100,000 births to active military personnel. That's four times higher than the national average. The report also stated that some cases of Sudden Infant Death Syndrome, also known as SIDS, may be due to Infant Botulism.

almost lost her son to the rare paralysis-inducing illness last October. Around the same time, another baby in the same Fort Meade neighborhood also contracted the disease.

says she doesn't feel safe living on the base nor does she think any other parent should. says the military to dig up all the chemical and other hazardous waste dumps on the bases before building new houses on them.

"The base even admitted that there were numerous, I'm quoting the report, numerous chemical waste dumps." said.

 says the Army promised to determine whether the Botulism that infected her son was naturally occurring or engineered in a lab. She says she has never received a response.

ABC 7/Newschannel 8 made repeated calls to the people who conducted the study but also did not get a response.

-----Original Message-----
From: COL KACC-Ft Meade [mailto:AMEDD.ARMY.MIL]
Sent: Tuesday, August 14, 2007 4:51 PM
To: CIV USA IMCOM; LTC KACC-Ft Meade
Subject: RE: infant botulism (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE
There is nothing in the report that I have found that would lead to this conclusion. I am not certain what CHPPM can do as I have re-read the report and don't know how to draw the conclusion that military infants are more susceptible. Isn't that an appropriate response?

Please advise.

COL

"Army Strong--One Team"

COL MS

Ft Meade MEDDAC and Kimbrough Ambulatory Care Center
Office (301) DSN

----Original Message----

From: [mailto: ] CIV USA IMCOM
Sent: August 14, 2007 1:50 PM
To: LTC MIL USA IMCOM; CIV USA IMCOM;
LTC KACC-Ft Meade; Ms USACHPPM
Cc: Command Group;

Subject: Infant Botulism

EXSUM

We received a phone call from Steve at channel 7, WJLA-TV, the ABC station in Washington. Mrs. gave them the complete copy of the Infant Botulism report.

The reporter said that in the report it said that Children at Military Installations are more susceptible to infant botulism and would like to comment on that.

I explained that I had read the executive summary and I had not read that in the report.

I referred him to CHPPM to talk about the report. (She is out. So basically I am just buying time until I can get some answers.)

I referred him to the executive report we have posted on the web site at www.ftmeade.army.mil <http://www.ftmeade.army.mil>

Classification: UNCLASSIFIED
Caveats: NONE
I believe this latest story is out of the Fort Meade localized area now. And is headed to the national area.

We didn’t write the report and we can’t comment about what it says. We didn’t release the report to the family. And as you can see below there is litigation now. I believe OCPA or IMCOM will need to answer any further queries on this as it relates to other installations.

I can’t comment on any other bases. Only what is happening here.

These were the first 2 cases ever reported here.

And there are 6 cases in the state of Maryland over 5 years.

Looking forward to your recommendations.

WJLA, channel 7, local ABC affiliate ran a piece at 1730 today regarding the final report on the two cases of Infant Botulism detected on Ft. Meade last winter. The story was also posted to the website and is pasted below.

It was said that had the full report and either quoted from or alluded to it several times during the piece. Although the report was not actually shown on camera, hands were seen paging through a seemingly lengthy document. (According to Center for Health Promotion and Preventive Medicine, PAO, the full report has limited distribution to US government agencies and their contractors. The logical question is how the family obtained the report).

The interview appeared to have been conducted in the home on the installation.

The reporter interviewed one local resident, who said, “I’m sure the government knows all about this but isn’t doing anything.”
High Rate of Infant Botulism On Ft. Meade

Fort Meade, Md. - Tuesday August 14, 2007 4:48 pm

An investigation into Infant Botulism at Fort Meade, found children on military bases are more susceptible to the toxin.

The study found on average, 8.6 babies contracted the illness per 100,000 births to active military personnel. That's four times higher than the national average.

The report also stated that some cases of Sudden Infant Death Syndrome, also known as SIDS, may be due to Infant Botulism.

almost lost her son to the rare paralysis inducing illness last October. Around the same time, another baby in the same Fort Meade neighborhood also contracted the disease.

says she doesn't feel safe living on the base nor does she think any other parent should.

wants the military to dig up all the chemical and other hazardous waste dumps on the bases before building new houses on them.

"The base even admitted that there were numerous, I'm quoting the report, numerous chemical waste dumps." said.

says the Army promised to determine whether the Botulism that infected her son was naturally occurring or engineered in a lab. She says she has never received a response.

ABC 7/Newschannel 8 made repeated calls to the people who conducted the study but also did not get a response.

PAO posted the executive summary of the report to the Ft. Meade website in June, and it is pasted here.

We were notified last week, 08 Aug, that the family filed three lawsuits:

From: LTC MIL USA IMCOM

Sent: Wednesday, August 08, 2007 8:46 AM

To: COL MIL USA IMCOM
Subject: Infant Botulism

Sir:

This is FYI. No action on your part is required.

On 30 Jul 07, the US Army Claims Service (USARCS) received three claims, each asserting $1 million, filed on behalf of [infant], [mother] and [father]. USARCS forwarded the claims to our Claims Office for processing. The [infant] are represented by a law firm from Austin, Texas. They allege the government was negligent in the placement of a debris pile and environmental contamination which caused Master [infant] to become sick with infant botulism.

We are processing these claims and have coordinated with environmental services and the MEDDAC (Risk Manager). Colonel [colonel] is aware of these claims. We will keep USARCS promptly informed of the claims status.

I am available to address your questions and concerns regarding this matter.

V/R,

LTC [name]

Normally, the installation would not comment on pending litigation, but it might be appropriate to reiterate the command messages that were put out at the time of the initial reports on the two cases of botulism. Talking points are pasted here:

<<Talking Points-Infant Botulism.doc>>
Talking Points – Infant Botulism

- Fort Meade is working with the U.S. Army Center for Health Promotion and Preventive Medicine to ensure a thorough and efficient investigation is conducted.

- Being good stewards of the environment is a major commitment for the Army. Fort Meade shares the environment with everyone who lives, works and plays on the installation. We are committed to ensuring the necessary precautions to prevent any adverse effects on the people who use the installation.

- While Fort Meade is a superfund site designated by the Environmental Protection Agency, the Clostridium botulinum bacteria is a naturally occurring bacteria that is found anywhere in the environment. None of the superfund sites are remotely related to the bacterium that causes infant botulism.

- It is also important to note that infant botulism can be caused by other factors such as improperly prepared food and giving honey to infants less than one year of age. It is important that parents of infant children take precautions to reduce any possible risks.

- The health and well-being of the people who live, work and play on Fort Meade are very important to us. The Army tries to maintain high standards for the environment that we live in. Because locations with excess dust and debris have been shown to increase the risk of contracting infant botulism, future work sites will be positioned further away from housing areas as a preventative measure to keep dust down. All construction work on FGGM uses water to reduce the amount of dust.

- Initial response to the information that dirt creates dust that could create the bacteria, FGGM proceeded to put down hay as a preventive measure. The bacterium currently has not been linked to any dirt specifically on post.
I just talked with Colonel and I advised him that this is not our report and we should not be the ones talking about what it says.

I can talk about what happens on the installation. But if someone else puts out a report. Then they should be the ones discussing it. It is outside of our lane.

-----Original Message-----
From: Ms USACHPPM [mailto:army.mil]
Sent: Tuesday, August 14, 2007 5:56 PM
To: COL KACC-Ft Meade
Cc: Ms USACHPPM; LTC USACHPPM-Wash DC; MAJ USACHPPM; LTC USACHPPM; LTC KACC-Ft Meade; Mr USACHPPM; LTC WRAIR-Wash DC
Subject: Latest version of talking points for response to query (infant botulism) (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Below is the collected wisdom of our epidemiologists and risk communicator re response to queries about whether military infants get IB at rates greater than other infants. Please disregard the earlier version I sent you.

We understand that and agree with COL McCready's preference and yours to keep comment on the cases coming from Fort Meade. We're happy to support with additional info any follow-on queries you might get to tonight's Channel 7 story on the and/or the belief that there is a higher incidence of IB among military infants. Per discussion, please let us know if there is some pending claim or legal action that would preclude you or us from commenting--I wasn't clear on that when I spoke with Melanie earlier.

Thanks to all for pulling this together.

U.S. Army Center for Health Promotion & Preventive Medicine

The epidemiological report did not say, and we do not believe, that infants on military installations are more susceptible to botulism than other infants.

1. Military infants do not get infant botulism more frequently than other U.S. infants of the same age. Rates among military infants are comparable to U.S. infant rates.
2. Infant botulism occurs rarely. There were a total of two cases at Fort Meade. Sometimes rare events happen close to one another. It's not possible to say that the two cases were not due to random variation (chance).

$\quad$ In the IB report, CHPPM epidemiologists included laboratory-confirmed AND probable cases because we wanted to be as transparent as possible and exclude nothing.
$\quad$ The CDC rates in the report reflect ONLY lab-confirmed cases.
$\quad$ Only six military IB cases in 2002-06 were laboratory confirmed, according to reportable-medical-event reports.

Here's the statistical background from

The CDC 2/100,000 rates are based on lab-confirmed cases only. Looking only at Reportable Medical Event cases with lab confirmation (from Table 2 in the tech report) the overall rate of infant botulism among DoD Active-Duty beneficiaries from CY03-CY06 is 1.56/100,000 and is comparable to national rates.

<table>
<thead>
<tr>
<th>CY03</th>
<th>CY04</th>
<th>CY05</th>
<th>CY06</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>lab confirmed cases</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Total live births</td>
<td>85583</td>
<td>101522</td>
<td>104356</td>
<td>92551</td>
</tr>
<tr>
<td>Lab Confirmed Rate/100,000 live births</td>
<td>1.17</td>
<td>0.99</td>
<td>0.00</td>
<td>4.32</td>
</tr>
</tbody>
</table>

Classification: UNCLASSIFIED
Caveats: NONE
Colonel,

I am trying to get guidance. I’ve left a lot of messages. But no answers at this point.

"Army Strong--One Team"

SO what do you desire at this point?

"Army Strong--One Team"

Ms USACHPPM

Ms USACHPPM

Ms USACHPPM

 LTC Wash DC

 LTC WRAIR-Wash DC

I just talked with Colonel and I advised him that this is not our report and we should not be the ones talking about what it says.

I can talk about what happens on the installation. But if someone else puts out a report. Then they should be the ones discussing it. It is outside of our lane.
Below is the collected wisdom of our epidemiologists and risk communicator re response to queries about whether military infants get IB at rates greater than other infants. Please disregard the earlier version I sent you.

We understand that and agree with COL McCreedy's preference and yours to keep comment on the cases coming from Fort Meade. We're happy to support with additional info any follow-on queries you might get to tonight's Channel 7 story on the and/or the belief that there is a higher incidence of IB among military infants. Per discussion, please let us know if there is some pending claim or legal action that would preclude you or us from commenting. I wasn't clear on that when I spoke with earlier.

Thanks to all for pulling this together.

U.S. Army Center for Health Promotion & Preventive Medicine

The epidemiological report did not say, and we do not believe, that infants on military installations are more susceptible to botulism than other infants.

1. Military infants do not get infant botulism more frequently than other U.S. infants of the same age. Rates among military infants are comparable to U.S. infant rates.

2. Infant botulism occurs rarely. There were a total of two cases at Fort Meade. Sometimes rare events happen close to one another. It's not possible to say that the two cases were not due to random variation (chance).

$ In the IB report, CHPPM epidemiologists included laboratory-confirmed AND probable cases because we wanted to be as transparent as possible and exclude nothing.
$ The CDC rates in the report reflect ONLY lab-confirmed cases.
$ Only six military IB cases in 2002-06 were laboratory confirmed, according to reportable-medical-event reports.

Here's the statistical background from MAJ

The CDC 2/100,000 rates are based on lab-confirmed cases only. Looking only at Reportable Medical Event cases with lab confirmation (from Table 2 in the tech report) the overall rate of infant botulism among DoD Active-Duty beneficiaries from CY03-CY06 is 1.56/100,000 and is comparable to national rates.
| Classification: UNCLASSIFIED |
| Caveats: NONE |

<table>
<thead>
<tr>
<th>CY05</th>
<th>CY06</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total live births</th>
<th>104356</th>
<th>92551</th>
<th>384012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab Confirmed Rate/100,000 live births</td>
<td>4.32</td>
<td>1.56</td>
<td>0.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CY03</th>
<th>CY04</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.99</td>
</tr>
</tbody>
</table>
I just talked to [redacted] from OCPA. She agrees with me. The installation shouldn't be responding to a report put out by CHPPM. She said they should take our time and get the right language. And get the right person to respond to ABC.

She is going to get with [redacted] and [redacted] in the morning. They will talk with CHPPM in the morning. Then get back with me.

But right now it is at a national level.

They may take it from here.

I will keep you posted.

[redacted]

Sent using BlackBerry
To simplify: should there be any follow-up to the contents of CHPPM's epidemiological consultation (epicon) report from the local DC/Baltimore media who have followed the story, I will take those queries, obtaining assistance from our senior physician-epidemiologist as need. Please refer them to me at the phone number or email below.

I am copying Mr. and Mr. , the public affairs officers at North Atlantic Regional Medical Command for awareness; I've spoken with Medical Command Headquarters PAO and have requested information through SJA channels on any pending legal activity that could influence response. at Meade PAO mentioned this to me yesterday, but she was not certain what if anything is pending.

I will refer questions about the environmental circumstances at Meade, the commitments made to the by the Army, etc., to the Fort Meade public affairs office for disposition.

U.S. Army Center for Health Promotion & Preventive Medicine

USACHPPM: Saving Lives & Resources—Prevention is the Key.

---Original Message---

Good Morning,

As many of you know, last evening a story ran on a Washington ABC affiliate, WJLA, channel 7, regarding the unsafe living environment here on Ft Meade and made reference to a higher than normal infant botulism rate on all military installations. This information was given to the media by an on-post resident, whose son became ill with infant botulism. (If you recall, we had 2 cases of infantile botulism on Ft Meade at the end of 2006: 1 in Oct 06 and the other in Dec 06). CHPPM conducted an EPICON and published a final report on the two cases of Infant Botulism. There was no conclusive evidence that
the 2 cases were related or the cause determined.

obtained a copy of this report (not too sure how) and focused on epi data reported on page 9 whereby CHPPM reports infantile botulism cases (known and suspected) in the U.S. A misinterpretation of the epidemiological information led to the inappropriate conclusion that military bases have a higher than normal rate of infantile botulism. Mrs. had the full report and either quoted from or alluded to it several times during the news piece. Although the report was not actually shown on camera, hands were seen paging through a seemingly lengthy document (it was the CHPPM report).

Additionally, the reporter interviewed one local resident, who said, “I’m sure the government knows all about this but isn’t doing anything.” said “I don’t feel safe living on base any more.” A link to this report is shown below.

Our PAO here at Ft Meade, believes that this story has national attention since the reporter indicates a higher rate on military installations (not just Ft Meade.) Ms Moore informed Ms Rebecca Wriggle, OCPA and IMCOM PAO personnel. The Ft Meade PAO and garrison commander feel that they shouldn’t be responding to a report put out by CHPPM particularly one where there are conclusions drawn that reference all military installations. Additionally, the family has filed lawsuits and our legal advisers here on Ft Meade have asked that we try to minimize communication on this issue without their involvement.

I am not sure where this is going but wanted you all to have situational awareness from the FT Meade perspective. We have developed media talking points to respond to RFIs as it pertains to Ft Meade.

"Army Strong--One Team"

COL, MS

Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
Office $ DSN#

-----Original Message-----
From: [mailto:us.army.mil]
Sent: Tuesday, August 14, 2007 6:00 PM
To: COL KRCC-Ft Meade;
Cc: Command Group; Ms USACHPPM; Ms USACHPPM;
Bozeman, Paul Mr OCPA; us.army.mil; US USA IMCOM;

Subject: RE: Infant botulism (UNCLASSIFIED)

Just saw the news report on Channel 7, ABC.

You can find it on the ABC 7 web site

High Rate of Infant Botulism On Ft. Meade Fort Meade, Md. - Tuesday August 14, 2007 4:48 pm

An investigation into Infant Botulism at Fort Meade found children on military bases are more susceptible to the toxin.

(Reporter Stephen Tschida said,)" The study found on average, 8.6 babies contracted the illness per 100,000 births to active military personnel. That's four times higher than the national average. The report also stated that some cases
of Sudden Infant Death Syndrome, also known as SIDS, may be due to Infant Botulism. 

Almost lost her son to the rare paralysis-inducing illness last October. Around the same time, another baby in the same Fort Meade neighborhood also contracted the disease.

 says she doesn't feel safe living on the base nor does she think any other parent should. wants the military to dig up all the chemical and other hazardous waste dumps on the bases before building new houses on them.

"The base even admitted that there were numerous, I'm quoting the report, numerous chemical waste dumps." said.

 says the Army promised to determine whether the Botulism that infected her son was naturally occurring or engineered in a lab. She says she has never received a response.

Classification: UNCLASSIFIED Caveats: NONE

Classification: UNCLASSIFIED Caveats: NONE
KACC-Ft Meade

From: [Redacted] KACC-Ft Meade
Sent: Thursday, August 16, 2007 8:16 AM
To: [Redacted] KACC-Ft Meade
Cc: 'Moore, Melanie CIV USA IMCOM'; [Redacted] MIL DHCS-Ft Belvoir
Subject: FW: botulism presentation w/o pictures (UNCLASSIFIED)
Signed By: CUMMINGS, LAURIE, ANN. 1005829590
Attachments: Botulism Talk no pictures.ppt

Classification: UNCLASSIFIED
Caveats: NONE

CPT

I strongly recommend you get approval from the Garrison Commander and PAO before giving this presentation. I understand you presented this at a military conference last week in Louisville, KY. I am not in your supervisory chain nor can I speak for the garrison staff, but I would not approve this presentation as written if I were due to the increased sensitivity with this issue and the potential questions it would raise in a population of untrained personnel and the release of the electronic file outside the military community.

COL

"Army Strong—One Team"

COL MS

KACC-Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
Office (301)
KACC-Ft Meade

-----Original Message-----
From: [Redacted] LTC KACC-Ft Meade
Sent: Thursday, August 16, 2007 7:34 AM
To: [Redacted] COL KACC-Ft Meade
Subject: FW: botulism presentation w/o pictures (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Ma'am,

I was able to get [Redacted] to send me her presentation from the FHP and what she was trying to present at the MD Vet Med Association Meeting. I will ask her not to address the cases that were here on Fort Meade I am somewhat uncomfortable with the presentation and the amount of detail.

Thanks

-----Original Message-----
From: [Redacted] amedd.army.mil
[mailto: LN. amedd.army.mil]

Please let me know how you feel about this presentation, Ma'am, and what, if anything, I can do to make it legally acceptable to give at the MD Veterinary Medical Association meeting.

Thank you,

[Redacted]
Two Cases of Infant Botulism on the Installation (Ft. Meade)

- The investigation: the role of the vet and the importance of coordination
- Botulism, comparative medicine
- What ifs: agroterrorism and foreign animal diseases
Call from PM Chief

Goal: to get together PM, epidemiology, environmental health, and vet services, and conference call with others to include members of the CDC. Share the case details and discuss the situation and how to proceed with planning and executing an epidemiological investigation.
Case 1, October 2006

4 children in the family, stay-at-home mom, no daycare

http://news.bbc.co.uk/2/low/uk_news/england/hampshire/4346687.stm
Case 2,
January 2007

Only child, did go to daycare
The Location:

- The two cases occurred in two town houses found in the same block of six and separated by only one home.

- The neighborhood was undergoing construction with significant soil disruption 400 yards upwind of the two homes over an approximately football field-sized area. Whether this construction was already underway before the first case is not clear.
Conference Call: The Players

- Director of Epidemiology and Disease Surveillance at CHPPM
- Army Medical Surveillance, also with CHPPM
- Chief of Preventative Medicine
- Chief of Environmental Health
- MD State Epidemiology, the Disease Control Program
- County Health Department
- CDC
- VCO
The Agenda

▲ Create an EpiCon Team
  ▲ Headed by CHPPM Epi, probably consist of a Risk Communicator and 2 or 3 Epidemiologists and be a collaboration between MD State Epi and the military

▲ Collaborate on a questionnaire for the families

▲ Discuss a lab sampling plan
  ▲ Caution from the State lab: do not overload our testing capabilities and do not sample w/o testing

▲ Plan a way to proactively handle media relations
**VCO role**

- *Could have been* to mobilize our food inspectors to respond to a recall for a food borne illness outbreak in baby formula
- *Turned out to be* answering questions such as:
  - What would symptoms of botulism in my pet be?
  - Have a bunch of dead animals ever been buried in that area?
  - Have bird die-offs occurred on ponds on base?
  - I’ve seen dented cans: what is Vet Services doing to protect us from botulism in the Commissary?
Clostridium Botulinum
A gram+, anaerobic, spore-forming bacterium

Botulism
Disease of acute, progressive, flaccid paralysis caused by neurotoxin produced by C. botulinum
Brief Timeline of Botulism Facts

- **1793**: Wildbad, Germany experienced a large outbreak of food poisoning from blood sausages. The cause of the illness and was called “Wurstgift” by German physician and poet Justinius Kerner.

- **1895**: Professor Emile Pierre van Ermengem, of Ellezelles, Belgium identified the botulinum bacterium as the causative agent for botulism poisoning. During an outbreak of contaminated preserved ham, he used Koch's postulates to determine the cause of disease.

- **1928**: Dr. Herman Sommer at UCSF isolated botulinum neurotoxin.
Timeline Continued

1943: WWII foreign intelligence reports indicated that Japan was developing biowarfare programs using agents like anthrax and botulinum toxin. In response, the U.S. National Academy of Sciences and Fred Ira Baldwin, chairman of the bacteriology department of the University of Wisconsin, set up laboratories at Fort Detrick, Maryland for offensive and defensive biowarfare research.

1946: Dr. Edward Schantz, an army officer stationed at Fort Detrick, purifies botulinum neurotoxin in great quantities for use in government and educational institutions.
A historical incident illustrates a number of features of botulinum toxin not discussed in the review of bioweaponry

During World War II, the US Office of Strategic Services (OSS) developed a plan for Chinese prostitutes to assassinate high-ranking Japanese officers with whom they sometimes consorted in occupied Chinese cities. Concealing traditional weapons on the women at the appropriate time would obviously be difficult. Therefore, under the direction of Stanley Lovell, the OSS prepared gelatin capsules "less than the size of the head of a common pin" containing a lethal dose of botulinum toxin. Wetted, a capsule could be stuck behind the ear or in scalp hair, later to be detached and slipped into the officer's food or drink. The OSS recognized that the normal background of botulism cases would deflect suspicion from the women.

The capsules were shipped to Chunking, China. The Navy detachment there, taking nothing for granted, tested the capsules on stray donkeys. The donkeys lived. Lovell was informed that the capsules were faulty, and the project was abandoned.

(R. H. Whitlock, DVM, PhD, written communication, April 27, 2001).
Edward Schantz later collaborated with Alan B. Scott, M.D., who used the toxin to relieve strabismus in monkeys.

Over the course of 20 years they developed a version of the toxin that was approved by the FDA for testing on humans. They sold it to the pharmaceutical company Allergan, which branded the drug Botox.

In 1989, the FDA approved it for the treatment of strabismus, blepharospasm and hemifacial spasm in patients over 12 years old.

In 2002, the FDA approved it for brow line wrinkle treatment.
Company Accused Of Selling Knockoff Botox
That Paralyzed Four

Agents Say Company Shipped Unapproved Toxin-Based Drugs

December 10, 2004

TUSCON, Ariz. — Federal investigators say there may be a link between an Arizona company and anti-wrinkle injections that paralyzed four people in Florida. Federal prosecutors and Food and Drug Administration officials searched the offices of Toxin Research International Inc., in Tuscon, Ariz., Saturday. They reportedly seized computer equipment and other items to track down records about the sale, purchase, storage, shipment and marketing of Clostridium botulinum.

FDA investigators said they believed TRI illegally shipped an unapproved botulism-based drug "into interstate commerce with the intent to defraud or mislead" clients to believe it was the approved drug Botox.

FDA special agent Susan Leeds also alleged that TRI lied to the FDA by claiming it hadn't sold the substance to doctors using products on humans, or to those not involved in research.

The FDA has approved the drug Botulinum Toxin Type A made by Allergan for some neck pain, eye movement spasms and wrinkle removal, under the names Botox and Botox Cosmetic.

TRI claims its drug is for research purposes only; its Web site carries the disclaimer: "Not for Human Use."

The investigation started after four people received anti-wrinkle injections at the Advanced Integrated Medical Center in Oakland Park.

The Centers for Disease Control and Prevention notified the FDA that a married couple was admitted Nov. 26 to a Palm Beach medical center after showing symptoms of botulism.

Eric and Bonnie Kaplan had received anti-wrinkle injections two days earlier at a Fort Lauderdale clinic from a man identified as Bach McComb -- a doctor of osteopathy whose medical license was suspended for allegedly prescribing "excessive amounts of controlled substances," according to the couple's doctor.

McComb himself also became sick after he and his girlfriend received injections. They were both hospitalized in Bayonne, N.J., the same day as the Kaplans.
DR. ERIC KAPLAN RECOUNTS STORY OF HOW HE AND HIS WIFE NEARLY DIED FROM ‘BAD BOTOX’

PALM BEACH, Florida – Just before Thanksgiving 2004, Dr. Eric Kaplan and his wife Bonnie did what millions of Americans do every year: they visited a doctor so they could be injected with Botox. The Kaplans thought this was a perfectly safe procedure that would make them look ten years younger, but they were very nearly dead wrong. The “Botox” they received was counterfeit and they were poisoned with a counterfeit substance – raw Botulinum Toxin, an extremely dangerous and extremely poisonous toxin. Within days, both had developed severe botulism and were fighting for their lives in a South Florida hospital. Dr. Kaplan is sharing their story in a forthcoming book.

Dying to Be Young: From Botox to Botulism.

Dying to Be Young (Nightengale Press, ISBN: 1-933449-40-3) is scheduled for release in February 2007. Part survivor story, part powerful warning, Dying to Be Young is a harrowing chronicle of the Kaplans’ ordeal – complete paralysis, total life support, six weeks in a Florida hospital, a lengthy stay in a rehabilitation center in Georgia, and beyond. Dying to Be Young is far more than a tell-all about the dangers associated with Botox; Dying to Be Young is a gripping chronicle of triumph over tragedy, inspiration, spirit and love.

Resplendent with moving truths and insights, Dying to Be Young is the journal of a man fighting for life, a story of awakening, and a remarkable testament to the triumph of the human spirit. Dr. Kaplan’s hope for the book is two-fold: first, he hopes to raise the level of consciousness about the dangers associated with Botox and second, he hopes to share the lessons he learned during the ordeal.

“My goal in sharing our story is to underscore that the power of mind, spirit and soul is far stronger than any muscle in our body. It is my heartfelt desire that this book inspires readers to see beyond the mundane and be thankful for the little things in life – the ability to blink, to breathe, to move, to laugh, to cry, to love and be loved.”
C. botulinum and Botulism

- C. botulinum likes warm, moist, oxygen-free environments.
- Forms spores if environment is not conducive to growth. Spores are hardy and infectious, found in the environment.
- Toxin is produced when spores encounter an ideal environment, germinate, and grow.
- The toxin can cause food-borne, infant, and wound botulism.

And indeterminate CDC
Food-Borne Botulism

Spores not killed by correct canning germinate in anaerobic environments and produce toxin.

The toxin is absorbed by the upper GI tract and passes into the bloodstream by which it reaches the peripheral neuromuscular synapses.

Clinical symptoms of botulism begin 18-36 hours after toxin ingestion with weakness, dizziness and dryness of the mouth.

Nausea and vomiting may occur. Neurologic signs include blurred vision, inability to swallow, difficulty in speech, weakness of skeletal muscles and respiratory paralysis.
Home canning is often the culprit in food-borne botulism cases.
Infant Botulism

- Infant botulism may be due to infection caused by *C. botulinum*, which may colonize the GI tract before normal flora has a chance to grow.

- The disease occurs in infants that have been exposed to spores.

- Toxin produces the symptoms, characterized initially by constipation, poor nursing, and generalized weakness.

- Infant botulism may be a cause of sudden infant death syndrome (SIDS). *C. botulinum*, its toxin, or both have been found in the bowel contents of several infants who have died suddenly and unexpectedly.
Wound-associated Botulism

Rarest form of human botulism

Drug users, especially black tar heroin IM
Toxin Types

- 7 toxigenic types of the organism exist, each producing an immunologically distinct form of botulinum toxin: A, B, C, D, E, F, and G

- In the U.S. Type A is the most significant cause of human botulism cases

- Infants seem to get Type A or B botulinum toxin; the Fort Meade cases were both Type B toxin

- A and B are common in soil while the rest are frequently found in wet environments

- Note: Clinical disease is the same but treatment with antiserum depends on toxin type
Remember, botulinum is in soil, water sediments, animal GI tracts, animal tissues

Botulism in Animals

(they NEVER read the USDA Complete Guide to Home Canning)

- Often similar to food-borne illness
- Wound botulism
- Limberneck, Western Duck Sickness
- Shaker Foal Syndrome (similar to infant botulism)
- Loin Disease, Lamziekte
- Cats, dogs, pigs fairly resistant (never reported in a cat)
Ruminant Botulism

- Botulinum toxin Type B
- Often secondary to protein or phosphorus deficiency resulting in pica
- Ingestion of toxin while eating bones, contaminated silage, poultry litter
- Signs: drooling, restlessness, recumbency (r/o rabies!)
Shaker Foal Syndrome

- Similar to infant botulism
- Type B Toxin
- Foals <4 weeks old
- Stilted gait, muscle weakness, tremors, dysphagia, constipation, respiratory paralysis

Contaminated forage, Types B and C
Waterfowl Botulism

- Usually Type C Toxin, occasionally E
- Mass die-offs possible
- Birds frequently drown
- Rotting vegetation implicated

http://wildlife1.usask.ca/wildlife_health_topics/images/neck_paralysis.jpg
Blowfly larvae absorb Type C toxin but are apparently not harmed by it.

Five maggots may contain enough Type C botulinum toxin to kill a duck.
One dead bird can easily turn into many

Now imagine, what if a massive bird die off occurred on the installation?
What if it looked like Avian Influenza?

- VCO training, SMART-V
- Foreign Animal Disease
  - FADP short course, Animal and Plant Health Inspection Service of the United States Department of Agriculture
  - FADD at Plum Island
- Call your State Vet, FADD will head up investigation, sampling, etc according to the National Animal Health Emergency Management System

Attending the FADP course were two FBI agents: WMD coordinators

- FBI lead investigative agency for law enforcement ops in terrorist situations
  - Preparedness, countermeasures, investigation and operations, intelligence and analysis
- Looking at Foreign Animal Disease outbreaks as potentially intentional uses of biological Weapons of Mass Destruction
- Conduct criminal investigations of WMD events
- Came to learn how we do the epidemiological investigation
Multi-Agency Joint Agro-Criminal Epidemiological Investigation Training Workshop

- FBI: CBRNE threats (lead investigative)
- CDC:
  - Public Health Emergency Response (lead for PH response in agroterrorism case)
  - Databases of hospital and clinician reports
  - Bioterrorism Preparedness Response Plan
- APHIS of USDA (FADs)
- USDA Special Ops Emergency Response
- FDA Office of Criminal Investigation, Counterterrorism and Intelligence
  - Counter-terrorism Center
George Hughes, Senior Special Agent, FDA OCI

- Tampering with an FDA approved product is a federal felony
  - Counterfeit and unapproved drugs
  - Product substitution
  - Tampering
  - Fraudulent health treatments
  - New drug application fraud
  - Clinical investigation fraud
  - Illicit prescription drug diversion from normal distribution
Infant Formula Story

- Infant formula delivered to WIC (Special Supplemental Nutrition Program for Women, Infants and Children) program mothers
- Mothers exchanged it at the local store for less than the case is worth
- Store prints new boxes, resells it at full value
- Left-over returned to warehouse
- Codes removed with nail polish remover and altered so expired product could be resold
The more direct connection between bioterrorism and 2 cases of infant botulism on the installation...

The United States Centers for Disease Control and Prevention (CDC) has categorized bioterrorism threat agents based on their transmissibility, mortality, public health impact and requirements for containment and response.

Agents in the highest priority category are easily transmitted from person-to-person, have high mortality rates and have the potential to cause major public health impact.

The agents and diseases in Category A are Anthrax, Botulism, Plague, Smallpox, Tularemia, and Viral hemorrhagic fevers. The viral hemorrhagic fevers include Ebola and Marburg.
Goals in Summary

- Review botulism
- Importance of inter-agency coordination and collaboration in an investigation
- Think big: One Health in the context of a globalized world and the reality of terrorism
References

- www.food-info.net/uk/bact/clbot.htm
- http://yalemedicine.yale.edu/ym_au06/rounds.html
- http://www.bact.wisc.edu/themicrobialworld/Botulism.html
- http://microvet.arizona.edu/Courses/MIC420/NOTES%20ON%20THE%20WEB/NEUROTOXCLOS2006.doc
For your information. I am trying to get answers on this. I would like to correct the statement she made to the reporter by tomorrow if I can get some answers. My commander will look like we were hiding the report. And we were not.

I can't find it. But I know that there was a cover on the executive summary that we saw that showed that the document could not be released. It was for official use only. Not releasable. There is the Hipaa Act too. The report had personal information that could not be releasable to the public.

So why is CHPPM PAO saying my commander had release authority for the report. Instead of saying we could not release the report due to the HIPPA act.

-----Original Message-----
From: Boyce, Paul Mr OCPA
Sent: Tuesday, August 21, 2007 4:54 PM
To: CIV USA IMCOM; Ms USACHPPM
Subject: RE: CHPPM input to MR dailies (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Please work with My thanks. v/r -- paul

-----Original Message-----
From: CIV USA IMCOM
Sent: Tuesday, August 21, 2007 4:42 PM
To: Boyce, Paul Mr OCPA; Ms USACHPPM
Subject: FW: CHPPM input to MR dailies (UNCLASSIFIED)

I don't think it is right to say that the commander of Fort Meade is the release authority for this document. I read the cover. It said this document could not be released. It said for Official use only.
I remember it because we had problems even putting the executive summary on the web site because of the cover sheet.

So now, telling the Baltimore Sun, my commander had release authority.

Now we look like the bad guys.

I really need some clarification on this. The cover said the report wasn't releasable to the public.

Of course we can't find that cover sheet. And I still don't have a copy of this CHPPM report. Why would my commander be the release authority for a report we didn't write?
Baltimore Sun Queries Re CHPPM Infant Botulism Report—Bradley Olson, who covered last winter's story of 2 cases of infant botulism at Fort Meade, MD, requested information about the epidemiological report of the investigation into those cases. CHPPM physician-epidemiologist who was part of the EPICON team discussed report conclusion, issue of soil testing (this was not done; Army, CDC, Maryland and California departments of public health all concurred that it would not establish cause and effect), other tests for the disease, why full report was not released to the public (report was made to the Fort Meade garrison commander, who is the release authority). Outlook: balanced; story scheduled for Wednesday but may be held over until Thursday.
Subject: FW: FW: Infant Botulism Cases at Ft. Meade (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Sir,

No news yet but MD Department of Health and Mental Hygiene Lab has requested CDC lab release the report to them ASAP. Typing was done at the MD state public health laboratory and sub-typing was done at the CDC.

Again, want to caution this subtyping was recommended to build a library of Type B C. botulinum isolates on the East Coast for future comparison, was not part of our investigation, and will not change our conclusions.

I will call Dr. Blythe again today to follow up.

VR,

---- Original Message ----
From: David Blythe [mailto:DBLYTHE@dhmh.state.md.us]
Sent: Thursday, August 30, 2007 6:30 PM
To: SACHPPM
Subject: Re: FW: Infant Botulism Cases at Ft. Meade (UNCLASSIFIED)

I wish I could say otherwise, but we still don't have a definitive date from CDC. The most recent date suggested has already passed. I'll speak again tomorrow to Dr. Kiehlbauch from our lab and to Dr. Jack DeBoy, the Director of the entire state lab, to see what else we can do. Will follow up with you as soon as I know more.

>>> "MAJ USACHPPM" us.army.mil> 8/30/2007
>>> 4:55 PM >>>
Classification: UNCLASSIFIED
Caveats: NONE

Dr. Blythe,
The commander of Fort Meade, COL [REDACTED] is asking whether we have any news on the subtyping results from the CDC. I know there is a draft but wonder if anything is available for release to him yet?

Thanks,

MAJ USACHPPM [us.army.mil]
Sir,

Attached is our final text for the infant botulism EPICON press release. Two areas for clarification are marked with comments.

Advise release with the understanding that we are still awaiting CDC lab subtyping results. Expect any time but have been waiting for quite some time. When released by CDC, recommend notification be from AA County PH (Dr. Kelley Russo) or Maryland PH (Dr. David Blythe) since they are who requested the labs from CDC and the subtyping is not part of our investigation.

VR,

Disease Epidemiology

Directorate of Epidemiology and Disease Surveillance U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM)

(Office)
Classification: UNCLASSIFIED
Caveats: NONE
From: LTC KACC-Ft Meade
Sent: Monday, January 08, 2007 9:55 AM
To: LTC KACC-Ft Meade
Subject: Botulism Case Update
Signed By: 005829590

Importance: High

Please alert the vets on post, if they are not aware of this, since one of the areas of concern is food stuff--Similac.

COL Cummings

"Army Strong--One Team"

Note from (EIP Nurse WRAMC) and Dr [redacted]

LTC [redacted]

Here is some message traffic I think you might like to have

RN, CCN, CSBP, MPH

Army Public
Walter Reed Army Medical Center
Office: DSN 662
Cell: [redacted]
Thanks much for your call and all info Mr. ... Sorry to hear about your condition.

As far as the 2 cases of botulism at Fort Meade reported yesterday at the Epi Chiefs’ meeting, I understand there are no common foodstuff exposures identified to-date, such as honey-containing food items, no tap water or other suspicious items. They have been exposed, however, to Similac with Iron canned formulations, which have been set aside for bot toxin testing. In addition, there is evidence of reconstruction of houses within 1 mile (but not immediately next to) and possible contamination with earth which many of us feel is probably not an important factor.

Regarding the four cases in the community surrounding Fort Meade, MD, I understand the history is less clear. You have been called and interacted with the Anne Arundel Co Health Dept and have spoken to Mr. John Sweitzer at the State Health Dept in Baltimore, MD, for possible testing of the Similac cans and are awaiting his response. We would be very interested in a follow-up on such testing, if you can arrange for it.

Thanks for input and let me know of any further developments, Toti MD MPH

Emerging Infections Surveillance & Response System 2900 Linden Lane, Suite 100-3 Silver Spring, MD 20910
Phone: (301)  ...
Mobile: (301)  ...
E-mail: ...@amedd.army.mil

GEIS staff: FYI on bot cases at Fort Meade
Please call me Thanks

RN, CCM, CSPI, MPH
Army Public Health Epidemiologist
Walter Reed Army Medical Center
Office: DSN 662
Cell:

Original Message
From: LTC KACC-Ft Meade
Sent: Tuesday, January 09, 2007 2:56 PM
To: Mr WRAMC-Wash DC
Subject: RE: INFANT BOTULISM-Follow-Up Note from Mr. at WRAMC

Who is doing the testing on the Similac formula??

Original Message
From: Mr WRAMC-Wash DC
Sent: Friday, January 05, 2007 3:32 PM
To: LTC KACC-Ft Meade
Subject: FW: INFANT BOTULISM-Follow-Up Note from Mr. at WRAMC

LTC
Here is some message traffic I think you might like to have

RN, CCM, CSPI, MPH
Army Public Health Epidemiologist
Walter Reed Army Medical Center
Office: DSN 662
Cell:

Original Message
From: Dr CONTRACTOR WRAIR-Wash DC
Sent: Friday, January 05, 2007 3:02 PM
To: Mr WRAMC-Wash DC
Cc: LTC WRAMC-Wash DC; COL; MAJ WRAMC-Wash DC; Dr CONTRACTOR WRAIR-Wash DC;
Dr CONTRACTOR WRAIR-Wash DC; LTC WRAIR-Wash DC; LTC WRAIR-Wash DC;
Dr CONTRACTOR WRAIR-Wash DC
Subject: INFANT BOTULISM-Follow-Up Note from Mr. at WRAMC

Thanks much for your call and all info Mr. Sorry to hear about your condition.

As far as the 2 cases of botulism at Fort Meade reported yesterday at the Epi Chiefs' meeting, I understand there are no common foodstuff exposures identified to-date, such as honey-containing food items, no tap water or other suspicious items. They have been exposed, however, to Similac with Iron canned formulations, which have been set aside for bot toxin testing. In addition, there is evidence of reconstruction of houses within 1 mile (but not immediately next to) and possible contamination with earth which many of us feel is probably not an important factor.

Regarding the four cases in the community surrounding Fort Meade, MD, I understand the
history is less clear. You have been called and interacted with the Anne Arundel Co
Health Dept and have spoken to Mr. John Sweitzer at the State Health Dept in Baltimore, 
MD, for possible testing of the Similac cans and are awaiting his response. We would be 
very interested in a follow-up on such testing, if you can arrange for it.

Thanks for input and let me know of any further developments, Toni

Infections Surveillance & Response System 2900 Linden Lane, Suite 100-3 Silver Spring, MD 
20910

---Original Message---
From: [Redacted]  Mr WRAMC-Wash DC
Sent: Friday, January 05, 2007 2:37 PM
To: [Redacted] Dr CONTRACTOR WRAIR-Wash DC
Cc: LTC WRAMC-Wash DC; COL; MAJ WRAMC-Wash DC
Subject: INFANT BOTULISM

Dr. [Redacted] I understand through C. Carneiro that you would like the info on the 
two Infant Botulism cases. I a work for LTC [Redacted] here in P.M. And will be very 
happy to provide the info for us. Anything I cannot do [Redacted] available. Think you 
know we did not have an MD C, FM, since COL [Redacted] left in 2004 and [Redacted] arrived in October 
2006.

is a contractor with Inf Control in the Hospital hired to do 
Acinetobacter related issues, however she has a rich Public Health Background, and during
a staffing crunch here in P.M. really helped the WRAMC Prev Med program, and worked the 
first case of Infant Botulism back in October. [Redacted] arrived in mid October, and I
returned to work 30 October 2006 after a 5 month absence (left leg amputated for 
Sarcoma), am retired Army CHN. Was C, PM Bremerhaven for 3 years, and C, P.M. for about
a year up at Kirk, APG during the 15-6 mess with Ric Davilla in the late 1980's while
they were recruiting a DAC. (Dr. [Redacted] just retired about a year ago)

I have both case files here please call me and I will send you what I have done,
including my contacts with the MD state Hlth Dept., etc., etc.
If you dial my office number [Redacted] and I am not at my desk, my phone calls route to my

[Redacted] RN. CCM, CSPI, MPH
Army Public
Walter Reed Army Medical Center
Office: [Redacted] DSN 662
Cell: [Redacted]
1515 hrs 9 Jan 07
Just had a call from Dr. David Blythe, M.D. Maryland State Epidemiologist. The final stool cultures results came back to Dr. Blythe right before he called me as positive for the type B Toxin. Same type as the other child at Meade, however Dr. Blythe indicated that B is the most common type of Infant Botulism. This information phoned to Dr. CPT, M.C. Ward 51.

RN, CCM, CSPI, MPH
Army Public
Walter Reed Army Medical Center
Office: DSN 662
Cell:
Hi,

I can tell you that my Preventive Medicine personnel are aware of this issue and are working on it. I will have them forward you a summary and update.

Laurie

LTC, I am under the impression that this was not an issue of concern for the installation, please advise and summarize the botulism cases and issues as they pertain to Ft Meade (minus specific PHI). Thank you.

COL

"Army Strong--One Team"

COL, MS

Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) DSN 622-

We just received a call from a [redacted] reporting that two months ago he had taken his [redacted] to Walter Reed. COL [mailto: [redacted]@us.army.mil] received a call from CDC today to get information from him. The caller indicated there had been another Ft. Meade infant that had been diagnosed with botulism. Can you check on this for me and let me know if we have any public health issues we should address? As I understand it, infant botulism (the majority of all reported cases) results primarily from feeding the child honey or corn syrup or other sweetener before age 1. The Marine is cell 410-733-3714.
Sir,

This is message I received from Ann Ham.

-----Original Message-----
From: Ms OTSG
Sent: Wednesday, January 10, 2007 9:41 AM
To: Ms USACHPPM
Subject: FW: Infant hospitalized in October (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: FOUO//SENSITIVE

Please check with COL to see if CHPPM is involved in investigating this situation of October.

Public Affairs and Marketing
OTSG/MEDCOM
703.
DSN .army.mil

This message is intended only for the named recipients and may contain information that is privileged or exempt from disclosure under applicable law. Information contained in this correspondence may be subject to the Privacy Act of 1974 (5U.S.C. 552a). Personal information contained in this correspondence may be used only by authorized persons in the conduct of official business. Any unauthorized disclosure or misuse of personal information may result in criminal and/or civil penalties. If you are not the intended recipient of this correspondence please destroy all copies of this correspondence after notifying the sender of your receipt of it.

-----Original Message-----
From: COL OTSG
Sent: Wednesday, January 10, 2007 9:23 AM
To: Ms OTSG
Cc: COL OTSG; Ms OTSG; LTC OTSG
Subject: RR: Infant hospitalized in October (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

First I've heard of it! We'll see what we can find out.

Proponent for Preventive Medicine
Office of the Surgeon General
(703) [REDACTED] DSN: 761

-----Original Message-----
From: [REDACTED] Ms OTSG
Sent: Wednesday, January 10, 2007 8:48 AM
To: [REDACTED] COL OTSG
Cc: [REDACTED] COL OTSG; [REDACTED] Ms OTSG; [REDACTED] LTC OTSG
Subject: FW: Infant hospitalized in October (UNCLASSIFIED)

Unclassified
Caveats: NONE

Co,
Please see email below ref botulism, Fort Meade.
Do you have additional insight on this one?
Thanks,

This message is confidential, intended only for the named recipient(s) and may contain information that is privileged or exempt from disclosure under applicable law. Information contained in this correspondence may be subject to the Privacy Act of 1974 (5 U.S.C. 552a). Personal information contained in this correspondence may be used only by authorized persons in the conduct of official business. Any unauthorized disclosure or misuse of personal information may result in criminal and/or civil penalties. If you are not the intended recipient of this correspondence please destroy all copies of this correspondence after notifying the sender of your receipt of it.

-----Original Message-----
From: [REDACTED] [mailto:[REDACTED]army.mil]
Sent: Tuesday, January 09, 2007 7:53 PM
To: [REDACTED] COL; [REDACTED] CSM;
Subject: Infant hospitalized in OCTOBER.

EXSUM

January 9, 2007
For Official Use ONLY
Do NOT RELEASE

Response to Query:

The [REDACTED] family told Fort Meade officials late yesterday that their infant son was hospitalized in October for "botulism." The family says the child has since recovered.

The Preventative Medicine Office at Kimbrough and Fort Meade Officials are investigating the situation.

Response to Query about the second case:

We are not aware of any additional cases at this time. But we are always concerned about all service members and their families' health issues.
Centers for Disease Control (CDC) called \[\text{Redacted}\] and informed her that a 2nd case has been confirmed on Fort Meade today.

\[\text{Redacted}\] was the Pediatrics doctor.

The family said the CDC investigator implied that a debris pile located on the corner of Clark Road may be the source of the airborne Botulism.

\[\text{Redacted}\] confirmed that there were complaints of a dust cloud in the area and Picerne military housing agreed to water the area down. The debris pile consists of crushed concrete.

Potential issues are yet to be investigated:

We have a meeting with the commander at 8:00 in the morning in his office. Will keep everyone notified.

(CBS- Channel 9 WUSA may pick up the story. Fort Meade PAO was notified by DINFOS PAO that the wife of the family wanted to have them at her house last night. But Fort Meade PAO informed the family that all media coming to the installation must be escorted by our office.)
From: OTSG
Sent: Wednesday, January 10, 2007 11:37 AM
To: LTC KACC-Ft Meade
Cc: COL KACC-Ft Meade; OTSG
Subject: FW: Infant Botulism (UNCLASSIFIED)

Attachments: EXSUM Infantile Botulism at Fort Meade.doc

EXSUM Infantile Botulism at Fort Meade.doc

Classification: UNCLASSIFIED
Caveats: NONE

LTC__

COL__ called and left a voice mail message for you. I asked him to author a prelim EXSUM with information that ___ at WRAMC provided us. We were informed through Public Affairs channels at OTSG that this was an issue.

Attached is the EXSUM we sent to OPS 21. Would you please provide updated EXSUMs with more detail, following your investigation.

MC

Proponentcy for Preventive Medicine
Office of the Surgeon General
(703)-__ DSN: 761

Classification: UNCLASSIFIED
Caveats: NONE
UNCLASSIFIED

EXECUTIVE SUMMARY

10 JAN 07

(U) INFANT BOTULISM CASE AT FORT MEADE. (U) (DASG-PPM-NC) This is a self-generated EXSUM. These two cases apparently live in close proximity to each other and there is some concern that these two cases may be related. Additional information will be provided when available. PREPARE MEMO.

COL [REDACTED]/DASG-PPM-NC/(703) [REDACTED]

APPROVED BY: COL [REDACTED]

UNCLASSIFIED
From: WRAMC-Wash DC
Sent: Wednesday, January 10, 2007 7:13 AM
To: KACC-Ft Meade
Subject: Call from COL Cummings last night at home

COL Cummings called me at home last night, you may wish to talk to me about that.
Please see e-mail message below. This is the message that will be used to prep the press release. Please review and provide comments/changes/etc to LTC [REDACTED] (LTC [REDACTED] in GAL). We have a meeting at 1700 hrs with the garrison and, if possible, need this back before then.

"Army Strong--One Team"

COL, MS

Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) [REDACTED]
DSN 622-

-----Original Message-----
From: [REDACTED] army.mil
Sent: Wednesday, January 10, 2007 2:12 PM
To: army.mil
Subject: FW: NR_Botulism.doc

Ma'am:

Please make the changes that I have annotated below (e.g. substitute my quote with a quote from the subject matter expert and we made some changes to the wording of the para which describes the statistics and provided a phone number for personnel to contact their health care provider (but this just applies to members of the community enrolled at Ft Meade).)

Thank you,

"Army Strong--One Team"

COL, MS

Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) [REDACTED]
DSN 622-

-----Original Message-----
From: [REDACTED] army.mil
Sent: Wednesday, January 10, 2007 1:14 AM
To: [REDACTED] army.mil
Subject: NR_Botulism.doc

Here is the release. Make changes and send back your comments. Thanks.
INFANT BOTULISM FOUND IN TWO CHILDREN AT FORT MEADE

FORT GEORGE G. MEADE, Md., - Walter Reed Army Medical Center has identified two cases of infant botulism at Fort Meade since Oct. 2006. One infant has recovered while the other infant is being treated by doctors at Walter Reed Army Medical Center.

The cause is currently under investigation by the Preventive Medicine Services at Kimbrough Ambulatory Care Center on Fort Meade.

LTC Sharon Cole-Wainwright, Chief of Preventive Medicine at Kimbrough Ambulatory Care Center said, "Infant botulism is a treatable condition associated with the ingestion of Clostridium botulinum bacteria found naturally in soils and in some contaminated food products. It would be premature to speculate about a particular source because we are still trying to conduct our investigation."

There are approximately 100 cases of infant botulism reported annually in the U.S. This normally affects children under the age of 6 months of age, boys and girls equally. Symptoms may include constipation, listlessness, difficulty swallowing a weak cry, and a loss of appetite (not sucking well). If parents are concerned, they should contact their health care provider at (301) 677-8606.

Col. Kenneth McCreedy, Installation Commander. "We are always concerned about all service members and their families' health issues. It is great that all agencies are working together to ensure our community remains a safe environment for everyone concerned."

EDITOR'S NOTE: For more information contact Jennifer Downing, Media Relations Officer, at
UNCLASSIFIED

EXECUTIVE SUMMARY

10 JAN 07

(U) INFANT BOTULISM CASE AT FORT MEADE. (U) (DASG-PPM-NC) This is a self-generated EXSUM.

These two cases apparently live in close proximity to each other and there is some concern that these two cases may be related. Additional information will be provided when available. PREPARE MEMO.

COL [REDACTED] DASG-PPM-NC

APPROVED BY: [REDACTED]

UNCLASSIFIED
From: USACHPPM
Sent: Wednesday, January 10, 2007 3:28 PM
To: COL USACHPPM; LTC WRAIR-Wash DC; MAJ USACHPPM-Wash DC; Ms USACHPPM; LTC KACC-Ft Meade; LTC USACHPPM
Cc: Mr USACHPPM; MAJ USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

Importance: High
Attachments: Botulism Press Release--Ft Meade

Just got off the phone with ( ) and her staff regarding the two cases of infant botulism from the Ft Meade community.

They're requesting our assistance to address the issue and have requested an EPICON.

A big concern is the risk of infection from exposure to contaminated soil. There's construction near the housing area where the two cases reside that's created a large debris pile of soil, concrete, etc. Local residents and the Ft Meade Garrison Command are very concerned that this may be the cause of the two infections.

There's been interest from outside medical organizations to help respond to this.

The POC at KACC is the Chief of PM, (email above, ). Please ensure all communication is routed thru her so that we have a single message.

They're sending up a draft press release (attached) and botulism fact sheet that need to be reviewed NLT 1700 today. They're also looking for assistance drafting an article for the Ft Meade newspaper to help inform the community. This will require RISKCOM support. Coordinate w/DEDS ( in the office today.)

Please copy the USACHPPM-EOC w/all emails.

DEDS should prepare a daily consolidated exsum for the CG until this matter is over.

-----Original Message-----
From: COL USACHPPM
Sent: Wednesday, January 10, 2007 11:20 AM
To: LTC KACC-Ft Meade; LTC USACHPPM; MAJ USACHPPM-Wash DC; MAJ USACHPPM-Wash DC; Ms USACHPPM
Cc: Mr USACHPPM; Mr USACHPPM; COL USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)

Heads up. No request for direct assist from us at this point. Has hit as a PAO issue.

-----Original Message-----
From: OTSG
We've sent this forward to leadership as a prelim EXSUM, pending further information out of Ft. Meade.
From: KACC-Ft Meade
Sent: Wednesday, January 10, 2007 4:13 PM
To: Mr USACHPPM
Cc: KACC-Ft Meade
Subject: RE: Infant Botulism Fact Sheet--Ft Meade
Signed By: 1005829590
Attachments: INFANT_BOTULISM_FACT_SHEET2 (2).doc

"Army Strong--One Team"

COL, MS

KACC-Ft Meade

Here is a fact sheet for use by the residents of the community. Please have folks in Risk Com take a look and return to LTC Wainwright.

"Army Strong--One Team"

COL, MS

KACC-Ft Meade

Please see e-mail message below. This is the message that will be used to prep the press release. Please review and provide comments/changes/etc to (in GAL). We have a meeting at 1700 hrs with the garrison and, if possible, need this back before then.
Ma'am:

Please make the changes that I have annotated below (e.g. substitute my quote with a quote from the subject matter expert and we made some changes to the wording of the para which describes the statistics and provided a phone number for personnel to contact their health care provider (but this just applies to members of the community enrolled at Ft Meade.).

Thank you,

COL

"Army Strong--One Team"

COL, MS

Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) 372-1309
DSN 622-

-----Original Message-----
From: COL KACC-Ft Meade
Sent: Wednesday, January 10, 2007 2:12 PM
To: [mailto:]
Subject: FW: NR_Botulism.doc

Here is the release. Make changes and send back your comments. Thanks.

FORT GEORGE G. MEADE
NEWS RELEASE
PUBLIC AFFAIRS OFFICE
4550 PARADE FIELD LANE
FORT MEADE, MD 20755
www.ftmeade.army.mil
FOR IMMEDIATE RELEASE

Infant Botulism Found in Two Children at Fort Meade

FORT GEORGE G. MEADE, Md., - Walter Reed Army Medical Center has identified two cases of infant botulism at Fort Meade since Oct. 2006. One infant has recovered while the other infant is being treated by doctors at Walter Reed Army Medical Center.

The cause is currently under investigation by the Preventive Medicine Services at Kimbrough Ambulatory Care Center on Fort Meade.

LTC Preventive Medicine at Kimbrough Ambulatory Care Center said, "Infant botulism is a treatable condition associated with the ingestion of Clostridium botulinum bacteria found naturally in soils and in some contaminated food products. It would be premature to speculate about a particular source because we are still trying to conduct our investigation."

There are approximately 100 cases of infant botulism reported annually in the U.S. This normally affects children under the age of 6 months of age, boys and girls equally. Symptoms may include constipation, listlessness, difficulty swallowing a weak cry, and a loss of appetite (not sucking well). If parents are concerned, they should contact their health care provider at (301) 677-8606.

Col. Installation Commander. "We are always concerned about all service members and their families' health issues. It is great that all agencies are working together to ensure our community remains a safe environment for everyone concerned."

-30-

EDITOR'S NOTE: For more information contact Jennifer Downing, Media Relations Officer, at (301) 677-1496 or Summer Barkley, Media Relations Director, at (301) 677-1436.
Good day

I work in CHPPM's Health Risk Communication Program and have provided input to the draft press release below in ALL CAPS. Based on EPICON responses I've worked in the past, I've inserted some suggested statements and questions for you to consider.

I'll move on to the draft fact sheet now and will forward that back to you ASAP.

-----Original Message-----
From: COL KACC-Ft Meade
Sent: Wednesday, January 10, 2007 3:18 PM
To: Mr USACHPPM
Subject: Botulism Press Release--Ft Meade

Please see e-mail message below. This is the message that will be used to prep the press release. Please review and provide comments/changes/etc to LTC (LTC- in GAL). We have a meeting at 1700 hrs with the garrison and, if possible, need this back before then.

"Army Strong--One Team"

COL, MS

Ft Meade -EDDAC and
Kimbrough Ambulatory Care Center
(301) DSN 622-

-----Original Message-----
From: COL KACC-Ft Meade
Sent: Wednesday, January 10, 2007 2:12 PM
To: Mr USACHPPM
Subject: FW: NK_Botulism.doc

Ma'am:

Please make the changes that I have annotated below (e.g. substitute my quote with a quote from the subject matter expert and we made some changes to the wording of the para which describes the statistics and provided a phone number for personnel to contact their health care provider (but this just applies to members of the community enrolled at Ft Meade.)

Thank you,

"Army Strong--One Team"
FORT GEORGE G. MEADE
NEWS RELEASE
PUBLIC AFFAIRS OFFICE
4550 PARADE FIELD LANE
FORT MEADE, MD 20755
www.ftmeade.army.mil

Jan. 10, 2006
Release # 070110

FOR IMMEDIATE RELEASE

Infant Botulism Found in Two Children at Fort Meade

FORT GEORGE G. MEADE, Md., - Walter Reed Army Medical Center has identified two cases of infant botulism at Fort Meade since Oct. 2006. One infant has recovered while the other infant is being treated by doctors at Walter Reed Army Medical Center. THE INFANTS, BOTH UNDER THE AGE OF 6 MONTHS???, WERE DIAGNOSED AND TREATED AT WALTER REED BECAUSE RESIDENTS AT FORT MEADE RECEIVE FULL MEDICAL TREATMENT THERE. (SOME WHO READ THIS WILL LIKELY WONDER WHY THEY WEREN'T TREATED AT FORT MEADE)

The cause is currently under investigation by the Preventive Medicine Services at Kimbrough Ambulatory Care Center on Fort Meade. IN ADDITION, MEDICAL STAFF AT BOTH KIMBROUGH AND WALTER REED ARE RECEIVING/ HAVE RECEIVED(?) ADDITIONAL TRAINING ON THIS DISEASE TO INCREASE AWARENESS????

Preventive Medicine at Kimbrough Ambulatory Care Center said, "WHILE THE NAME OF THE DISEASE CAN BE FRIGHTENING, infant botulism is a treatable condition associated with SWALLOWING OR EATING the botulinum bacteria found naturally in soils and in some contaminated food products. It IS premature to speculate about a particular source UNTIL THIS investigation IS COMPLETE."
THE DISEASE IS RARE; there are approximately 100 cases of infant botulism reported annually in the U.S. This normally affects children under the age of 6 months of age, boys and girls equally. ACCORDING TO THE NATIONAL INSTITUTES OF HEALTH, symptoms may include constipation, listlessness, difficulty swallowing a weak cry, and a loss of appetite (not sucking well). If parents are concerned, they should contact their health care provider at (301) .

Installation Commander. "We are COMMITTED TO PROTECTING THE HEALTH OF all service members and families AT FORT MEADE. It is great that all agencies are working together to ensure our community remains a safe environment for everyone."

FOR MORE INFORMATION, PLEASE CONTACTWHO? (THIS PART IS CRITICAL -- READERS NEED TO KNOW WHO THEY CAN CALL IF THEY WANT TO TALK ABOUT THIS IN MORE DETAIL)

-30-

EDITOR'S NOTE: For more information contact Media Relations or Media Relations at (301) .
Please make sure that this version is the one that I use--I have seen a couple of versions floating around now--each with incorrect information. This one looks good!

"Army Strong--One Team"

COL, MS

Ft Meade MEDDAC and
Kimborn Ambulatory Care Center
(301)...
DSN 622-

-----Original Message-----
From: LTC KACC-Ft Meade
Sent: Wednesday, January 10, 2007 4:33 PM
To: COL KACC-Ft Meade
Subject: RE: Botulism Press Release--Ft Meade

Please

-----Original Message-----
From: Ms USACHPPM
Sent: Wednesday, January 10, 2007 4:22 PM
To: LTC KACC-Ft Meade
Cc: Mr USACHPPM; MAJ USACHPPM;
USACHPPM-EOC;
Mr USACHPPM
Subject: FW: Botulism Press Release--Ft Meade
Importance: High

Good day LTC:

I work in CHPPM's Health Risk Communication Program and have provided input to the draft press release below in ALL CAPS. Based on EPICON responses I've worked in the past, I've inserted some suggested statements and questions for you to consider.

I'll move on to the draft fact sheet now and will forward that back to you ASAP.

-----Original Message-----
From: COL KACC-Ft Meade
Sent: Wednesday, January 10, 2007 3:18 PM
To: Mr USACHPPM
Subject: Botulism Press Release--Ft Meade

Please see e-mail message below. This is the message that will be used to prep the press release. Please review and provide comments/changes/etc to me in GAL). We have a meeting at 1700 hrs with the garrison and, if possible, need this back before then.
"Army Strong--One Team"

COL, MS

Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) DSN 622-

-----Original Message-----
From: COL KACC-Ft Meade
Sent: Wednesday, January 10, 2007 2:12 PM
To: Army.mil
Subject: FW: NR_Botulism.doc

Ma'am:

Please make the changes that I have annotated below (e.g. substitute
my quote with a quote from the subject matter expert and we made some changes
to the wording of the para which describes the statistics and provided a
phone number for personnel to contact their health care provider (but this
just applies to members of the community enrolled at Ft Meade.)

Thank you,

"Army Strong--One Team"

COL, MS

Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) DSN 622-

-----Original Message-----
To: KACC-Ft Meade
Subject: NR_Botulism.doc

Here is the release. Make changes and send back your comments. Thanks.

FORT GEORGE G. MEADE
NEWS RELEASE
PUBLIC AFFAIRS OFFICE
4550 PARADE FIELD LANE
FORT MEADE, MD 20755
www.ftmeade.army.mil
FOR IMMEDIATE RELEASE
FYI corrections from [REDACTED]: are you okay with these to send to Melanie Moore...

Infant Botulism Found in Two Children at Fort Meade

FORT GEORGE G. MEADE, Md. - Walter Reed Army Medical Center has identified two cases of infant botulism at Fort Meade since Oct. 2006. One infant has recovered while the other infant is being treated by doctors at Walter Reed Army Medical Center. THE INFANTS, BOTH UNDER THE AGE OF 6 MONTHS, WERE DIAGNOSED AND TREATED AT WALTER REED BECAUSE RESIDENTS AT FORT MEADE RECEIVE FULL MEDICAL TREATMENT THERE.

The cause is currently under investigation by the Preventive Medicine Services at Kimbrough Ambulatory Care Center on Fort Meade. In addition, medical staff at both Kimbrough and Walter Reed are receiving additional training on the disease to increase awareness.

Preventive Medicine at Kimbrough Ambulatory Care Center said, while the name of the disease can be frightening, infant botulism is a treatable condition associated with SWALLOWING OR EATING the botulinum bacteria found naturally in soils and in some contaminated food products. It IS premature to speculate about a particular source until the investigation is complete.

The disease is rare, there are approximately 100 cases of infant botulism reported annually in the U.S. This normally affects children under the age of 6 months of age, boys and girls equally. According to the National Institutes of Health, symptoms may include constipation, listlessness, difficulty swallowing a weak cry, and a loss of appetite (not sucking well). If parents are concerned, they should contact their health care provider at (301) 677-8606.

Col. [REDACTED], Installation Commander. "We are COMMITTED TO PROTECTING THE HEALTH OF all service members and families AT FORT MEADE. It is great that all agencies are working together to ensure our community remains a safe environment for everyone."

FOR MORE INFORMATION, PLEASE CONTACT WHO???? (THIS PART IS CRITICAL -- READERS NEED TO KNOW WHO THEY CAN CALL IF THEY WANT TO TALK ABOUT THIS IN MORE DETAIL)

-30-

EDITOR'S NOTE: For more information contact [REDACED] Media Relations at (301) 677-8606 or [REDACED] Media Relations.
KACC-Ft Meade

From: [redacted]  
Sent: Wednesday, January 10, 2007 4:45 PM  
To: [redacted]  
Cc: [redacted]  
Subject: Signed By: [redacted]  

Actually, the last sentence of the first para is incorrect. I am not sure why this was added but it is incorrect. We'll make that change. All else looks good.

"Army Strong--One Team"

COL, MS

Ft Meade MEDDAC and
Kimbro Ambulatory Care Center
(301) [redacted]
DSN 622-

-----Original Message-----
From: [redacted]
Sent: Wednesday, January 10, 2007 4:22 PM
To: LTC KACC-Ft Meade
Cc: Mr USACHPPM; MAJ USACHPPM; Mr USACHPPM
Subject: FW: Botulism Press Release--Ft Meade
Importance: High

Good day:

I work in CHPPM's Health Risk Communication Program and have provided input to the draft press release below in ALL CAPS. Based on EPICON responses I've worked in the past, I've inserted some suggested statements and questions for you to consider.

I'll move on to the draft fact sheet now and will forward that back to you ASAP.

-----Original Message-----
From: COL KACC-Ft Meade
Sent: Wednesday, January 10, 2007 3:18 PM
To: [redacted]
Subject: Botulism Press Release--Ft Meade

Please see e-mail message below. This is the message that will be used to prep the press release. Please review and provide comments/changes/etc to [redacted] in GAL. We have a meeting at 1700 hrs with the garrison and, if possible, need this back before then.

"Army Strong--One Team"
From: KACC-Ft Meade
Sent: Wednesday, January 10, 2007 2:12 PM
To: melanie.moore@us.army.mil
Subject: FW: NR_Botulism.doc

Ma'am:

Please make the changes that I have annotated below (e.g. substitute my quote with a quote from the subject matter expert and we made some changes to the wording of the para which describes the statistics and provided a phone number for personnel to contact their health care provider (but this just applies to members of the community enrolled at Ft Meade.).

Thank you,
COL

"Army Strong--One Team"

COL, MS

---Original Message-----
From: [mailto:4...]
Sent: Wednesday, January 10, 2007 11:11 AM
To: COL; COL KACC-Ft Meade
Subject: NR_Botulism.doc

Here is the release. Make changes and send back your comments. Thanks.

---

FORT GEORGE G. MEADE

NEWS RELEASE

PUBLIC AFFAIRS OFFICE

4550 PARADE FIELD LANE

FORT MEADE, MD 20755

www.ftmeade.army.mil

Jan. 10, 2006
Release # 070110
FOR IMMEDIATE RELEASE
FYI corrections from [Redacted]: are you okay with these to send to [Redacted]

Infant Botulism Found in Two Children at Fort Meade

FORT GEORGE G. MEADE, Md., - Walter Reed Army Medical Center has identified two cases of infant botulism at Fort Meade since Oct. 2006. One infant has recovered while the other infant is being treated by doctors at Walter Reed Army Medical Center. THE INFANTS, BOTH UNDER THE AGE OF 6 MONTHS, WERE DIAGNOSED AND TREATED AT WALTER REED BECAUSE RESIDENTS AT FORT MEADE RECEIVE FULL MEDICAL TREATMENT THERE.

The cause is currently under investigation by the Preventive Medicine Services at Kimbrough Ambulatory Care Center on Fort Meade. In addition, medical staff at both Kimbrough and Walter Reed are receiving additional training on the disease to increase awareness.

LTC [Redacted], Preventive Medicine at Kimbrough Ambulatory Care Center said, while the name of the disease can be frightening, infant botulism is a treatable condition associated with SWALLOWING OR EATING the botulinum bacteria found naturally in soils and in some contaminated food products. It IS premature to speculate about a particular source until the investigation is complete.

The disease is rare, there are approximately 100 cases of infant botulism reported annually in the U.S. This normally affects children under the age of 6 months of age, boys and girls equally. According to the National Institutes of Health, symptoms may include constipation, listlessness, difficulty swallowing a weak cry, and a loss of appetite (not sucking well). If parents are concerned, they should contact their health care provider at (301) 877-8606.

Col. [Redacted], Installation Commander. "We are COMMITTED TO PROTECTING THE HEALTH OF all service members and families AT FORT MEADE. It is great that all agencies are working together to ensure our community remains a safe environment for everyone."

FOR MORE INFORMATION, PLEASE CONTACT WHO??? (THIS PART IS CRITICAL -- READERS NEED TO KNOW WHO THEY CAN CALL IF THEY WANT TO TALK ABOUT THIS IN MORE DETAIL)

-30-

EDITOR'S NOTE: For more information contact [Redacted], Media Relations Director, at (301) 677-1436.
We have revised versions of both the press release and fact sheets that we will bring to the 1700 hrs meeting and will forward the electronic version immediately before or right after the meeting.

is the action officer for this. No need for me to review and approve as she is the competent medical authority for this issue. I am confident in her ability to provide you with the most accurate information! We aim to please!

COL

"Army Strong--One Team"

rt Meade MEDDAC and Kimbrough Ambulatory Care Center
(301)
DSN 622-

----Original Message-----
From: [mailto:army.mil]
Sent: Wednesday, January 10, 2007 3:17 PM
To: COL KACC-Ft Meade
Subject: BotulismFactSheet.rtf

Here is the information sheet that we got this morning. Believe I need you to OK it as well. Thanks.

INFANT BOTULISM FACT SHEET

There are approximately 100 cases of botulism reported annually in the U.S. Approximately 75% of these are infant botulism. It normally affects infants less than 6 months of age. It affects boys and girls equally.

The bacteria (Clostridium botulinum) that causes Infant botulism is transmitted by spores which germinate and produce toxins in the intestines of the infant. It is not spread from person to person. The risk factors and vehicles of transmission can either be environmental or through ingestion. However, the transmission remains unclear in most cases. The most common routes of transmissions to infants are food and dust. Honey is also a source and should not be fed to infants less than 1 year of age.

What are the symptoms of Infant Botulism?

* constipation
poor feeding and weak suck
- weak cry
- loss of head control
- difficulty swallowing and pooling of secretions
- loss of head control
- floppy appearance or "floppy baby"
- generalized weakness
- breathing difficulties

How is Infant Botulism diagnosed?
istool specimen and testing of possible found source.

How is Infant Botulism treated?
Prompt diagnosis and treatment is key!
FDA approved - BabyBIG it binds to any free toxin in the body and prevents further damage. Only available through the California Health Department at a cost of $45,000 a treatment. Low cost compared to hospitalization of infant for months and expect full recovery slowly.

How can I prevent Infant Botulism?
* No honey to infants less than 1 year of age
* strict handwashing
* toy cleaning and particularly items that infants place in their mouths
* spores are destroyed by boiling
* proper preparation of canned foods (foods preserved or canned at home)
* proper preparation of foods (boiling and cooking)
* avoid cans of food/formula with dents, bulging or rusting
* avoid construction sites and high dust areas

For further information contact Kimbrough Ambulatory Care Clinic Preventive Medicine Services (301) 677-8661.
Ma'am, Mr. requested I share the message below I sent to . Some of the data may be useful. Let us know if you need something specific.

VR,

MAJ

Population Health Outcomes DEDS, USACHPPM APG, MD 21010-5403

-----Original Message-----
From: Mr USACHPPM
Sent: Wednesday, January 10, 2007 4:20 PM
To: MAJ USACHPPM
Cc: 'usachppm.eoc@us.army.mil'
Subject: RE: Infant Botulism (UNCLASSIFIED)

-----Original Message-----
From: MAJ USACHPPM
Sent: Wednesday, January 10, 2007 4:15 PM
To: COL USACHPPM
Cc: usachppm.eoc@us.army.mil
Subject: FW: Infant Botulism (UNCLASSIFIED)

-----Original Message-----
From: MAJ USACHPPM
Sent: Wednesday, January 10, 2007 4:08 PM
To: COL USACHPPM
Cc: LMI; USACHPPM-Wash
DC
Subject: FW: Infant Botulism (UNCLASSIFIED)

Sir,
Just got the tasker so I'll send this anyway.

Here is what we currently have as background:

During my conversation with (infection control WRAMC) he stated that as of last Friday the Maryland State Epidemiologist Dr. Blythe reported a total of 3 Maryland infant botulism cases (excluding 2 FT Meade cases). Maryland 2006 cases were in Silver Springs, Belair and Northeast. Dr. Blythe is interested in coming to FT Meade to
investigate with local PM chief (CHPPM too?) due to the fact that the cases lived within a few houses of each other on base and concerns reference a construction site in the housing area. First case was 9 month old (don't know if was in on post child care or not) and second case was 2 months old (was in on post child care center).

In the United States an average of 110 cases of botulism are reported each year. Of these, approximately 25% are foodborne, 72% are infant botulism, and the rest are wound botulism. In 2004 the CDC reported Maryland had 5 cases of infant botulism, (0 foodborne or wound cases in 2004).

Search of M2 inpatient records found 3 cases among infants under 1 yea admitted to an MTF with 14 cases admitted to non-MHS facilities. We did find one case in OCT 06 at WRAMC (**below):

Here are the case summaries from M2 from 2002 to November 06:

<table>
<thead>
<tr>
<th>Calendar year</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>3</td>
</tr>
<tr>
<td>2003</td>
<td>3</td>
</tr>
<tr>
<td>2004</td>
<td>3</td>
</tr>
<tr>
<td>2005</td>
<td>1</td>
</tr>
<tr>
<td>2006</td>
<td>7*</td>
</tr>
</tbody>
</table>

*not counting WRAMC 31 DEC Case

3 inpatient cases within MHS facilities (SIDR file)

Case 1: Admission Date 12/11/2005; Discharged 12/28/2005; -4 month old WM; dependent of AD Army; Admitted to Madigan AMC, Ft. Lewis
Case 2: Admission Date 04/02/2006; Discharged 04/10/2006; -5 month old WF; dependent of AD Army; Admitted to Madigan AMC, Ft. Lewis
**Case 3: Admission Date 10/03/2006; Discharged 10/20/2006; -7 month old WM; dependent of AD Marine; Admitted to Walter Reed

14 cases seen outside MHS facilities (catchment area name provided from Purchased Care - I file)

We are standing by for further instruction on this.

Original Message-----
From: MAJ USACHPPM
Sent: Wednesday, January 10, 2007 12:12 PM
To: Mr LMIF
Cc: CPT USACHPPM-Wash DC; COL USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)

All,

Note two attachments. One confirmed case 31 DEC 06 and possible "media" case in OCT 06. CPT is running a query for intestinal botulism (formerly classified as infant botulism) cases from inpatient data using discharge diagnosis (ICD-9 005.1). This is also a reportable event and, other than the 31 DEC case, he says none have been seen for years (he'll provide a list of cases w/in 24 hours).
Try to run a quick query to look at overall rates in DoD focusing on all inpatient botulism cases. Also, during the EPI chiefs meeting there was a discussion of two possible additional off-base (Fort Meade area) cases so let's see if we can find anything on those as well (check EPI-X and any other sources you can get).

Prepare a short information paper for our risk communicators on infant botulism and look up national incidence rates from CDC for the past few years as well as any recent cases in the U.S. and especially in the DC/Fort Meade area.

POC for our confirmed case is [redacted] at WRAMC and I have a call in with him for any additional details.

Thanks,

-----Original Message-----
From: [redacted]
Sent: Wednesday, January 10, 2007 11:20 AM
To: [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]
Cc: [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]
Subject: FW: Infant Botulism (UNCLASSIFIED)

Heads up. No request for direct assist from us at this point. Has hit as a PAO issue.

-----Original Message-----
From: [redacted]
Sent: Wednesday, January 10, 2007 11:12 AM
To: [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]
Subject: FW: Infant Botulism (UNCLASSIFIED)

We've sent this forward to leadership as a prelim EXSUM, pending further information out of Ft. Meade.
As requested..... Please reply to all as I've copied my home email.

---Original Message-----
From: Lt USACHPPM
Sent: Wednesday, January 10, 2007 4:17 PM
To: Ms USACHPPM
Cc: MAJ USACHPPM
Subject: FW: Infant Botulism Fact Sheet--Ft Meade

---Original Message-----
From: COL KACC-Ft Meade
Sent: Wednesday, January 10, 2007 4:13 PM
To: Ms USACHPPM
Cc: MAJ USACHPPM
Subject: RE: Infant Botulism Fact Sheet--Ft Meade

"Army Strong--One Team"

COL, MS
Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) 
DSN 622-

---Original Message-----
From: COL KACC-Ft Meade
Sent: Wednesday, January 10, 2007 3:32 PM
To: Ms USACHPPM
Cc: LTC KACC-Ft Meade
Subject: RE: Infant Botulism Fact Sheet--Ft Meade

Here is a fact sheet for use by the residents of the community. Please have folks in Risk Com take a look and return to
Laurie

"Army Strong--One Team"

COL, MS

Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301)___
DSN 622--

----Original Message-----
From: COL KACC-Ft Meade
Sent: Wednesday, January 10, 2007 3:18 PM
To: Mr USACHPPM
Subject: Botulism Press Release--Ft Meade

Please see e-mail message below. This is the message that will be used to prep the press release. Please review and provide comments/changes/etc to LTC (LTC in GAL). We have a meeting at 1700 hrs with the garrison and, if possible, need this back before then.

"Army Strong--One Team"

COL, MS

Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301)___
DSN 622--

----Original Message-----
From: COL KACC-Ft Meade
Sent: Wednesday, January 10, 2007 2:12 PM
To: js.army.mil
Subject: FW: NK_Hotulism.doc

Ma'am:

Please make the changes that I have annotated below (e.g. substitute my quote with a quote from the subject matter expert and we made some changes to the wording of the para which describes the statistics and provided a phone number for personnel to contact their health care provider (but this just applies to members of the community enrolled at Ft Meade.))

Thank you,

COL

"Army Strong--One Team"

COL, MS

Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301)___
DSN 622--

----Original Message-----
From: [mailto: my.mil]
Sent: Wednesday, January 10, 2007 11:11 AM
Infant Botulism Found in Two Children at Fort Meade

FORT GEORGE G. MEADE, Md., - Walter Reed Army Medical Center has identified two cases of infant botulism at Fort Meade since Oct. 2006. One infant has recovered while the other infant is being treated by doctors at Walter Reed Army Medical Center.

The cause is currently under investigation by the Preventive Medicine Services at Kimbrough Ambulatory Care Center on Fort Meade.

LTC Preventive Medicine at Kimbrough Ambulatory Care Center said, "Infant botulism is a treatable condition associated with the ingestion of Clostridium botulinum bacteria found naturally in soils and in some contaminated food products. It would be premature to speculate about a particular source because we are still trying to conduct our investigation."

There are approximately 100 cases of infant botulism reported annually in the U.S. This normally affects children under the age of 6 months of age, boys and girls equally. Symptoms may include constipation, listlessness, difficulty swallowing a weak cry, and a loss of appetite (not sucking well). If parents are concerned, they should contact their health care provider at (301) 677-8606.

Col. Installation Commander. "We are always concerned about all service members and their families' health issues. It is great that all agencies are working together to ensure our community remains a safe environment for everyone concerned."
EDITOR'S NOTE: For more information contact Jennifer Downing, Media Relations Officer, at (301) 677-1486 or Summer Barkley, Media Relations Director, at (301) 677-1436.
CHPPM requested I send them an official request for support. This is what I sent to them.

"Army Strong--One Team"

COL, MS
Commanding
Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301)...
DSN 622-

-----Original Message-----
From: COL KACC-Ft Meade
Sent: Wednesday, January 10, 2007 6:26 PM
To: Mr USACHPPM; Mr USACHPPM
Subject: Request for EPICON Support to USAMEDDAC Ft Meade

Good Afternoon:

Request support from CHPPM to conduct an epidemiological investigation into the occurrence of two cases of infant botulism in two young residents (each less than 6 mos old) who reside on Ft Meade. Though the first case occurred in October 06 and the second case occurred in December 06, the fact that these two families reside in the same neighborhood and 5 houses apart leads me to believe there may be a relationship between these two cases and my public health professionals here require some assistance with the investigation.

One of the outcomes to the epidemiological investigation should include recommendations from CHPPM to the garrison commander and me concerning actions we need to take to minimize the risk of exposure to clostridium bacteria (particularly in our infant population) here on Ft Meade. We are in the midst of construction at many locations on the installation and most in close proximity to residential areas.

Additionally, I request that, as preliminary information is determined through the course of the investigation and you and your staff have requirements to inform the senior leadership of the MEDCOM/CTSG, that you "cc" me and keep me informed as you prepare EXSUMs and official communications concerning interim findings to your higher HQ. I will do the same.

My primary POC here is LTC (shown as only in global outlook). As always, thank you for your timely support to us and this great community. I look forward to working with you all!

Warm regards,

COL

"Army Strong--One Team"
Commanding
Ft. Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) 622-
DSN 622-
INFANT BOTULISM FACT SHEET
10 Jan 2007
Kimbrough Ambulatory Care Clinic Preventive Medicine Services
(301) 

Infant botulism (also known as intestinal botulism) is a rare and serious but treatable disease where Clostridium botulinum bacteria grow within a baby's digestive system. Contact is made through eating or swallowing bacterial spores found naturally in soils and in some contaminated food products. Most cases (94 percent) occur in babies 6 months-old and younger. Infant botulism affects boys and girls equally. There are approximately 100 cases of infant botulism reported annually in the United States.

Infant botulism is not spread from person to person. Children older than one year typically do not contract infant botulism because the Clostridium bacteria do not grow well in their intestines.

Contaminated honey is one possible food source and should not be fed to infants less than 1 year of age. Other possible sources include contaminated foods and dust.

What are the symptoms of Infant Botulism?
Any or all of the following:
• constipation
• poor feeding and a weak suck
• weak cry
• loss of head control
• difficulty swallowing
• excessive drooling
• floppy appearance or "floppy baby"
• generalized weakness
• breathing difficulties

How is Infant Botulism diagnosed?
A visit to your health care providers who will collect a stool specimen.

How is Infant Botulism treated?
Prompt diagnosis and treatment is key! Treatment is available through FDA-approved medicine. Expect complete recovery although the recovery is gradual -- usually weeks to 2 months with treatment and several months without treatment.

How can I prevent Infant Botulism?
- Wash hands frequently
- Avoid giving honey to infants less than 1 year of age
- Routine and frequent cleaning of toys -- particularly items that babies place in their mouths and those toys which have fallen on the ground or floor
- Through proper preparation of foods (boiling and cooking)
- Avoid cans of food/formula with dents or that are bulging or rusting
- Avoid locations with excessive dust and debris

Where can I get more information?

National Institutes of Health Infant Botulism:  

National Institutes of Health Botulism:  

Mayo Clinic Infant Botulism and Honey:  
http://www.mayoclinic.com/health/infant-botulism/HQ00854

-----Original Message-----
From: ms USACHPPM
Sent: Wednesday, January 10, 2007 5:07 PM
To: LTC KACC-Ft Meade; sd4330@aol.com
Cc: Mr USACHPPM; sd4330@aol.com
Subject: FW: Infant Botulism Fact Sheet--Ft Meade

As requested..... Please reply to all as I've copied my home email.

-----Original Message-----
From: Mr USACHPPM
Sent: Wednesday, January 10, 2007 4:17 PM
To: Ms USACHPPM
Cc: MAJ USACHPPM
Subject: FW: Infant Botulism Fact Sheet--Ft Meade

-----Original Message-----
From: COL KACC-Ft Meade
Sent: Wednesday, January 10, 2007 4:13 PM
To: Mr USACHPPM
Cc: LTC KACC-Ft Meade
Subject: RE: Infant Botulism Fact Sheet--Ft Meade

"Army Strong--One Team"

COL, MS
Commanding
Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301)
Here is a fact sheet for use by the residents of the community. Please have folks in Risk Com take a look and return to

"Army Strong--One Team"

COL, MS
Commanding
Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) 913-2010
DSN 622-

Please see e-mail message below. This is the message that will be used to prep the press release. Please review and provide comments/changes/etc to LTC (LTC in GAL). We have a meeting at 1700 hrs with the garrison and, if possible, need this back before then.

Laurie

"Army Strong--One Team"

COL, MS
Commanding
Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) 913-2010
DSN 622-

Ma'am:

Please make the changes that I have annotated below (e.g. substitute my quote with a quote from the subject matter expert and we made some changes to the wording of the para which describes the statistics and provided a phone number for personnel to contact their health care provider (but this just applies to members of the community enrolled at Ft Meade.)

Thank you.
Infant Botulism Found in Two Children at Fort Meade

FORT GEORGE G. MEADE, Md. - Walter Reed Army Medical Center has identified two cases of infant botulism at Fort Meade since Oct. 2006. One infant has recovered while the other infant is being treated by doctors at Walter Reed Army Medical Center.

The cause is currently under investigation by the Preventive Medicine Services at Kimbrough Ambulatory Care Center on Fort Meade.
There are approximately 100 cases of infant botulism reported annually in the U.S. This normally affects children under the age of 6 months of age, boys and girls equally. Symptoms may include constipation, listlessness, difficulty swallowing a weak cry, and a loss of appetite (not sucking well). If parents are concerned, they should contact their health care provider at (301) 677-8606.

Installation Commander. "We are always concerned about all service members and their families' health issues. It is great that all agencies are working together to ensure our community remains a safe environment for everyone concerned."

EDITOR'S NOTE: For more information contact or
EXECUTIVE SUMMARY

10 January 2007

(U) Command Critical Information Requirement, Kimbrough Ambulatory Care Center (KACC), FT MEADE, MD (EXSUM).

(U) Two cases of infant botulism have been confirmed at Ft Meade. The first case resides in the same neighborhood on Ft Meade, 5 houses apart. Their residential area is in close proximity to a construction site. Epidemiological investigation will primarily include public health and preventive medicine personnel from Ft Meade MEDDAC, WRAMC, and CHPPM with open lines of communication to Anne Arundel County and Maryland State Health Departments. KACC personnel have worked with Ft Meade PAO to prepare a press release, a fact sheet, and will participate in a town hall meeting during the week of 15 Jan 07. Health care providers at KACC and Walter Reed have been alerted to these cases to increase heightened awareness of symptoms.

COL [REDACTED], Commander, Fort Meade MEDDAC, and KACC

This communication and its attachments are confidential to the Military Health System, and to the intended recipient(s). Information contained in this communication may be subject to the provisions of the Privacy Act of 1974 and Health Insurance Portability and Accountability Act. If you have received this email in error, please advise the sender immediately and delete the entire message together with all attachments. All unintended recipients are hereby notified that any use, distribution, copying or any other action regarding this email is prohibited.
---Original Message---
From: COL OTSG
Sent: Wednesday, January 10, 2007 5:57 PM
To: Mr USACHPPM
Cc: Mr USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Thanks. I've also been keeping BG Cates in the loop, by providing him the EXSUM and the attached information paper.

---Original Message---
From: Mr USACHPPM
Sent: Wednesday, January 10, 2007 5:50 PM
To: Cates, Michael B BG USACHPPM
Cc: COL USACHPPM; Mr USACHPPM; MAJ USACHPPM; Ms USACHPPM; USACHPPM-EOC; COL OTSG; LTC CHPPM North-Ft Meade; Ms USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)

BG Cates,

FYI - We've been asked by Kimbrough ACC to assist them w/assessing and responding to two cases of Infant Botulism that were diagnosed in children who live w/in Family Housing at Ft Meade. Additional details are summarized in the PGPM EXSUM below.

There's been growing concern w/in the local Ft Meade community that these infections may be caused by ingestion of contaminated soils from a construction debris pile adjacent to the family housing area.

RISKCOM has provided a review of a press release and fact sheet already. DEDS is preparing an EPICON to respond as required. DOHS, DEHE and CHPPM-North have been informed to be prepared to assist if required.
(U) INFANT BOTULISM CASE AT FORT MEADE (U) (DASG-PPM-NC) This is a self-writ.

These two cases apparently live in close proximity to each other and there is some concern that these two cases may be related. Additional information will be provided when available.

PREPARE MEMO

COL [REDACTED]/DASG-PPM-NC/ [REDACTED] APPROVED BY: COL [REDACTED]

--- Original Message ---
From: [REDACTED] COL USACHPPM
Sent: Wednesday, January 10, 2007 11:20 AM
To: [REDACTED] Ms USACHPPM; [REDACTED] MAJ USACHPPM; [REDACTED] LTC WRAIR-Wash DC; [REDACTED] MAJ USACHPPM-Wash DC; [REDACTED] Ms USACHPPM
Cc: [REDACTED] Mr USACHPPM; [REDACTED] Mr USACHPPM; [REDACTED] COL USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)

Heads up. No request for direct assist from us at this point. Has hit as a PAO issue.

--- Original Message ---
From: [REDACTED] COL OTSG
Sent: Wednesday, January 10, 2007 11:12 AM
To: [REDACTED] COL USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

We've sent this forward to leadership as a prelim EXSUM, pending further information out of Ft. Meade.

Classification: UNCLASSIFIED
Caveats: NONE
From: USACHPPM
Sent: Thursday, January 11, 2007 12:53 PM
To: Ms USACHPPM; Mr USACHPPM; COL USACHPPM; USACHPPM-EOC; LTC WRAIR-Wash DC; Maj USACHPPM-Wash DC; COL KACC-Ft Meade; LTC USACHPPM; LTC KACC-Ft Meade; LTC USACHPPM
Cc: LTC USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED
Attachments: INFANT_BOTULISM_FACT_SHEET2 (2).LG_DWW.doc

This is the last I saw of this coming out of DEDS. COL agreed with the changes.

---Original Message---
From: USACHPPM
Sent: Thursday, January 11, 2007 12:02 PM
To: Mr USACHPPM
Cc: LTC WRAIR-Wash DC; Ms USACHPPM; KACC-Ft Meade; USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

May I have a copy of the approved botulism fact sheet?

Thanks,

U.S. Army Center for Health Promotion & Preventive Medicine
army.mil

USACHPPM: Saving Lives & Resources—Prevention is the Key.

---Original Message---
From: USACHPPM
Sent: Wednesday, January 10, 2007 3:28 PM
To: COL USACHPPM; MR USACHPPM
Cc: Ms USACHPPM; LTC WRAIR-Wash DC; MAJ USACHPPM-Wash DC; COL KACC-Ft Meade; LTC USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

Importance: 

Just got off the phone with (CDR Kimbrough ACC) and her staff regarding the
two cases of infant botulism from the Ft Meade community.

They're requesting our assistance to address the issue and have requested an EPICON.

A big concern is the risk of infection from exposure to contaminated soil. There's construction near the housing area where the two cases reside that's created a large debris pile of soil, concrete, etc. Local residents and the Ft Meade Garrison Command are very concerned that this may be the cause of the two infections.

There's been interest from outside medical organizations to help respond to this.

The POC at KACC is the Chief of PM, LTC (email above). Please ensure all communication is routed thru her so that we have a single message.

They're sending up a draft press release (attached) and botulism fact sheet that need to be reviewed NLT 1700 today. They're also looking for assistance drafting an article for the Ft Meade newspaper to help inform the community. This will require RISKCOM support. Coordinate w/DEDS in the office today.)

Please copy the USACHPPM-EOC w/all emails.

DEDS should prepare a daily consolidated exsum for the CG until this matter is over.

-----Original Message-----
From: COL OTSG
Sent: Wednesday, January 10, 2007 11:20 AM
To: COL USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)

Heads up. No request for direct assist from us at this point. Has hit as a PAO issue.

-----Original Message-----
From: COL USACHPPM
Sent: Wednesday, January 10, 2007 11:12 AM
To: COL OTSG
Subject: FW: Infant Botulism (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

We've sent this forward to leadership as a prelim EXSUM, pending further information out of Ft. Meade.
INFANT BOTULISM FACT SHEET
10 Jan 2007
Kimbrough Ambulatory Care Clinic Preventive Medicine Services
(301) 677-8661

Infant botulism (also known as intestinal botulism) is a rare and serious but treatable disease where Clostridium botulinum bacteria grow within a baby's digestive system. Contact is made through eating or swallowing bacterial spores found naturally in soils and in some contaminated food products. Most cases (94 percent) occur in babies 6 months-old and younger. Infant botulism affects boys and girls equally. There are approximately 100 cases of infant botulism reported annually in the United States.

Infant botulism is not spread from person to person. Children older than one year typically do not contract infant botulism because the Clostridium bacteria do not grow well in their intestines.

Infected honey is one possible food source and should not be fed to infants less than 1 year of age. Other possible sources include contaminated foods and dust.

What are the symptoms of Infant Botulism?
Any or all of the following:
- constipation
- poor feeding and a weak suck
- weak cry
- loss of head control
- difficulty swallowing
- excessive drooling
- floppy appearance or "floppy baby"
- generalized weakness
- breathing difficulties

How is Infant Botulism diagnosed?
A visit to your health care providers who will collect a stool specimen.

How is Infant Botulism treated?
Prompt diagnosis and treatment is key! Treatment is available through FDA-approved medicine. Expect complete recovery although the recovery is gradual -- usually weeks to 2 months with treatment and several months without treatment.

How can I prevent Infant Botulism?
- Wash hands frequently
- Avoid giving honey to infants less than 1 year of age
- Routine and frequent cleaning of toys -- particularly items that babies place in their mouths and those toys which have fallen on the ground or floor
- Through proper preparation of foods (boiling and cooking)
- Avoid cans of food/formula with dents or that are bulging or rusting
- Avoid locations with excessive dust and debris

Where can I get more information?
National Institutes of Health Infant Botulism:

National Institutes of Health Botulism:

Mayo Clinic Infant Botulism and Honey:
From: Mr USACHPPM
Sent: Thursday, January 11, 2007 1:06 PM
To: Mr USACHPPM
Cc: Mr USACHPPM; COL USACHPPM; USACHPPM-EOC; LTC WRAIR-Wash DC; Ms USACHPPM; USACHPPM-Wash DC; LTC KACC-Ft Meade; Mr USACHPPM; LTC USACHPPM; LTC USACHPPM; LTC USACHPPM; LTC USACHPPM; LTC USACHPPM; LTC USACHPPM; LTC USACHPPM; LTC USACHPPM;

Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

This is the latest version.

-----Original Message-----
From: MAJ USACHPPM
Sent: Thursday, January 11, 2007 12:53 PM
To: COL USACHPPM; Mr USACHPPM
Cc: Mr USACHPPM; COL USACHPPM; USACHPPM-EOC; LTC WRAIR-Wash DC; Ms USACHPPM; MAJ USACHPPM-Wash DC; LTC KACC-Ft Meade; LTC USACHPPM; LTC USACHPPM; LTC USACHPPM; LTC USACHPPM; LTC USACHPPM; LTC USACHPPM; LTC USACHPPM; LTC USACHPPM;

Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

This is the last I saw of this coming out of DEDS. COL agreed with the changes.

-----Original Message-----
From: Ms USACHPPM
Sent: Thursday, January 11, 2007 12:02 PM
To: Mr USACHPPM
Cc: LTC WRAIR-Wash DC; Ms USACHPPM; MAJ USACHPPM-Wash DC; MAJ USACHPPM; LTC KACC-Ft Meade; LTC USACHPPM; LTC USACHPPM; LTC USACHPPM; LTC USACHPPM; LTC USACHPPM; LTC USACHPPM; LTC USACHPPM; LTC USACHPPM;

Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

May I have a copy of the approved botulism fact sheet?

Thanks,

U.S. Army Center for Health Promotion & Preventive Medicine

USACHPPM: Saving Lives & Resources--Prevention is the Key.
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED  
Importance: High

Just got off the phone with Kimbrough ACC) and her staff regarding the two cases of infant botulism from the Ft Meade community.

They're requesting our assistance to address the issue and have requested an EPICON.

A big concern is the risk of infection from exposure to contaminated soil. There's construction near the housing area where the two cases reside that's created a large debris pile of soil, concrete, etc. Local residents and the Ft Meade Garrison Command are very concerned that this may be the cause of the two infections.

There's been interest from outside medical organizations to help respond to this.

The POC at KACC is the (email above, please ensure all communication is routed thru her so that we have a single message.

- They're sending up a draft press release (attached) and botulism fact sheet that need to be reviewed NLT 1700 today. They're also looking for assistance drafting an article for the Ft Meade newspaper to help inform the community. This will require RISKCOM support. Coordinate w/DEDS in the office today.)

Please copy the USACHPPM-EOC w/all emails.

DEDS should prepare a daily consolidated eXSllm for the CG until this matter is over.

-----Original Message-----
From: COL USACHPPM
Sent: Wednesday, January 10, 2007 11:20 AM
To: Ms USACHPPM; MAJ USACHPPM; LTC WRAIR-Wash DC; MAJ USACHPPM-Wash DC; Ms USACHPPM
Cc: Mr USACHPPM; Mr USACHPPM; COL USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)

Heads up. No request for direct assist from us at this point. Has hit as a PAO issue.

-----Original Message-----
From: COL OTSG
Sent: Wednesday, January 10, 2007 11:12 AM
To: COL USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

We've sent this forward to leadership as a prelim EXSUM, pending further information out of Ft. Meade.

Classification: UNCLASSIFIED
Caveats: NONE
Please forward to the Fact Sheet and Press Release that we prepared last evening.

COL

"Army Strong--One Team"

COL, MS
Commanding
Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) DSN 622-

-----Original Message-----
From: C Ms USACHPPM
Sent: Thursday, January 11, 2007 12:02 PM
To: Mr USACHPPM
Cc: COL USACHPPM; LTC WRAIR-Wash DC; MAJ USACHPPM-Wash DC;
USACHPPM; LTC KACC-Ft Meade; LTC USACHPPM; COL USACHPPM;
KACC-Ft Meade; LTC USACHPPM; LTC USACHPPM

Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

May I have a copy of the approved botulism fact sheet?

Thanks,

U.S. Army Center for Health Promotion & Preventive Medicine

USACHPPM: Saving Lives & Resources--Prevention is the Key.

-----Original Message-----
From: Mr USACHPPM
Sent: Wednesday, January 10, 2007 3:28 PM
To: Mr USACHPPM
Cc: COL USACHPPM; COL USACHPPM;
USACHPPM-BOC; Ms USACHPPM; LTC WRAIR-Wash
DC; MS USACHPPM; LTC USACHPPM;
COL KACC-Ft Meade; LTC USACHPPM;

Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

Importance: High
Just got off the phone with CDR Kimbrough ACC) and her staff regarding the two cases of infant botulism from the Ft Meade community. They're requesting our assistance to address the issue and have requested an EPICON.

A big concern is the risk of infection from exposure to contaminated soil. There's construction near the housing area where the two cases reside that's created a large debris pile of soil, concrete, etc. Local residents and the Ft Meade Garrison Command are very concerned that this may be the cause of the two infections.

There's been interest from outside medical organizations to help respond to this.

The POC at KACC is the Chief of PM, LTC (email above, [redacted]). Please ensure all communication is routed thru her so that we have a single message.

They're sending up a draft press release (attached) and botulism fact sheet that need to be reviewed NLT 1700 today. They're also looking for assistance drafting an article for the Ft Meade newspaper to help inform the community. This will require RISKCOM support. Coordinate w/DEDS in the office today.)

Please copy the USACHPPM-EOC w/all emails.

DEDS should prepare a daily consolidated exsum for the CG until this matter is over.

-----Original Message-----
From: COL USACHPPM
Sent: Wednesday, January 10, 2007 11:20 AM
To: C Ms USACHPPM; MAJ USACHPPM; LTC WRAIR-Wash DC; MAJ USACHPPM-Wash DC; Ms USACHPPM
Cc: Mr USACHPPM; Mr USACHPPM; COL USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)

Heads up. No request for direct assist from us at this point. Has hit as a PAO issue.

-----Original Message-----
From: COL OTSG
Sent: Wednesday, January 10, 2007 11:12 AM
To: COL USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

We've sent this forward to leadership as a prelim EXSUM, pending further information out of Ft. Meade.
This is a copy of a telephone consult I will enter. I have no idea of how mother got my office number, and I think I made it clear that you were her primary point of contact. If I do get any more calls from her I will keep you advised.

11 Jan 2007 - 1100 hrs. Received telephone call from mother. Her first question was, "Are you part of the cover up"? When undersigned APHN asked "what coverup" she replied that the Garrison Commander, Fort Meade had been to her house yesterday, regarding the fact that her child had had Infant Botulism in October 2006, and now one of her nearby neighbors child has it too. The Garrison Commander had asked her not to go to the media, and mother indicated that she was intending to do so.

Mother went on to say that there was an open field very near her house with a lot of dirt, and since yesterday the area had been covered with a green substance. Mother further indicated that she had done some research and found that there were only about 100 cases of Infant botulism in the USA a year, and now there are two cases very near each other, why are there not Public Health people actively working on this issue at this minute. Undersigned APHN then discussed issues related to Infant Botulism with mother. The fact that there are so few cases each year, for example, Maryland has had three cases (before the Fort Meade 2 cases), since April 2006. One Silver Spring, MD, one in Bel Air, MD, and one in the town of Northeast, MD (Near the Delaware state line). While certain food products (i.e. honey) have been implicated, and the bacteria does live in the soil, so transmission through dust is a possibility. However, because there are so few cases, usually single cases, so that finding a means of transmission for baby botulism has not been done. This APHN indicated to mother that the Chief, Preventive Medicine, Fort Mead, LTC [redacted], was in the process of assembling a team of Public Health Officials (Maryland State, CDC, as well as Army) to study the cases at Fort Meade in depth. Mother then said, "Well, they will do their study, send the results to the Garrison Commander, and he will re-write it any way he wants". Undersigned APHN assured Mother that this Study would be an open Public Study, that the Garrison Commander would get a report, but the same report and findings would be directly available to anyone who is interested.

Mother asked why the "study group" had not arrived yet. Undersigned APHN suggested that she call LTC [redacted] and ask for details about the proposed study, and ask to be kept in the loop as the study goes along. Undersigned APHN suggested that she even offer to be a lay member of the study group, but that might not be possible because of HIPAA or other restrictions that would keep a lay person from being on the study group. Mother was satisfied with "being kept in the loop" although she thought it would be nice to be part of the study group.

Undersigned APHN then went on to inquire on how her baby was now, that he had read the notes from the Peds Clinic Visit 24 October 2006 after baby had been discharged from the hospital, and at that time was doing well. Mother indicated that she appreciated APHN's comment because that reminded her that he is due for some baby shots. APHN gave mother telephone no. for LTC [redacted] and his office and home numbers. The conversation ended on a very positive note.

11 Jan 2007 1130 hours Telephone Call to LTC [redacted] to review above note.

RN, MPH, APHN (EPIDEMIOLOGIST)
Army Public Health Epidemiologist
Walter Reed Army Medical Center
Office: DSN 662
Cell:
"Army Strong--One Team"

COL, MS
Commanding
Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) ~
DSN 622-

-----Original Message-----
From: COL KACC-Ft Meade
Sent: Thursday, January 11, 2007 2:40 PM
To: NARMC OPS
Cc: COL KACC-Ft Meade; LTC KACC-Ft Meade; LTC KACC-Ft Meade; COL WRAMC-Wash DC;
Mr KACC-Ft Meade
Subject: CCIR KACC 11 Jan 07

Attached you will find an EXSUM describing activities associated with the 2 cases of infant botulism on Ft Meade.
If you have any questions, please let me know.

"Army Strong--One Team"

COL, MS
Commanding
Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) ~
DSN 622-
EXECUTIVE SUMMARY

11 January 2007

(U) Command Critical Information Requirement, Kimbrough Ambulatory Care Center (KACC), FT MEADE, MD (EXSUM).
(U) This is a follow-up to the CCIR sent on 10 Jan 07. KACC has begun assembling a team of epidemiological investigators from Ft Meade MEDDAC, CHPPM, WRAMC and Anne Arundel County Health Department. Investigation into the cause of the 2 cases of infant botulism at Ft Meade has begun. The media, an NBC affiliate out of Baltimore—WBAL Channel 11 (local), met with the family of the child with the first case of infant botulism. Family believes the source disease is soil and debris pile adjacent to the family housing area. WBAL personnel interviewed the garrison commander and the Ft Meade MEDDAC Chief of Preventive Medicine, LTC[...], to ask questions about the cause of infant botulism, the mode of transmission of the disease, the occurrence of this disease on the installation, whether or not the installation would be investigating the cause of the disease, and any preliminary information available as to the cause of the disease in the two infants. The medical talking points consisted of 1) the health of the two infants is of primary concern and a full recovery is expected; 2) an investigation is ongoing with no preliminary information available at this time; epidemiological investigation involves collaboration with Army, local and state public health personnel. The news segment is to air at 1730 hrs this evening.

COL[...], Commander[...]
Email: [...][@us.army.mil]

APPROVED BY: COL[...], Commander, Fort Meade MEDDAC, and KACC
All,

We are working on questions and will have to you soon. Current status is COL and MAJ will travel to FT Meade and meet with Chief PM at Meade at 1600 today to discuss questionnaire and plan for tomorrow's launch of EPICON(-). COL P will provide list of needed resources after that meeting. Minimum going out tomorrow from CHPPM will be COL and myself. At 1000 hours tomorrow we will meet at Fort Meade PM office Maryland PH representative (possible state epidemiologist Dr. David Blythe), Meade staff (LTC and ) to interview parents of cases. Based on common exposures from those interviews COL will direct further actions (food, environment, Child development center...).

Fort Meade possible support arranged includes: Veterinary support cell, PHN (LTC and ) and CHPPM-North.

Should environmental sampling be required technical reachback includes: CHPPM lab support arrangement (LTC), CDC labs (partnership with DR. Steven Arnon) and Maryland Public health labs.

We are currently arranging a teleconference with CDC and other environmental exposure intestinal botulism experts, developing a questionnaire, reviewing risk communication/pao products and preparing to launch.

That is a short update from my vantage point.

As discussed, questions.

Let me know how I can assist.

Chief, Current Operations
DCSOPS, USACHPPM

-----Original Message-----
From: Mr USACHPPM
Sent: Thursday, January 11, 2007 2:38 PM
To: USACHPPM
Cc: Ms USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

As discussed, questions.

Let me know how I can assist.
To: Mr USACHPPM; USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

Just talked with Brian--he's working my request for info.

-----Original Message-----
From: LTC USACHPPM
Sent: Thursday, January 11, 2007 2:32 PM
To: LTC USACHPPM
Cc: Mr USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

I have about 10 questions that I forwarded to on epicon details that would likely be asked by inquiring media reps. They are attached. Need ops to provide accurate answers to all those that don't refer to the fact sheet, today if possible.

I've had no inquiries so far. Mr. told me he let Kimbrough know that we could respond to query if needed.

I have contacted the Fort Meade public affairs office requesting a copy of the final news release and letting them know that people from here will be supplementing Kimbrough for purposes of epidemiological investigation.

-----Original Message-----
From: LTC USACHPPM
Sent: Thursday, January 11, 2007 1:19 PM
To: Mr USACHPPM
Cc: Mr USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

If you have a question, please check with the EOC first. This way we prevent emails going to 15 people and 15 people responding and another 15 email messages and so on. Our leadership does not need to see every message string for simple staffing questions (that is why we have the EOC). This process also prevents those that are supporting the mission to rely on the EOC to disseminate the information (not PAO stuff), situation reports, etc. All info flows through the EOC, so we have the latest versions. The great folks in Risk Communication always keep OPS in the loop.

Thanks,

-----Original Message-----
From: MAJ USACHPPM
Sent: Thursday, January 11, 2007 1:06 PM
To: Mr USACHPPM; Ms USACHPPM
Cc: Mr USACHPPM; Ms USACHPPM; USACHPPM-EOC; WRAIR-Wash DC; Ms USACHPPM; MAJ USACHPPM-Wash DC; KACC-Ft Meade; LTC USACHPPM; Mr USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

is the latest version.

-----Original Message-----
From: MAJ USACHPPM
Sent: Thursday, January 11, 2007 12:53 PM
To: Mr USACHPPM
Cc: Mr USACHPPM; COL USACHPPM; USACHPPM-EOC;
This is the last I saw of this coming out of DEDS. COL agreed with the changes.

-----Original Message-----
From: Mr USACHPPM
Sent: Thursday, January 11, 2007 12:02 PM
To: COL USACHPPM; LTC WRAIR-Wash DC; LTC KACC-Ft Meade; LTC USACHPPM; Mr USACHPPM
Cc: LTC WRAIR-Wash DC; LTC KACC-Ft Meade; LTC USACHPPM; Mr USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

May I have a copy of the approved botulism fact sheet?

Thanks,

U.S. Army Center for Health Promotion
& Preventive Medicine
(410) army.mil

USACHPPM: Saving Lives & Resources--Prevention is the Key.

-----Original Message-----
From: Mr USACHPPM
Sent: Wednesday, January 10, 2007 3:28 PM
To: COL USACHPPM; LTC WRAIR-Wash DC; LTC KACC-Ft Meade; LTC USACHPPM; Mr USACHPPM
Cc: Lyn C Ms USACHPPM; LTC WRAIR-Wash DC; LTC KACC-Ft Meade; LTC USACHPPM; Mr USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

They're requesting our assistance to address the issue and have requested an EPICON.

Just got off the phone with (CDR Kimbrough ACC) and her staff regarding the two cases of infant botulism from the Ft Meade community.

They're requesting our assistance to address the issue and have requested an EPICON.

A big concern is the risk of infection from exposure to contaminated soil. There's construction near the housing area where the two cases reside that's created a large debris pile of soil, concrete, etc. Local residents and the Ft Meade Garrison Command are very concerned that this may be the cause of the two infections.

There's been interest from outside medical organizations to help respond to this.

The POC at KACC is the Chief of PM, LTC (email above). Please ensure all communication is routed thru her so that we have a single message.

They're sending up a draft press release (attached) and botulism fact sheet that need to be reviewed NLT 1700 today. They're also looking for assistance drafting an
article for the Ft Meade newspaper to help inform the community. This will require RISKCOM support. Coordinate w/DEDS (Bill White's in the office today.)

Please copy the USACHPPM-EOC w/all emails.

DEDS should prepare a daily consolidated exsum for the CG until this matter is over.

-----Original Message-----
From: COL USACHPPM
Sent: Wednesday, January 10, 2007 11:20 AM
To: Ms USACHPPM, MAJ USACHPPM, LTC WRAIR-Wash DC, MAJ USACHPPM-Wash DC, Ms USACHPPM, Mr USACHPPM, Mr USACHPPM, COL USACHPPM
Cc: Mr USACHPPM, Mr USACHPPM, COL
Subject: FW: Infant Botulism (UNCLASSIFIED)

Heads up. No request for direct assist from us at this point. Has hit as a PAO issue.

-----Original Message-----
From: COL OTSG
Sent: Wednesday, January 10, 2007 11:12 AM
To: COL USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

We've sent this forward to leadership as a prelim EXSUM, pending further information out of Ft. Meade.
From: Mr WRAMC-Wash DC
Sent: Thursday, January 11, 2007 3:36 PM
To: WRAMC-Wash DC; MAJ WRAMC-Wash DC; CPT WRAMC-Wash DC; 1LT WRAMC-Wash DC; CPT WRAMC-Wash DC; LTC KACC-Ft Meade
Cc: COL OTSG; Mr OTSG
Subject: INFANT BOTULISM CASE DISCHARGED HOME

ALCON

RN, CCM, CSPI, MPH
Walter Reed Army Medical Center
Office: DSN 662
Cell:
All,

First questionnaire is from Dr. Blythe second is the same with items added from CDC standard botulism questionnaire. Completed questionnaire from first case should have been faxed to LTC (from Dr. Blythe). Let me know if there are problems. Hope you can join the CDC Telecon at 1600.

VR,

---Original Message---

From: David Blythe [mailto:DBLYTHE@dhmh.state.md.us]
Sent: Thursday, January 11, 2007 1:50 PM
To: MAJ USACHPPM
Subject: Draft Questionnaire

- Attached is the draft questionnaire - modified from one used by the NYC DOH several years ago, as we discussed this morning. I'm happy to discuss this more if you like, and feel free to change this further as you see fit. Not entirely sure about the live market questions - those probably don't apply here in the way they might in NYC. - David

David Blythe, MD, MPH
Epidemiology and Disease Control Program Maryland Department of Health & Mental Hygiene
phone: 410-767-6685
fax: 410-669-4215
e-mail: dblythe@dhmh.state.md.us
Initials of interviewer __________

Date form completed: ___/___/___

DEMOGRAPHIC INFORMATION OF THE CASE

Parent’s last name: ____________________________  Parent’s first name: ____________________________

Infant’s last name: ____________________________  Infant’s first name: ____________________________

Home address:

1. Where was your child born?  □ Hospital  □ Other _________________
   Hospital Name: ____________________________
   Age at discharge from hospitals? ________
   Was your child premature?  □ Yes □ No □ DK

2. Where do you usually take your child for medical problems or for well baby visits?
   □ Pediatrician  □ Family/gen practitioner  □ Nurse practitioner or PA
   □ ER  □ Other (Please specify ____________________________)

3. Before your child’s illness from botulism began, did he/she see a physician for any other medical
   problems (not including well-child visits or visits for immunizations)?  □ Yes □ No □ DK

4. Did your child receive antibiotics in the month prior to illness onset?  □ Yes □ No □ DK

5. What was your infant’s usual bowel movement pattern during the following months of life?
   ≥ 1 BM/day  1 > BM ≤ 3/day  < 1/3 days  unknown
   1st month □ □ □ □
   2nd month □ □ □ □
   3rd month □ □ □ □
   4th month □ □ □ □

When we first interviewed you about your child’s illness, you reported that he/she first appeared sick on
____/____/____ (onset date). Is this the correct date?  □ Yes □ No □ DK

Revised: June 24, 2002
I. Food/Liquid Exposures

6. Prior to your child’s illness on __/__/____ (onset date), was your child being breast-fed?
   □ Yes □ No □ DK
   If yes, how many times per day do you breast feed? _____

7. Prior to your child’s illness on __/__/____ (onset date), was your child being bottle fed?
   □ Yes □ No □ DK
   Do you use expressed breast milk to bottle feed? □ Yes □ No □ DK
   Do you use formula to bottle feed? □ Yes □ No □ DK
   Which formula did you primarily use? ________________________
   Please specify other brands of formula that you used. (List all brands used)
   ___________________________________________________________
   ___________________________________________________________
   ___________________________________________________________

What type of formula do you usually use? Did you use...
   a. Liquid (ready to serve) □ Yes □ No □ DK
   b. Liquid (conc. add water) □ Yes □ No □ DK
   c. Powdered □ Yes □ No □ DK
   Who usually prepared the formula?
   Name: ________________________________
   Relationship to the child: ________________________________
   If water was used, what was the source of the water? ________________________________
   If tap water, was it boiled or filtered? □ Yes □ No □ DK
   How many bottle feedings per day? _______

8. Prior to your child’s illness, did he/she eat any baby cereal? □ Yes □ No □ DK
   Please specify type and brand (rice, oatmeal, etc.). ________________________________

9. Did your child eat jars, bottles, or cans of baby food? □ Yes □ No □ DK
   Please specify type and brand __________________________________________________

10. Did your child eat any baby food that was prepared at home? □ Yes □ No □ DK
   Please specify how it was prepared________________________________________________

11. Did your child eat any home-canned foods? □ Yes □ No □ DK

12. Did anyone in your family eat any home-canned foods? □ Yes □ No □ DK
13. Did your child drink any regular cow’s milk (pasteurized)? □ Yes □ No □ DK
14. Did your child drink any unpasteurized milk? □ Yes □ No □ DK
15. Did your child eat or drink any honey? □ Yes □ No □ DK
16. Did your child eat any corn syrup? □ Yes □ No □ DK
17. Did your child drink any sugar/water? □ Yes □ No □ DK
18. Did your child drink any fruit juices? □ Yes □ No □ DK
19. Did your child drink any unpasteurized fruit juices? □ Yes □ No □ DK
20. Did your child eat any meats? □ Yes □ No □ DK
21. Did your child eat any fish? □ Yes □ No □ DK
22. Did your child drink tea? □ Yes □ No □ DK
   Was it sweetened? □ Yes □ No □ DK
23. Did your child receive any supplemental vitamins in the month before the illness began? □ Yes □ No □ DK
   If yes, please specify ____________________________
   Did they contain iron? □ Yes □ No □ DK
24. Did your child eat any fresh produce (fruits or vegetables) that were organically grown? □ Yes □ No □ DK
   If yes, please specify which fruits and vegetables were organically grown ____________________________
25. Does anyone in your family eat any fresh produce (fruits or vegetables) that is organically grown? □ Yes □ No □ DK
   If yes, please specify which fruits and vegetables were organically grown ____________________________
26. Do you shop at any Farmer’s Markets? □ Yes □ No □ DK

Revised: June 24, 2002
27. Where do you shop for groceries?

28. Where do you shop for baby food and other baby items?

II. Environmental exposures

29. Was there any of the following during the month before your child’s onset near your home:
   - construction (e.g. new home or other building)
   - excessive dust (e.g. sewers, new foundations)
   - excavation
   - new road construction
   - plowing of fields
   - environmental change (e.g. remodeling of your home, landscaping)

   If yes, describe

30. Was there any of the following during the month before your child’s onset at other sites where your child has been:
   - construction (e.g. new home or other building)
   - excessive dust (e.g. sewers, new foundations)
   - excavation
   - new road construction
   - plowing of fields
   - environmental change (e.g. remodeling of your home, landscaping)

   If yes, describe

31. Did your child or anyone else in your family play in a sandbox prior to illness?
   - Yes
   - No
   - DK

   If so, where? (list)

32. How often is the furniture in your house dusted?
   - more than once per week
   - once a week
   - less than once per week but at least every two weeks
   - less than every two weeks
   - other (please specify)

   - unknown/refused

Revised: June 24, 2002
33. Do you have any carpets or area rugs covering the floor in your house? □ Yes □ No □ DK
   If yes, are they
   □ wall to wall carpets
   □ area rugs
   □ both wall to wall and area rugs
   What is the pile of wall to wall carpeting, (low, med, or shag)?

34. How often are your floors and carpets vacuumed?
   □ more than once per week
   □ once a week
   □ less than once per week but at least every two weeks
   □ less than every two weeks
   □ other (please specify)
   □ unknown/refused

35. What type of heating system do you have in your home?
   □ forced air (e.g. gas, oil, electric)
   □ steam heat (radiators)
   □ circulating hot water (e.g. solar, oil, gas)
   □ electric
   □ other (please specify)

36. Does your home have air conditioning? □ Yes □ No □ DK
   If yes, please specify if individual room unit or central air conditioning

37. Do you have any electric air cleaner in your home? □ Yes □ No □ DK
   If yes, please specify if central or portable

38. Were you or anyone in your household or family involved in gardening or yard work prior to your child's illness onset?
   □ Yes □ No □ DK
   If yes, please specify flower or vegetable.
   How often do you or household/family member garden?
   Which months of the year do you garden?
39. Do you have any plants inside your house?
   \(\square\) Yes \(\square\) No \(\square\) DK
   If yes, are they (check all that apply)
   \(\square\) located on or within 1 foot of the floor
   \(\square\) located on tables
   \(\square\) hanging from the ceiling
   Are there any plants in the baby's room? \(\square\) Yes \(\square\) No \(\square\) DK

40. Do you take your child for walks outside? \(\square\) Yes \(\square\) No \(\square\) DK
   Where do you usually go for walks?
   Do you go to any nearby parks? \(\square\) Yes \(\square\) No \(\square\) DK
   If yes, please specify

41. Does your child play or lie on the ground outside? \(\square\) Yes \(\square\) No \(\square\) DK
   Please specify in backyard, park, etc.
   Burba Park

42. Are you a member of any social or religious organizations? \(\square\) Yes \(\square\) No \(\square\) DK
   If yes, please specify
   Did you take your child to any events? \(\square\) Yes \(\square\) No \(\square\) DK
   Patriot Ridge Community Center
   Was your child at an associated daycare during any of these events?
   If yes, where/when?
   CDC 1
   CDC 2
   CDC 3
   FCC

43. Is your child in school/daycare or does he/she participate in any other group activities?
   \(\square\) Yes \(\square\) No \(\square\) DK
   If yes, please provide names and locations
   Describe “other group activities”

44. Did your child travel outside of Ft. Meade at all prior to his/her illness? \(\square\) Yes \(\square\) No \(\square\) DK
   If yes, please specify where

45. Did your child travel outside of Maryland prior to his/her illness? \(\square\) Yes \(\square\) No \(\square\) DK
If yes, please specify location, length of stay, and nature of visit.

46. Did you visit a live poultry or meat market?  □ Yes  □ No  □ DK
   If yes, did you purchase any poultry or meat?
   Specify type of meat purchased: ____________________________________________
   Name of market: _________________________________________________________
   Address of market: _______________________________________________________
   Did you take your child to the live market?  □ Yes  □ No  □ DK

47. Did you take your child to any large gatherings prior to illness (wedding reception, parties, festivals, fairs, religious gatherings, etc.)  □ Yes  □ No  □ DK
   If yes, please specify_____________________________________________________

48. Did your child swim/wade/splash in an ocean, lake, river, pool, or recreational water park in the before his/her illness onset?  □ Yes  □ No  □ DK
   If yes, please specify_____________________________________________________

49. Did your child come into contact with any animals in the prior to illness?  □ Yes  □ No  □ DK
   If yes, what kind of animals? _____________________________________________
   When? ________________________ Where? _________________________________
   Do you own pets? _______________________________________________________
   Buried a pet ____________________________

50. Where did you buy/obtain your baby’s crib? __________________________________
   Was the crib used or new?  □ Yes  □ No  □ DK
   Was the mattress used or new?  □ Yes  □ No  □ DK

51. Does your child share toys with anyone?  □ Yes  □ No  □ DK
   If yes, please specify____________________________________________________

52. How often do you sterilize bottles before using them? □ Always □ Sometimes □ Never

53. How often do you sterilize nipples before using them? □ Always □ Sometimes □ Never

54. Does your child use a pacifier?  □ Yes  □ No  □ DK
   Where were pacifiers purchased?
   How often do you clean the pacifier?
   If the pacifier falls on the floor:
How often do you clean with water? □ Always □ Sometimes □ Never
How often do you clean with soap? □ Always □ Sometimes □ Never
How often do you sterilize? □ Always □ Sometimes □ Never

55. Who is your child’s pediatrician?
Pediatrician’s name: ____________________________
Clinic name: ____________________________
Address: ____________________________
Phone number:( ) _______-

56. Do you know anyone other infants who have had a similar illness as your child’s?
□ Yes □ No □ DK
If yes, please specify ____________________________
______________________________
______________________________
______________________________

Additional comments ____________________________
______________________________
______________________________
______________________________

Thank you very much for your time.
Great. AA County HD also suggested asking questions about siblings: are there any?; if so, what are their ages?

Dr. Blythe,

Thanks. We'll send on.

PhD, Epidemiologist
Population Health Outcomes DEDS, USACHPPM APG, MD 21010-5403
Commercial
DSN
Blackberry e-mail: @us.army.mil
SIPRNET email: @us.army.smil.mil

Attached is the draft questionnaire - modified from one used by the NYC DOH several years ago, as we discussed this morning. I'm happy to discuss this more if you like, and feel free to change this further as you see fit. Not entirely sure about the live market questions - those probably don't apply here in the way they might in NYC. - David

David Blythe, MD, MPH
Epidemiology and Disease Control Program Maryland Department of Health & Mental Hygiene
phone: 410-767-6685
fax: 410-669-4215
email: dblythe@dhmh.state.md.us
Please take a look at these Q and As associated with the infant botulism. Providing for your review and information.

COL Cummings

"Army Strong--One Team"

-----Original Message-----
From: Ms USACHPPM
Sent: Friday, January 12, 2007 1:32 PM
To: Mr USACHPPM; COL KACC-Ft Meade;
Cc: Mr USACHPPM; COL USACHPPM;
Subject: CHPPM RTQ on infant botulism (not for release)

The attached is approved by COL and MAJ, who developed most of the answers. It's intended for CHPPM public affairs and CHPPM EPICON participants' use in response to media inquiry.

It is a working document--please let me know if you have comments.

CHPPM has not received any inquiries yet. Interview requests will be routed through/cleared with the Fort Meade public affairs office. I do not have an email for , but am copying her colleague, so that they are informed of planned responses.

I am assuming that I can respond to inquiry on the CHPPM participation in the epidemiological investigation with these approved responses. (I would let Fort Meade PAO know if I have done so, copying COL ). If that's not correct, please let me know.

 feels that, were he to find himself in the role of public spokesperson, he would want to engage the participation of the physician currently on-scene from the MD public health department. This is a Dr. Kelly Russo. His is a good idea, in that it shows state and Army collaboration and cooperation. Third-party endorsement (implied or actual) is helpful in this case.
USACHPPM: Saving Lives & Resources--Prevention is the Key.
CHPPM Response to Query
Infant Botulism Epidemiological Consultation (EPICON)

CHPPM public affairs posture: Passive, RTQ only. CHPPM is a support to the Fort Meade public affairs effort and responds only to questions about CHPPM EPICON mission and general questions about EPICONS. Fort Meade infant botulism fact sheet may be used in responses as well.

The contents of this document are for use by CHPPM EPICON spokespersons and CHPPM public affairs in responding to media inquiry. This document is not releasable.

1. What is an epidemiological consultation team?

Epidemiology is the science devoted to investigating how population factors and the environment influence the occurrence of diseases or injuries. The epidemiology consultation team or EPICON team applies this science to find causes, risk factors, opportunities for prevention and treatment, and ways to stop epidemics.

2. What is the team looking for (i.e., what questions is the team trying to answer)?

The team will attempt to determine whether the two infant botulism cases reported in the Fort Meade area are related and attempt to identify any possible, common links or sources.

If one or more sources are identified, control measures may be recommended to guard against further transmission. Communication will be important throughout the process, and the team will share information regarding the illness and control measures with the affected community.

3. What methodologies will the team use to find the answers it seeks?

Reviewing results of tests that were ordered on the affected children during their illness, as well more specific testing that is in progress using samples from these patients. These more specific, bacteria subtype tests are being processed at public health laboratories.

The team will review additional clinical information from healthcare providers and conduct interviews with the infants' parents to determine food history and possible environmental exposures. Team members will also try to determine if the Fort Meade community or the civilian sector is experiencing other cases, by looking at surveillance data and disease reports.

4. How many people are on the team? What are their specialties?

The team will consist of six to eight public health personnel specializing in the fields of preventive medicine, infectious disease epidemiology, environmental science, veterinary medicine and public communication. Army personnel will consult or partner with similar professionals at the Centers for Disease Control and Prevention (CDC) and local public agencies.
5. Why is there concern about the two cases of infant botulism at Kimbrough?

Infant botulism is a relatively rare event. Every year in the United States about 100 cases of infant botulism are reported, and most are isolated cases. The proximity of the two Fort Meade cases warrants further investigation.

6. Why did Kimbrough have to come to the Army Center for Health Promotion & Preventive Medicine for assistance?

CHPPM specializes in preventive medicine, environmental health and public communication about health matters. CHPPM can efficiently assemble an expert team of investigators to interview case contacts, collect and analyze samples, and communicate risks and control measures, when needed, to the public. At the same time the other important, clinical and preventive medicine missions at Kimbrough can continue without disruption.

7. When will the team have answers?

The results of subtyping of the bacteria that were isolated from the affected infants are anticipated within a week—by about Jan. 20.

Interviews of household contacts began on Jan. 12. Information gathered from the interviews may determine common exposures between the affected infants. Should further environmental or clinical sampling be warranted, processing of laboratory samples will require an estimated additional two weeks from the date of sample collection.

8. How will the team report the answers?

The team will report findings to the Fort Meade medical authorities. The decision to make information public is theirs. Information will be released through the Fort Meade public affairs office. The public affairs contact is Melanie Moore, (301) 677-1301.

9. Who will release the answers to the press?

The Fort Meade public affairs office is responsible for sharing information with the affected households as well as the public/press. The public affairs contact is Melanie Moore, (301) 677-1301.

10. What is status of the two cases at Kimbrough?

11. How many cases of infant botulism has the DOD experienced in the last year?

Eight cases have been identified from 2006 through inpatient records: three from California, two from Maryland*, one from Texas, one from Utah, and one from Washington.

* These are the two cases the EPICON is currently participating in investigating.

12. What is botulism?
Botulism is a rare, serious but treatable paralytic illness caused by a nerve toxin that is produced by the bacterium Clostridium botulinum.

From the approved fact sheet: With infant botulism, the Clostridium botulinum bacteria grow within a baby’s digestive system. Contact is made by eating or swallowing bacterial spores found naturally in soil and in some contaminated food products. Most cases (94 percent) occur in babies 6 months old and younger. Infant botulism affects girls and boys equally. There are approximately 100 cases of infant botulism reported annually in the United States.

Only if asked: CHPPM backup info: There are three main kinds of botulism. Foodborne botulism is caused by eating foods that contain the botulism toxin. Wound botulism is caused by toxin produced from a wound infected with Clostridium botulinum. Infant (also known as intestinal) botulism is caused by consuming the spores of the botulinum bacteria, which then grow in the intestines and release toxin. All forms of botulism can be fatal and are considered medical emergencies. Foodborne botulism can be especially dangerous because many people can be poisoned by eating a contaminated food.

13. What causes botulism?
Clostridium botulinum is the name of a group of bacteria commonly found in soil. They grow best in low oxygen conditions. The bacteria form spores which allow them to survive in a dormant state until exposed to conditions that can support their growth. There are seven types of botulism toxins designated by the letters A through G; only types A, B, E and F cause illness in humans.

14. How common is botulism?
In the United States an average of 110 cases of botulism are reported each year. Of these, approximately 25 percent are foodborne, 72 percent are infant botulism, and the rest are wound botulism. Outbreaks of foodborne botulism involving two or more persons occur most years and are usually caused by eating contaminated home-canned foods. The number of cases of foodborne and infant botulism has changed little in recent years, but wound botulism has increased because of the use of black-tar heroin, especially in California.

15. What are the symptoms of infant botulism?
From the fact sheet: Any or all of the following are symptoms of infant botulism:
- Constipation
- Poor feeding and a weak suck
- Weak cry
- Loss of head control
- Difficulty swallowing
- Excessive drooling
- Floppy appearance or “floppy baby”
- Generalized weakness
- Breathing difficulties

CHPPM backup info: Infants with botulism appear lethargic, feed poorly, are constipated, and have a weak cry and poor muscle tone.

The classic symptoms of botulism include double vision, blurred vision, drooping eyelids, slurred speech, difficulty swallowing, dry mouth and muscle weakness. These are all symptoms of the muscle paralysis caused by the bacterial toxin. If
untreated, these symptoms may progress to cause paralysis of the arms, legs, trunk and respiratory muscles. In foodborne botulism, symptoms generally begin 18 to 36 hours after eating a contaminated food, but they can occur as early as 6 hours or as late as 10 days.

16. What should one do if symptoms appear?

Seek medical attention immediately.

17. Is it contagious?

Infection is caused by ingestion of contaminated foods or soil or possibly dust. No instance of person-to-person transmission has been proven.

18. Can you die from it?

Less than 1 percent of babies hospitalized with infant botulism die. Infant botulism ranges from mild illness with gradual onset to sudden infant death. Some studies suggest that it may cause an estimated 5 percent of cases of sudden infant death syndrome (SIDS).

CHPPM backup on botulism (all varieties) death: Botulism can result in death due to respiratory failure. However, in the past 50 years, the proportion of patients with botulism who die has fallen from about 50 percent to 8 percent. A patient with severe botulism may require a breathing machine as well as intensive medical and nursing care for several months. Patients who survive an episode of botulism poisoning may have fatigue and shortness of breath for years, and long-term therapy may be needed to aid recovery. Infant botulism ranges from mild illness with gradual onset to sudden infant death. Some studies suggest that it may cause an estimated 5 percent of cases of sudden infant death syndrome (SIDS). Less than 1 percent of hospitalized cases die.

19. How is botulism diagnosed?

From the fact sheet: A visit to a healthcare provider, who will collect a stool specimen.

CHPPM backup info: Growing Clostridium botulinum bacteria from stool cultures is sufficient for making the diagnosis of intestinal botulism in infants.

20. How can infant botulism be treated?

From the fact sheet: Prompt diagnosis and treatment are key. Treatment is available through FDA-approved medicine. Expect a complete recovery, although the recovery is gradual—usually weeks to two months with treatment, and several months without treatment.

CHPPM backup info, general: Good supportive care in a hospital is the mainstay of therapy for all forms of botulism. Currently, antitoxin is not routinely given for treatment of infant botulism.

The respiratory failure and paralysis that occur with severe botulism may require a patient to be on a breathing machine (ventilator) for weeks, plus intensive medical and nursing care. After several weeks, the paralysis slowly improves. If diagnosed early, foodborne and wound botulism can be treated with an antitoxin which blocks the action of toxin circulating in the blood. This can prevent patients from worsening,
but recovery still takes weeks. Physicians may try to remove contaminated food still in the gut by inducing vomiting or by using enemas. Wounds should be treated, usually surgically, to remove the source of the toxin-producing bacteria.

21. How can it be prevented?
From the fact sheet:
- Wash hands frequently
- Avoid giving honey to infants less than 1 year of age
- Routine and frequent cleaning of toys, particularly items that babies place in their mouths and those toys that have fallen to the ground or floor
- Through proper preparation of foods (boiling and cooking)
- Avoid cans of food/formula with dents or that are bulging or rusting
- Avoid locations with excessive dust

CHPPM backup info: Botulism can be prevented. Because honey and corn syrup can contain spores of Clostridium botulinum (and this has been a source of infection for infants), children less than 12 months old should not be fed honey or corn syrup. These are, however, safe in older children.

Foodborne botulism has often been from home-canned foods with low acid content, such as asparagus, green beans, beets and corn. However, outbreaks have occurred that were traceable to sources such as chopped garlic in oil, chili peppers, tomatoes, improperly handled baked potatoes wrapped in aluminum foil, and home-canned or fermented fish. Persons who do home canning should follow strict hygienic procedures to reduce contamination of foods. Oils infused with garlic or herbs should be refrigerated. Potatoes which have been baked while wrapped in aluminum foil should be kept hot until served or refrigerated. Because the botulism toxin is destroyed by high temperatures, persons who eat home-canned foods should consider boiling the food for 10 minutes before eating it to ensure safety. Instructions on safe home canning can be obtained from county extension services or from the U.S. Department of Agriculture.

Wound botulism can be prevented by promptly seeking medical care for infected wounds and by not using injectable street drugs.

POC for this document: [Contact Information]
Attached is an update of the investigation into the infant botulism here at Ft Meade.

"Army Strong--One Team"

COL, MS
Commanding
Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) DSN 622-
12 January 2007

(U) Command Critical Information Requirement, Kimbrough Ambulatory Care Center (KACC), FT MEADE, MD (EXSUM).
(U) This is a follow-up to the CCIR sent on 10 and 11 Jan 07. KACC has assembled a team and began an epidemiological investigation of the two cases of infant botulism on Ft Meade. The team consists of personnel from Ft Meade MEDDAC, CHPPM, WRAMC and the Anne Arundel County Health Department. Team members have completed on-site interviews of the two families. This data will be used to determine any commonality in their living conditions and daily activities to help narrow the focus of the epidemiological investigation. The team is also investigating prior use of land area near the residential community. One of the families (family of the infant who was ill in Oct 06) strongly believes the source of the disease is a soil and debris pile adjacent to the family housing area. The family has notified many members of the local media. Our medical talking points for the media consist of 1) our primary concern is the health and welfare of this community and the two infants; 2) the investigation is ongoing with no preliminary information available at this time; 3) the investigation involves collaboration between Army, local and state public health personnel. We have had no direct contact with the media today.

APPROVED BY: COL [REDACTED], Commander, Fort Meade MEDDAC, and KACC

This communication and its attachments are confidential to the Military Health System, and to the intended recipient(s). Information contained in this communication may be subject to the provisions of the Privacy Act of 1974 and Health Insurance Portability and Accountability Act. If you have received this email in error, please advise the sender immediately and delete the entire message together with all attachments. All unintended recipients are hereby notified that any use, distribution, copying or any other action regarding this email is prohibited.
Looks good to me!

"Army Strong--One Team"

COL, MS
Commanding
Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) DSN 622-

-----Original Message-----
From: LTC KACC-Ft Meade
Sent: Friday, January 12, 2007 6:50 PM
To: COL KACC-Ft Meade
Subject: Invite for Oliver Court Residence
Importance: High

FYI
Barrett.doc (68 KB)

Barrett.doc has written up the notes on the first interview (attached). Please review it, add the other interview and forward it on to the group (CC above) for their review. Request all reply to you for changes and you be the final record for changes.

Thanks,
MAJ, PhD, Epidemiologist

Commercial
DSN Blackberry

e-mail @us.army.mil

SIPRNET email: @us.army.smil.mil

-----Original Message-----
From: @comcast.net [mailto: @comcast.net]
Sent: Friday, January 12, 2007 7:26 PM
To: MAJ USACHPPM
Cc: COL USACHPPM
Subject: Case 2 Notes
KACC-Ft Meade

From: USACHPPM
Sent: Monday, January 15, 2007 10:30 PM
To: USACHPPM;
Cc: LTC KACC-Ft Meade
Subject: Re: soil and bot

If Lieutenant and others have not been able to get any further than you over the weekend then it was my intent that this should be a principal focus of tomorrow's work.

Sent from my BlackBerry Wireless Handheld

-----Original Message-----
From: Kelly Russo <hdruss11@aacounty.org>
To: Kelly Russo <HDRUSS11@aacounty.org>; JAMBROSE@lmi.org; MAJ USACHPPM-Maj USACHPPM-Wash DC;
Cc: LTC KACC-Ft Meade;
Sent: Mon Jan 15 16:20:34 2007
Subject: soil and bot

I can't find any info locally about environmental Clostridium botulinum-has it been documented in MD soil? If so, where? Any hotspots? Surely between MDE, DNR, MDA or UM Cooperative Extension someone must have some idea of soil C. botulinum since they all are involved in testing soil, water, etc.

Has anyone looked into this yet?

Kelly Sipe Russo, MD, MPH
Physician Clinical Specialist
Division of Community Health
Anne Arundel County Department of Health
1 Harry S. Truman Parkway
MS 3102, Suite 213
Annapolis, MD 21401-7031
Phone (410) 222-4114
Fax (410) 222-4094
Email: hdruss11@aacounty.org

Kelly Sipe Russo, MD, MPH
Physician Clinical Specialist
Division of Community Health
Anne Arundel County Department of Health
1 Harry S. Truman Parkway
MS 3102, Suite 213
Annapolis, MD 21401-7031
Phone (410) 222-4114
Fax (410) 222-4094
Email: hdruss11@aacounty.org
I would like to start the day with a conference call at 0900, but may attempt to get some of you on the line between 0800 and 0900. Please reply to let me know you are available and what phone number will be your location at 0900. Top efforts tomorrow and continuing this week:

A. Environment background
   1. Cb prevalence central MD if known
   2. ACE or housing contractor records
      - sewage treatment
      - flood plains, runoff
      - construction projects
      - service call logs, neighborhood of interest
      - recurrent problems
   3. Sched 2nd call w/ Dr. Arnon for new questions, and consult CHPPM DEHE, discussing how--if general envi sampling is considered--locations best decided
   4. Consider meteorological records around back-calc'd exposure date intervals

B. Neighborhood visits
   1. Admin questionnaire to the 2 families w/ unaffected infants.
   2. Home visit to case-family #2 with general observations
   3. Area walk-around for general land observations
   4. Risk comm visits to generate best prep for town hall and info products
   5. Vacuum cleaner aspirate collections

C. Continuing epi background
   1. Case-finding (subclinicals or mis-Dx codes, SIDS or in-hosp fatalities, etc.)
   2. Broader Maryland epi summaries / trends

Sent from my BlackBerry Wireless Handheld
OLIVER COURT COMMUNITY MEETING

Good morning

I hope you had a relaxing weekend and that you did NOT do any work on this issue. Just wondering about 2 things:

Could you please give me a final copy of this flyer for my files?
Could I get the phone number for the [redacted] family so I could follow up to possibly schedule a risk communication interview with them?

I did contact the [redacted] family this past Saturday re: a risk communication interview, but [redacted] said they were busy all weekend. I will try to call her again today.

Thank you ma'am, for your help.

-----Original Message-----
From: Ms KACC-Ft Meade
Sent: Friday, January 12, 2007 3:10 PM
To: LTC KACC-Ft Meade
Cc: Ms USACHPPM
Subject: OLIVER COURT COMMUNITY MEETING

DRAFT COPY to be delivered to COL...
OLIVER COURT COMMUNITY MEETING
Tuesday January 16th 2007
7pm

Dear Oliver Court Resident:

Because concerns remain about the infant botulism cases diagnosed within the last few months, a small-group meeting with residents who live in Oliver Court will be held on Tuesday January 16th 2007 at 1900 in Potomac Place. A follow-up town hall meeting for others outside this area will be held the following Tuesday January 23rd at the same time and location.

The purpose of the January 16th meeting will be to provide an intimate discussion forum for the families most closely affected by these events. A physician from the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) who is also a member of the epidemiological consult (EPICON) team assisting in the investigation will be present at this meeting.

I hope you will take advantage of this opportunity. I am also hopeful that others in the community will respect the meeting time reserved for Oliver Court Residents this coming Tuesday, and will take advantage of the town hall meeting on January 23rd.

For more information, please contact LTC [Redacted] Preventive Medicine at Kimbrough Ambulatory Care Center at (301) 677-8661.

[Redacted] Kimbrough ACC?
[Redacted] Fort Meade Garrison Commander ??
Good day to you all:

As you requested, attached is a DRAFT agenda for tonight's meeting with the Oliver Court residents only. Our intention is for the meeting to be very informal, so we don't plan to use briefing slides, etc. Our hope is for the residents to lead most of the discussion. Please let me know if I can provide anything else to you.
OLIVER COURT RESIDENTS MEETING
16 January 2007
7 pm
Potomac Place

Agenda

Introductions 7pm to 7:05pm
COL, Fort Meade Garrison Commander

Anne Arundel County Perspective 7:05pm to 7:10pm
Dr. Kelly Russo, Division of Community Health

EPICON Team Mission 7:10pm to 7:15pm
MAJ, US Army Center for Health Promotion and Preventive Medicine

Open Discussion 7:15 pm
All
Good day ma'am. I have spoken with ___ today and will add her to future emails. Could you please provide me with a phone number for the ___ Thanks much.

-----Original Message-----
From: Ms USACHPPM
To: LTC KACC-Ft Meade
Sent: Tuesday, January 16, 2007 12:00 PM
To: hdjones@aacounty.org
Cc: COL USACHPPM; Mr USACHPPM; MAJ USACHPPM; Ms USACHPPM; hdrussell@aacounty.org; MAJ USACHPPM-Wash DC; LTC KACC-Ft Meade
Subject: Tonight's meeting agenda

Thanks much

-----Original Message-----
From: Ms USACHPPM
Sent: Tuesday, January 16, 2007 12:00 PM
To: hdjones@aacounty.org
Cc: COL USACHPPM; Mr USACHPPM; MAJ USACHPPM; Ms USACHPPM; hdrussell@aacounty.org; MAJ USACHPPM-Wash DC; LTC KACC-Ft Meade
Subject: Tonight's meeting agenda

As you requested, attached is a DRAFT agenda for tonight’s meeting with the Oliver Court residents only. Our intention is for the meeting to be very informal, so we don’t plan to use briefing slides, etc. Our hope is for the residents to lead most of the discussion. Please let me know if I can provide anything else to you.
From: [Redacted]  
Sent: Tuesday, January 16, 2007 2:59 PM  
To: [Redacted]  
Subject: RE: RFI: Birth cohort at Fort Meade

DMSS does not have this field. The MTF (Kimbrough) should have this field.

Ms. [Redacted]'s working on the team that is investigating Botulism cases on Ft. Meade. We need to compare some things between infants that were cases and those that are not cases. We need this information for public health purposes. Can you assist her in this?

Thanks

----Original Message-----
From: [Redacted]  
Sent: Tuesday, January 16, 2007 1:10 PM  
To: [Redacted]  
Subject: RFI: Birth cohort at fort meade

I was asked to pull info to identify a 2006 birth cohort at Ft. Meade.

I was able to pull identifying information for newborns in the Ft. Meade zip (20755), which was the same zip for the 2 cases. However, beneficiary residence or address is not available in M2 (DEERS) so this won't be helpful should we need to target a particular subset to survey.

If I were to furnish you with the SSNs for this group would AMSA be able to pull this info?
Thank you. Are media expected to be at the meeting this evening? Is the Fort Meade public affairs office sending a public affairs rep in case?

FYI for all......

This is the latest version.

This is the last I saw of this coming out of DEDS. COL Petruccelli agreed with the changes.
May I have a copy of the approved botulism fact sheet?

Thanks,

--
U.S. Army Center for Health Promotion
& Preventive Medicine

USACHPPM: Saving Lives & Resources--Prevention is the Key.

-----Original Message-----
From: Mr USACHPPM
Sent: Wednesday, January 10, 2007 3:28 PM
To: COL USACHPPM; LTC KACC-Ft Meade; LTC WRAIR-Wash DC; MAJ USACHPPM; LTC USACHPPM; MAJ USACHPPM; LTC USACHPPM; LTC USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

Just got off the phone w/ (CDR Kimbrough ACC) and her staff regarding the two cases of infant botulism from the Ft Meade community.

They're requesting our assistance to address the issue and have requested an EPICON.

A big concern is the risk of infection from exposure to contaminated soil. There's construction near the housing area where the two cases reside that's created a large debris pile of soil, concrete, etc. Local residents and the Ft Meade Garrison Command are very concerned that this may be the cause of the two infections.

There's been interest from outside medical organizations to help respond to this.

The POC at KACC is the Chief of PM, LTC (email above, ). Please ensure all communication is routed thru her so that we have a single message.

They're sending up a draft press release (attached) and botulism fact sheet that need to be reviewed NLT 1700 today. They're also looking for assistance drafting an article for the Ft Meade newspaper to help inform the community. This will require RISKCOM support. Coordinate w/DEDS ( in the office today.)

Please copy the USACHPPM-EOC w/all emails.

DEDS should prepare a daily consolidated exsum for the CG until this matter is over.

-----Original Message-----
From: COL USACHPPM
Sent: Wednesday, January 10, 2007 11:20 AM
To: Ms USACHPPM; MAJ USACHPPM; LTC WRAIR-Wash DC; MAJ USACHPPM; Ms USACHPPM

Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

Importance: High
Heads up. No request for direct assist from us at this point. Has hit as a PAO issue.

-----Original Message-----
From: OTSG
Sent: Wednesday, January 10, 2007 11:12 AM
To: USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

We've sent this forward to leadership as a prelim EXSUM, pending further information out of Ft. Meade.

Classification: UNCLASSIFIED
Caveats: NONE
Sirs,

As you were asking some questions about the disease yesterday, I thought I would forward this link to MSMR article almost 9 years ago (and entire issue attached as a .pdf) outlining a case seen then at Walter Reed. The Comment section is a nice brief overview.

VR.

Bruno

-----Original Message-----
From: MAJ USACHPPM-Wash DC
Sent: Monday, January 15, 2007 10:14 PM
To: MAJ USACHPPM-Wash DC; MAJ USACHPPM; COL USACHPPM; MAJ USACHPPM; MAJ USACHPPM; MAJ USACHPPM
Cc: MAJ USACHPPM-Wash DC
Subject: Case report of infant botulism in MSMR in 1998

I. E-mail Inquiry to CDC:

FYI

-----Original Message-----
From: David Blythe [mailto:DBLYTHE@dhmh.state.md.us]
Sent: Wednesday, January 17, 2007 11:56 AM
To: MAJ USACHPPM
Cc: hdrussl1@aacounty.org
Subject: Fwd: Inquiry on MD infant cases

Just so you're aware of what's being said by other agencies - below is a public inquiry CDC received related to the infant botulism situation, and below that, the CDC e-mail response (from Umid Sharapov, the EIS Officer within the Enteric Diseases Epidemiology Branch). Personal identifiers for the individual submitting the inquiry have been removed. Feel free to forward this to whomever you like.

II. CDC Response:

CDC is not routinely involved in the investigation of infant botulism cases. CDC is immediately contacted about foodborne botulism cases, because of concern about the possibility of many cases caused by contaminated food. For infant botulism, doctors directly contact the California Infant Botulism Treatment and Prevention Program http://www.dhs.ca.gov/ps/dcdc/InfantBot/ibtindex.htm to request assistance with diagnosis and to obtain the specific antitoxin used to treat infants. State health departments are also notified. Testing of clinical specimens is done either at the state public health laboratory or at CDC (in Maryland, testing is done at the state).

Because of the proximity in time and space of the two illnesses in Ft. Meade, CDC was contacted on January 3. CDC acts primarily to support state health departments and other authorities who are in charge of investigating clusters of disease within a state or in a military jurisdiction, such as these two cases.
Ma'am,

A cluster in reported cases not concentration in soils. I searched all day and no one; CDC, USDA, US Geological Society, EPA, nor any universities, defined areas of the US as having higher or lower concentrations of C. Botulinum in the soil. I believe the concentration varies depending upon soil conditions (pH), climatic changes, biological events (large animal die-offs), etc.

I will be speaking with the Post Historian tomorrow concerning land use and changes. I already know that cavalry horses were used on Post up until the end of WWI. Since then, Post still maintains horse stables on the other side of HWY 32. All horse activities took place near Tipton Airfield and the current horse stable. There have not been any horse burials or mounted cavalry exercises near the housing areas.

-----Original Message-----
From: LTC KACC-Ft Meade
Sent: Wednesday, January 17, 2007 3:17 PM
To: 1LT KACC-Ft Meade
Subject: RE: soil and bot

You mean clusters of Infant Botulism as in cases or C. Botulinum in the soil??

-----Original Message-----
From: 1LT KACC-Ft Meade
Sent: Wednesday, January 17, 2007 12:13 PM
To: LTC KACC-Ft Meade
Subject: RE: soil and bot

Ma'am,

I just got out of a CBRNE IPR with the Commander. But I have been researching C. Botulinum in the local soils. I have found that there are clusters of Infant Botulism in DC, MD, and DE that are disproportional to the land area these states occupy in comparison to other eastern US states. I can't find any tests that say certain soils have a higher prevalence of C. Botulimum than others.

I'm still looking. However, I did find that produce such as potatoes, carrots, and other vegetables that are non-leafy earth cultivated foods can spread C. Botulinum. I will continue to update you Ma'am on any soil surveys I may find.

-----Original Message-----
From: USACHPPM
Sent: Tuesday, January 16, 2007 4:31 PM
To: LTC KACC-Ft Meade
Subject: FW: soil and bot

If and others have not been able to get any further than you over the
weekend then it was my intent that this should be a principal focus of tomorrow's work.

--------Original Message--------
From: Kelly Russo <hdrussll@aacounty.org>
To: Kelly Russo <HDRUSSll@aacounty.org>; JAMBROSE@lmi.org <JAMBROSE@lmi.org>; Mr LMI
CC: LTC KACC-Ft Meade; USACHPPM-Wash DC
Sent: Mon Jan 15 16:20:34 2007
Subject: soil

I can't find any info locally about environmental Clostridium botulinum—has it been documented in MD soil? If so, where? Any hotspots? Surely between MDĘ, DNR, MDA or UM Cooperative Extension someone must have some idea of soil C. botulinum since they all are involved in testing soil, water, etc.

Has anyone looked in to this yet?

Kelly Sipe Russo, MD, MPH
Physician Clinical Specialist
Division of Community Health
Anne Arundel County Department of Health
1 Harry S. Truman Parkway
MS 3102, Suite 213
Annapolis, MD 21401-7031
Phone (410) 222-4114
Fax (410) 222-4094
Email: hdrussll@aacounty.org

Kelly Sipe Russo, MD, MPH
Physician Clinical Specialist
Division of Community Health
Anne Arundel County Department of Health
1 Harry S. Truman Parkway
MS 3102, Suite 213
Annapolis, MD 21401-7031
Phone (410) 222-4114
Fax (410) 222-4094
Email: hdrussll@aacounty.org
Ma'am,

Here they are. Please send changes to

Thanks,

-----Original Message-----
From: LTC KACC-Ft Meade
Sent: Wednesday, January 17, 2007 11:54 AM
To: MAJ USACHPPM; hdruss11@aacounty.org; COL USACHPPM; MAJ USACHPPM-Wash DC; hdruss11@aacounty.org
Subject: FW: Case 2 Notes
Importance: High

ALCON,
I've completed the 1st case interview. I only received Case 2.....Please review, add other interviews and forward it to group for review.

MAJ please add the interviewees to the cases I can't get it to save for some reason:

Case 1: COL Dr Russo, LTC and Mr Ambrose
Case 2: 

Thanks,

LTC

-----Original Message-----
From: MAJ USACHPPM
Sent: Friday, January 12, 2007 7:46 PM
To: MAJ USACHPPM; hdruss11@aacounty.org; COL USACHPPM; MAJ USACHPPM-Wash DC; hdruss11@aacounty.org
Cc: KACC-Ft Meade
Subject: FW: Case 2 Notes

MAJ has written up the notes on the first interview (attached). Please review it, add the other interview and forward it on to the group (CC above) for their review. Request all reply to you for changes and you be the final record for changes.

Thanks,

PhD, Epidemiologist
Population Health Outcomes DEDS, USACHPPM APG, MD 21010-5403
-----Original Message-----
From: [REDACTED]@comcast.net
Sent: Friday, January 12, 2007 7:26 PM
To: [REDACTED]@us.army.mil
Cc: [REDACTED]@us.army.mil
Subject: Case 2 Notes
In case you did not receive some previous forwardings. Reverse Chrono order, most recent at top. Today's to follow.

Colonel, Medical Corps, US Army
Director, Epidemiology & Disease Surveillance USACHPPM, ATTN: MCHB-TS-D
5158 Blackhawk Road, Aberdeen Proving Ground, MD 21010-5403 Office (410) or
Mobile (410) @us.army.mil
From: USACHPPM
Sent: Wednesday, January 17, 2007 12:20 AM
To: Cates, Michael B BG USACHPPM; Mr USACHPPM: COL KACC-Ft Meade; 'usachppm.eoc@us.army.mil'; COL OTSG
CC: Ms USACHPPM; USACHPPM-Wash DC
Subject: SITREP Bot. Meade

UNCLASS

Past 24 hrs

- Produced updated questions-and-answers for direct use in community and for posting, which also addresses EPICON mission. Input from CHPPM PAO Ms. Kukral included.

- Conducted town hall meeting with residents of cases immediate neighborhood. Attended by Anne Arundel County PM physician, USACHPPM epidemiologists, USACHPPM risk communicators, Preventive Medicine Kimbrough Clinic and Fort Meade Garrison Commander.

- Completed teleconference with Maryland State and Anne Arundel county PM physicians, Dr. Arnon (infant botulism expert from California) and EPICON team to discuss strategy for epidemiologic investigation. Discussed possible strategies for environmental sampling.

- Met with garrison commander COL , Kimbrough commander COL , and the Fort Meade Public Affairs Officer for update.

- Identified birth cohort of births to Fort Meade residents for 2006 to identify possible "control" selection.

Next 24 hrs

- Decision on environmental sampling strategy.

- Coordination of laboratory and sample collection/shipping support

- Continue to await results of bacterial subtyping by Maryland State Laboratory Personnel and Equipment

All accounted for

COL
MAJ(P)
MAJ
Ms.
Mr.
Ms.
Ms. (DEDS epidemiologist)
Mr. (DEDS epidemiologist)
Dr. Russo (County PM / ID Physician)
LTC (NCR Vet Chief)
LTC (Kimbrough PM-APHN)

(Kimbrough ESO)
Sent from my BlackBerry Wireless Handheld
From: USACHPPM
Sent: Friday, January 12, 2007 9:58 PM
To: Cates, Michael B BG USACHPPM; Mr USACHPPM; Mr USACHPPM; COL USACHPPM; LTC USACHPPM; COL HCC-Ft Meade
Cc: COL OTSG; MAJ USACHPPM; MAJ USACHPPM; Ms USACHPPM
Subject: SITREP Bot Meade

UNCLASS

Past 24 hrs

- inbrief with Kimbrough Commander COL Cummings

- structured epidemiologic interviews of both parents of each of the two infants who have suffered botulism; database creation

- brief on-camera interviews with ABC and CBS local affiliate TV stations from Wash DC, and with Ft Meade local TV

- meeting of entire team with garrison commander COL McCriddy, the installation Sergeant Major, and the Public Affairs Officer

- tour of the implicated housing area and brief meeting of one of two other close neighbors of the affected families who also has an infant child

- telephonic coordination to obtain data on sudden infant death cases in Maryland occurring in military families

- initiation of information gathering on history of pertinent installation land use, housing construction, and sewage treatment

- initial planning of possible, limited case control study

Next 24 hrs

- preliminary analysis of questionnaire data

- contact family #1 to arrange session with risk communicator, to determine additional concerns and ensure any new questions are addressed

- planning for EPICON accompanying of COL at Town Hall sessions for installation residents over the next 10 days

- monitor media coverage to gauge need for updates or modification of public messages and educational postings

- continue to await results of bacterial subtyping by Maryland State Laboratory Personnel and Equipment

All accounted
EXECUTIVE SUMMARY

11 JAN 07

(U) FORT MEADE INFANT BOTULISM EPICON. (U) USACHPPM EPICON team will deploy to Fort Meade 12 Jan 07 to investigate 2 reported cases on infant botulism. Some team members met at Fort Meade 11 Jan. and conducted teleconference with CDC botulism specialists, Maryland and local public health officials, and the WRAMC physician who treated both cases. Clinical and environmental components of the investigation were discussed. EPICON team will meet with MTF commander tomorrow morning. Then 2 or 3 members will interview parents of both infants. PREPARE MEMO ________.

MAJ [REDACTED] CHPPM/(410) 436-1056

APPROVED BY: COL [REDACTED]

EXECUTIVE SUMMARY

10 JAN 07

(U) INFANT BOTULISM CASE AT FORT MEADE. (U) (DASG-PPM-NC) This is a self-generated EXSUM. 

UNCLASSIFIED
Past 24 hrs

- Part of team met at ChPPM-Main to discuss approaches to environmental sampling. It must be emphasized at all levels that environmental sampling is NOT intended to serve as a tool to 'solve the outbreak [cluster]', nor directly predict risk of future cases, nor contribute to immediate preventive interventions. Instead this would be an opportunity to advance understanding of spore prevalence in a geographic area previously uncharacterized with respect to C. botulinum. It does, however, still constitute part of the overall public health assessment (in contrast to generalizable, scientific research) in that the information gained will contribute to nationally collected data on risk density. As an additional benefit it may enhance current health communications to, and information for, the residents and workers of Fort Meade and the surrounding area (though the information must be presented in proper context to avoid the opposite effect, namely, generating either fear or a false sense of ability of garrison to mitigate).

- Per Dr. Arnon's botulism expert (SME) list, contacted Dr. Mike Adler, MRICD Botulism research group director. They do not have the laboratory capabilities to support us on Edgewood. However, he is contacting someone at USAMRIID to explore possible collaboration on lab support for environmental sampling (soil and dust) and will get back to me soon.

Next 24 hrs

- Schedule meeting or phone conference among ChPPM subject experts on environmental sampling and laboratory analysis.

Tentative invitee list:
EPICON Team
MAJ (DLS) / USACHPPM

- Schedule vacuum dust collection at homes of the two affected infants.

- Continue to await results of bacterial subtyping by Maryland State Laboratory.

- Continue disease surveillance.

Personnel and Equipment
No change
Ma'am,

I just spoke with the Picerne Housing Office Manager. She said there were no work-orders put in for sewer complaints from the housing unit at 3313-6 Oliver Court. However, the housing unit at Oliver Court, put in 3 work-order complaints:

1. 16 JAN 2006 - Laundry room floor drain was backed up.  
   Remedy: maintenance cleaned the drain line.

2. 29 MAR 2006 - Kitchen sink was backed-up  
   Remedy: maintenance used plumbing snake to unclog the line.

3. 9 NOV 2006 - Feces from sewer line coming up through laundry room floor drain.  
   Remedy: The notes from maintenance just say "fixed."

V/R

Environmental Health and Industrial Hygiene Kimbrough Ambulatory Care Center
email: aemedd.army.mil
From: Ms USACHPPM
Sent: Thursday, January 18, 2007 9:02 AM
To: Ms USACHPPM; Mr USACHPPM; USACHPPM
Cc: USACHPPM
Subject: Oliver Court mtg questions

My apologies for missing Tuesday night's meeting, but I hear things went well. Based on the notes I see in the attached file that my colleagues so kindly captured, I would like to offer to write up the fact sheet that parents requested at that meeting (reflected in question 4 on the attached file). If you would like me to do that, I would be glad to do so.

-----Original Message-----
From: Ms USACHPPM
Sent: Wednesday, January 17, 2007 12:09 PM
To: Mr USACHPPM; Ms USACHPPM
Cc: Ms USACHPPM
Subject: The team effort

Here are the questions presented as we heard them. I am sure he will share with you how his perception of the meeting last night was.

Health Risk Communication Program
Directorate of Health Risk Management
USACHPPM

Voice
Fax
@us.army.mil

"They don't care that you know until they know that you care."
Will Rogers

-----Original Message-----
From: Mr USACHPPM
Sent: Wednesday, January 17, 2007 12:03 PM
To: Ms USACHPPM
Subject: FW:

Looks like you captured almost all of the questions.
I added two in yellow.
"They don't care that you know until they know that you care."
Will Rogers
Questions and significant comments:

2. Why does this affect only infants? What is the difference in botulisms?

3. How does the investigation work?

4. There were two cases of infant botulism on the same street. What would you say to them? (asked by McGreedy)

***During part of the response the parent requested a fact sheet to read as they wait at the clinic for educational purposes. COL Cummings tasked LTC Cole Wainwright to ensure that would happen. She acknowledged that was a good idea to have material for parents to read in the waiting area. She also stated that most of that material was designed for care providers and having material for parents would be a great idea.

5. Could this be transmitted via air-born?

6. Are there other Botulism?

7. How do you determine if the cases are linked?

8. Can it be in the water or passed on from the mother to the child through breast milk?

9. How fast do the symptoms appear?

10. How do the symptoms progress?

11. Should we have a concern for bulging or dented cans in the supermarket?

12. What's the next steps on updates and anything happening?

13. Are pets in danger?

14. Several cats and dogs have dies on (spelling) Moose Forest Street. What do you know about this and could there be a connection to botulism?
NOTE: McGreedy offered to investigate and send them an email on this issue.

Significant comments:

Dr Russo clearly stated that the team members are following the course as the county office follows and all information on botulism and other disease, etc are tracked across the county and state.

PAO - There is a website with updates
    She captured the questions as above and they will be posted on the website
    There will be updates on the local Ft Meade Newscast TV channel.
Good info. Thanks so much.

-----Original Message-----
From: LTC KACC-Ft Meade
Sent: Thursday, January 18, 2007 12:57 PM
To: MAJ USACHPPM; MAJ USACHPPM-Wash DC; hdruss11@aacounty.org
Cc: 1LT KACC-Ft Meade
Subject: FW: Infant Bot. Follow-up (Housing Work Orders)

FYI below from

-----Original Message-----
From: 1LT KACC-Ft Meade
Sent: Thursday, January 18, 2007 8:52 AM
To: LTC KACC-Ft Meade
Subject: Infant Bot. Follow-up (Housing Work Orders)

I just spoke with the Picerne Housing. She said there were no work-orders put in for sewer complaints from the housing unit. However, the housing unit at Oliver Court, put in 3 work-order complaints:

1. 16 JAN 2006 - Laundry room floor drain was backed up. Remedy: maintenance cleaned the drain line.

2. 29 MAR 2006 - Kitchen sink was backed-up
Remedy: maintenance used plumbing snake to unclog the line.

3. 9 NOV 2006 - Feces from sewer line coming up through laundry room floor drain.
Remedy: "The notes from maintenance just say "fixed."

V/R

NS, USA
Environmental Health and Industrial Hygiene Kimbrough Ambulatory Care Center
COM
email: namedd.army.mil
You might consider including in your quote or somewhere in the intro of the commander's message that even a thorough, scientific investigation may not resolve the question of cause. (COL mentioned to COL and me that some previous cases have not enjoyed clear-cut resolution—I don't have specifics on her research.) Fort Meade has brought a lot of expertise, Army and civilian, to bear on the problem; still, it might be advisable to sound a cautionary note so that we don't set up a situation where our expertise comes into question by the community because we didn't pinpoint the cause.

A more minor point: We'd prefer no speculation either before or after the investigation. I would suggest, "It is premature to speculate about a particular source. While we are using the best scientific methods and both Army and Civilian expertise, it is possible that the investigators will not identify the cause of these two babies' illness."

Copying Lori Geckle because I think she's working on some part of this material as well.

-----Original Message-----
From: LTC KACC-Ft Meade
Sent: Thursday, January 18, 2007 12:39 PM
To: Ms USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

Press Release to follow.....

LTC

-----Original Message-----
From: COL KACC-Ft Meade
Sent: Thursday, January 11, 2007 2:22 PM
To: LTC KACC-Ft Meade
Cc: Ms USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

Please forward to the Fact Sheet and Press Release that we prepared last evening.
"Army Strong--One Team"

COL, MS
Commanding
Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) [redacted]
DSN 622-

----Original Message-----
From: [redacted] Ms USACHPPM
Sent: Thursday, January 11, 2007 12:02 PM
To: [redacted] Mr USACHPPM
Cc: [redacted] Mr USACHPPM; [redacted] COL USACHPPM;
USACHPPM-EOC; [redacted] LTC WRAIR-Wash DC; [redacted] Ms
USACHPPM; [redacted] MAJ USACHPPM-Wash DC; [redacted] MAJ
USACHPPM; [redacted] LTC KACC-Ft Meade; [redacted] COL
KACC-Ft Meade; [redacted] LTC USACHPPM; 1[redacted] LTC
USACHPPM;
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

May I have a copy of the approved botulism fact sheet?

Thanks,

U.S. Army Center for Health Promotion
& Preventive Medicine
.(410) [redacted]

USACHPPM: Saving Lives & Resources--Prevention is the Key.

---Original Message-----
From: [redacted] Mr USACHPPM
Sent: Wednesday, January 10, 2007 3:28 PM
To: [redacted] COL USACHPPM; [redacted] Mr USACHPPM
Cc: [redacted] Mr USACHPPM; [redacted] COL USACHPPM;
USACHPPM-EOC; [redacted] Ms USACHPPM; [redacted] LTC WRAIR-Wash
DC; [redacted] Ms USACHPPM; [redacted] MAJ USACHPPM-Wash DC;
[redacted] MAJ USACHPPM; [redacted] LTC KACC-Ft Meade;
[redacted] COL KACC-Ft Meade; [redacted] LTC USACHPPM;
[redacted] LTC USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

Importance: High

Just got off the phone w/ (CDR Kimbrough ACC) and her staff
regarding the two cases of infant botulism from the Ft Meade community.

They're requesting our assistance to address the issue and have requested an
EPICON.

A big concern is the risk of infection from exposure to contaminated soil.
There's construction near the housing area where the two cases reside that's
created a large debris pile of soil, concrete, etc. Local residents and the
Ft Meade Garrison Command are very concerned that this may be the cause of
the two infections.
There's been interest from outside medical organizations to help respond to this:

The POC at KACC is the PM. Please ensure all communication is routed thru her so that we have a single message.

They're sending up a draft press release (attached) and botulism fact sheet that need to be reviewed NLT 1700 today. They're also looking for assistance drafting an article for the Ft Meade newspaper to help inform the community. This will require RISKCOM support. Coordinate w/DEDS in the office today.

Please copy the USACHPPM-EOC w/all emails.

DEDS should prepare a daily consolidated exsum for the CG until this matter is over.

---Original Message---
From: COL USACHPPM
Sent: Wednesday, January 10, 2007 11:20 AM
To: LTC WKRIR-Wash DC; MAJ USACHPPM-Wash DC;
Ms USACHPPM
Cc: Mr USACHPPM; Mr USACHPPM;
Subject: FW: Infant Botulism (UNCLASSIFIED)

Heads up. No request for direct assist from us at this point. Has hit as a PAO issue.

---Original Message---
From: COL OTSG
Sent: Wednesday, January 10, 2007 11:12 AM
To: COL USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

We've sent this forward to leadership as a prelim EXSUM, pending further information out of Ft. Meade.

Classification: UNCLASSIFIED
Caveats: NONE
Haven't we already released these documents to the public?

"Army Strong--One Team"

COL, MS
Commanding
Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) [redacted]
DSN 622-

-----Original Message-----
From: [redacted] KACC-Ft Meade
Sent: Thursday, January 18, 2007 3:54 PM
To: COL KACC-Ft Meade
Subject: [redacted] Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

FYI

-----Original Message-----
From: [redacted] Usachppm
Sent: Thursday, January 18, 2007 3:27 PM
To: LTC KACC-Ft Meade
Cc: Ms Usachppm
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

LTC [redacted]

You might consider including in your quote or somewhere in the intro of the commander's message that even a thorough, scientific investigation may not resolve the question of cause. (COL [redacted] mentioned to COL [redacted] and me that some previous cases have not enjoyed clear-cut resolution--I don't have specifics on her research.) Fort Meade has brought a lot of expertise, Army and civilian, to bear on the problem; still, it might be advisable to sound a cautionary note so that we don't set up a situation where our expertise comes into question by the community because we didn't pinpoint the cause.

A more minor point: We'd prefer no speculation either before or after the investigation. I would suggest, "It is premature to speculate about a particular source. While we are using the best scientific methods and both Army and Civilian expertise, it is possible that the investigators will not identify the cause of these two babies' illness."

Copying [redacted] because I think she's working on some part of this material as well.
USACHPPM: Saving Lives & Resources--Prevention is the Key.

-----Original Message-----
From: [REDACTED] KACC-Ft Meade
Sent: Thursday, January 18, 2007 12:39 PM
To: [REDACTED] USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

Press Release to follow.....

-----Original Message-----
From: [REDACTED] COL KACC-Ft Meade
Sent: Thursday, January 11, 2007 2:22 PM
To: [REDACTED] LTC KACC-Ft Meade
Cc: [REDACTED] Ms USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

Please forward to [REDACTED] the Fact Sheet and Press Release that we prepared last evening.

COL

"Army Strong--One Team"

COL, MS
Commanding
Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) [REDACTED]
DSN 622-

-----Original Message-----
From: [REDACTED] Ms USACHPPM
Sent: Thursday, January 11, 2007 12:02 PM
To: [REDACTED] Mr USACHPPM
Cc: [REDACTED] COL USACHPPM; USACHPPM-EOC; LTC WRAIR-Wash DC; Ms USACHPPM; MAJ USACHPPM-Wash DC; MAJ USACHPPM; LTC KACC-Ft Meade; COL KACC-Ft Meade; LTC USACHPPM; COL USACHPPM; Mr USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

May I have a copy of the approved botulism fact sheet?

Thanks,

U.S. Army Center for Health Promotion
& Preventive Medicine
(410) [REDACTED]
us.army.mil

USACHPPM: Saving Lives & Resources--Prevention is the Key.
Importance: REQUESTED

Just got off the phone with (CDR Kimbrough ACC) and her staff regarding the two cases from the Ft Meade community. They're requesting our assistance to address the issue and have requested an EPICON.

A big concern is the risk of infection from exposure to contaminated soil. There's construction near the housing area where the two cases reside that's created a large debris pile of soil, concrete, etc. Local residents and the Ft Meade Garrison Command are very concerned that this may be the cause of the two infections.

There's been interest from outside medical organizations to help respond to this. The POC at KACC is the Chief of PM, LTC . Please ensure all communication is routed thru her so that we have a single message.

They're sending up a draft press release (attached) and botulism fact sheet that need to be reviewed NLT 1700 today. They're also looking for assistance drafting an article for the Ft Meade newspaper to help inform the community. This will require RISKCOM support. Coordinate w/DEDS ( in the office today.)

Please copy the USACHPPM-EOC w/all emails.

DEDS should prepare a daily consolidated exsum for the CG until this matter is over.

---Original Message---

From: COL USACHPPM
Sent: Wednesday, January 10, 2007 3:28 PM
To: Mr USACHPPM; Mr USACHPPM; LTC USACHPPM; LTC WRAIR-Wash DC; LTC WRAIR-Wash DC; LTC USACHPPM; LTC KACC-Ft Meade; LTC KACC-Ft Meade;
Cc: Mr USACHPPM; Mr USACHPPM; Mr USACHPPM; Mr USACHPPM; Ms USACHPPM; Ms USACHPPM; LTC WRAIR-Wash DC; LTC WRAIR-Wash DC; LTC USACHPPM; LTC USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

Just got off the phone with (CDR Kimbrough ACC) and her staff regarding the two cases of infant botulism from the Ft Meade community.

They're requesting our assistance to address the issue and have requested an EPICON.

A big concern is the risk of infection from exposure to contaminated soil. There's construction near the housing area where the two cases reside that's created a large debris pile of soil, concrete, etc. Local residents and the Ft Meade Garrison Command are very concerned that this may be the cause of the two infections.

There's been interest from outside medical organizations to help respond to this. The POC at KACC is the Chief of PM, LTC . Please ensure all communication is routed thru her so that we have a single message.

They're sending up a draft press release (attached) and botulism fact sheet that need to be reviewed NLT 1700 today. They're also looking for assistance drafting an article for the Ft Meade newspaper to help inform the community. This will require RISKCOM support. Coordinate w/DEDS ( in the office today.)

Please copy the USACHPPM-EOC w/all emails.

DEDS should prepare a daily consolidated exsum for the CG until this matter is over.

---Original Message---

From: COL OTSG
Sent: Wednesday, January 10, 2007 11:20 AM
To: Mr USACHPPM; Mr USACHPPM; LTC WRAIR-Wash DC; LTC WRAIR-Wash DC; Ms USACHPPM
Cc: Mr USACHPPM; Mr USACHPPM; Mr USACHPPM; Mr USACHPPM; Ms USACHPPM; Ms USACHPPM; LTC WRAIR-Wash DC; LTC WRAIR-Wash DC; LTC USACHPPM; LTC USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)

Heads up. No request for direct assist from us at this point. Has hit as a PAO issue.

---Original Message---

From: COL USACHPPM
Sent: Wednesday, January 10, 2007 11:12 AM
To: COL USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)
We've sent this forward to leadership as a prelim EXSUM, pending further information out of Ft. Meade.
I'm checking with both Drs. Russo and [redacted] for availability as medical experts. Thanks

Sent from my BlackBerry Wireless Handheld

-----Original Message-----
From: COL KACC-Ft Meade
To: COL USACHPPM; MAJ USACHPPM; LTC KACC-Ft Meade
CC: MS USACHPPM; [redacted]@us.army.mil
Sent: Thu Jan 18 17:48:49 2007
Subject: RE: Townhall meeting details

That sounds like the right approach and we'll work it.

I think it would be helpful to have a physician (you or someone you designate) describe botulism and infant botulism--BPT discuss cause of disease (in infants and adults) and how it is transmitted, how it is diagnosed, symptoms, treatment, pace of recovery--the general information that we know. If you are unavailable (I am not sure if the doc from AA County is planning to attend), I will have my DCCS (LT [redacted]) attend. My personal preference is to have the same people from CHPPM at these meetings to maximize our ability to communicate the same messages. I know your TEMPO is high so I understand if this is not possible.

I think it would be helpful for you to describe the steps of the investigation, any preliminary findings, timeline for completing the investigation, how the "report" of the investigation will be published--very similarly to how you described this last Tuesday evening at the focused town hall event.

I would like you to describe what actions we would like family members to take if they believe their infants are experiencing the symptoms and where they can go (or who they can call) if they have questions. I think we need to be prepared to put out our information desk phone number (who will then refer questions to you or the White Team), the phone number for the White Team, and the phone number for you/LT [redacted]. We obviously need to ensure the Information Desk and White Team know how to respond to incoming questions relating to botulism (I am fairly confident that they do). I know that these numbers have been published in the post paper, on the Ft Meade web, on our web, and on our fact sheets and news releases, but we need to put these numbers out at the meeting as well.

Please let me know if you disagree or have some additional comments/ideas. Thanks all for your continued support! Much appreciated,

"Army Strong--One Team"

[redacted]

COL, MS
Commanding
Ft Meade MEDDAC
Kimbrough Ambulatory Care Center
(301) [Redacted]
DSN 622-

-----Original Message-----
From: COL [mailto: COL@us.army.mil]
Sent: Thursday, January 18, 2007 5:00 PM
To: Ms USACHPPM; Ft Meade
Subject: RE: Townhall meeting details

The meeting is scheduled for 6:00 p.m., Lori (I hope you're feeling better).

I would like to keep the session informal. We'll introduce our team. I'd like someone from the EPICON first to
1) briefly discuss botulism in general and infant botulism in general
2) talk about what you are doing and the timeline you see

Then perhaps someone from KACC can discuss how they are handling calls requesting information and requests for appointments.

I will then ask [Redacted] to describe to the audience where they can go to keep posted on the disease and our activities.

I'll then open the floor for questions and concerns.

How does that sound to everyone?

COL [Redacted]

-----Original Message-----
From: Ms USACHPPM [mailto: USACHPPM@us.army.mil]
Sent: Thursday, January 18, 2007 2:14 PM
To: [Redacted]
Cc: NAJ USACHPPM; COL USACHPPM; USACHPPM@us.army.mil
Subject: Townhall meeting details

Hi [Redacted],

I'm just checking in as a followup to my phone message to you, particularly about the details of the town hall meeting next week (i.e., does it start at 6:30 or 7pm?). I'm guessing we'll also have a dry-run session ahead of time?

You all have been doing a great job of posting updated materials on the Meade webpage, so I'll work with the rest of the EPICON team to get some new information ready for this meeting (and eventually for the web, too). When you get a chance, I'd like to talk with you about your thoughts on meeting agenda, format, etc., based on what you've done in the past, as well as some of the things that have worked well at other sites I've been involved with.

Look forward to hearing from you.

[Redacted]
Senior Health Risk Communication Specialist
Ph: [Redacted]
Hi ma'am:

Is the fact sheet the one recently posted on the Meade webpage? If not, could you send a copy to us? Otherwise, I can just download the copy from your webpage. Yes, I have contacted both the ... and with the following results:

I spoke with Ms. on Sat 13 Jan. She was quite harried, and said they were busy all weekend. We did speak for about 5 minutes and, in my opinion, still sounded somewhat agitated/ skeptical that the Army still isn't doing anything to find the cause. I tried my best to reassure her that the Fort Meade team was working with Anne Arundel County, and was consulting with CDC and other experts to make sure we were looking into all possible options and to ensure that our proposed actions were sound. I also tried to persuade her to arrange a time to speak with me at any time/location/method that was convenient for her (i.e., day/night/weekend/weekday/ her house/over the phone). In the end, she was very nice, much more calm, and did take my phone numbers, saying she would call me if she was interested. I asked if I could call her back later in the week to see if she might have time, and she said ok. I tried to call again yesterday, but got no answer and there was no answering machine. MAJ ... and I agreed that maybe it would be best to leave it, unless you all believe I should continue to try.

I spoke with Ms. yesterday, and she was very gracious. I believe she was sincere in her responses. She said she had no concerns, and that she thought the Garrison and Kimbrough were doing what they should be doing to look into the issue. She specifically mentioned that COL/ SGM had been to her house twice, that she'd gotten two flyers, that there had been a meeting with the Oliver Court residents this past week, and that there is another meeting this past week. As far as meeting her needs go, she said, "I'm good." She did not know of anyone else with concerns or with young children. I did give her my phone numbers in case she did come across anyone else I/ we might contact. (Ms. did specifically mention that the meeting with the Oliver Court residents was very helpful in addressing the concerns of the residents in that area, and that this particular meeting was a good idea).

My colleagues also took the name/phone number of one additional Oliver Court resident at the Tuesday night meeting, and I have followed up with that individual, but have gotten no response.

-----Original Message-----
From: LTC KACC Ft Meade
Sent: Thursday, January 18, 2007 3:09 PM
To: Ms USACHPPM
Cc: Mr USACHPPM; COL USACHPPM;

Subject: RE: Oliver Court mtg questions

Ms. ,
I certainly understand. The Fact Sheet was written and dispersed to the clinics, pharmacy, waiting areas etc......but I do appreciate the offer.

Were you able to reach the or schedule w/ the ??

Thanks
LTC

-----Original Message-----
From: Ms USACHPPM
My apologies for missing Tuesday night's meeting, but I hear things went well. Based on the notes I see in the attached file that my colleagues so kindly captured, I would like to offer to write up the fact sheet that parents requested at that meeting (reflected in question 4 on the attached file). If you would like me to do that, I would be glad to do so.

-----Original Message-----
From: Ms USACHPPM
Sent: Wednesday, January 17, 2007 12:09 PM
To: Ms USACHPPM
Cc: Mr USACHPPM; Ms USACHPPM
Subject: The team effort

Here are the questions presented as we heard them. I am sure I will share with you how his perception of the meeting last night.

"They don't care that you know until they know that you care."
Will Rogers

-----Original Message-----
From: Mr USACHPPM
Sent: Wednesday, January 17, 2007 12:03 PM
To: Ms USACHPPM
Subject: FW:

Looks like you captured almost all of the questions.

I added two in yellow.

-----Original Message-----
From: Ms USACHPPM
Sent: Wednesday, January 17, 2007 11:39 AM
To: Ms USACHPPM
Cc: Mr USACHPPM
Subject:
"They don't care that you know until they know that you care."  
Will Rogers
Completely agree with you. I understand that you all did a very good job of getting that point across this past Tuesday night, and it's a point we'll need to continue to drive home as often as possible in order to try and "manage" (if that's possible) community expectations -- hopefully with the help of others (i.e., Dr. Russo? Or others like her). If others are not willing to step out and say it, I've been trying to gather non-military resources that state so. Not finding a cause will take not only repetitive messages to that effect, but would benefit from being repeated in-person in the coming days/weeks to allow people the chance to discuss the "why" factor (i.e., incorporate into appropriate briefings, volunteer to speak at appropriate community meetings, etc.).

Also, as and I (and the rest of the EPICON) have discussed, suggest also including a quote about the fact that Meade/EPICON are collaborating with local and state experts, as well as the CDC and other national experts. Knowing that "the Army" isn't doing this investigation in a vacuum, so to speak, is not only a true statement, it's a smart decision because it will help make sure the investigation is done as thoroughly and soundly as possible, and we should be talking about it.

-----Original Message-----
From: Ms USACHPPM
Sent: Thursday, January 18, 2007 3:27 PM
To: LTC KACC-Ft Meade
Cc: Ms USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

LTC

You might consider including in your quote or somewhere in the intro of the commander's message that even a thorough, scientific investigation may not resolve the question of cause. (COL mentioned to COL and me that some previous cases have not enjoyed clear-cut resolution--I don't have specifics on her research.) Fort Meade has brought a lot of expertise, Army and civilian, to bear on the problem; still, it might be advisable to sound a cautionary note so that we don't set up a situation where our expertise comes into question by the community because we didn't pinpoint the cause.

A more minor point: We'd prefer no speculation either before or after the investigation. I would suggest, "It is premature to speculate about a particular source. While we are using the best scientific methods and both Army and Civilian expertise, it is possible that the investigators will not identify the cause of these two babies' illness."

Copying because I think she's working on some part of this material as well.
USACHPPM: Saving Lives & Resources--Prevention is the Key.

-----Original Message-----
From: LTC KACC-Ft Meade
Sent: Thursday, January 18, 2007 12:39 PM
To: USACHPPM
Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

Press Release to follow....

LTC

-----Original Message-----
From: COL KACC-Ft Meade
Sent: Thursday, January 11, 2007 2:22 PM
To: LTC KACC-Ft Meade
Cc: Ms USACHPPM
Subject: FW: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

Please forward to the Fact Sheet and Press Release that we prepared last evening.

COL

"Army Strong--One Team"

COL, MS
Commanding
Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301)
DSN 622-

-----Original Message-----
From: Ms USACHPPM
Sent: Thursday, January 11, 2007 12:02 PM
To: Mr USACHPPM
Cc: Mr USACHPPM; COL USACHPPM; USACHPPM-EOC; LTC WRAIR-Wash DC; Ms
USACHPPM; MAJ USACHPPM-Wash DC; MAJ
USACHPPM; LTC KACC-Ft Meade; LTC COL
KACC-Ft; LTC USACHPPM; LTC USACHPPM;

Subject: RE: Infant Botulism (UNCLASSIFIED)-EPICON REQUESTED

May I have a copy of the approved botulism fact sheet?

Thanks,

U.S. Army Center for Health Promotion
& Preventive Medicine
(410) Army.mil

USACHPPM: Saving Lives & Resources--Prevention is the Key.

-----Original Message-----
Just got off the phone with (CDR Kimbrough ACC) and her staff regarding the two cases of infant botulism from the Ft Meade community.

They're requesting our assistance to address the issue and have requested an EPICON.

A big concern is the risk of infection from exposure to contaminated soil. There's construction near the housing area where the two cases reside that's created a large debris pile of soil, concrete, etc. Local residents and the Ft Meade Garrison Command are very concerned that this may be the cause of the two infections.

There's been interest from outside medical organizations to help respond to this.

The POC at KACC is the Chief of PM, LTC (email above). Please ensure all communication is routed thru her so that we have a single message.

They're sending up a draft press release (attached) and botulism fact sheet that need to be reviewed NLT 1700 today. They're also looking for assistance drafting an article for the Ft Meade newspaper to help inform the community. This will require RISKCOM support. Coordinate w/DEDS (in the office today.)

Please copy the USACHPPM-EOC w/all emails.

DEDS should prepare a daily consolidated exsum for the CG until this matter is over.

-----Original Message-----
From: [redacted] COL USACHPPM
Sent: Wednesday, January 10, 2007 11:12 AM
To: [redacted]
Cc: [redacted]
Subject: FW: Infant Botulism (UNCLASSIFIED)

Heads up. No request for direct assist from us at this point. Has hit as a PAO issue.

-----Original Message-----
From: [redacted] COL OTSG
Sent: Wednesday, January 10, 2007 11:12 AM
To: [redacted]
Subject: FW: Infant Botulism (UNCLASSIFIED)
We've sent this forward to leadership as a prelim EXSUM, pending further information out of Ft. Meade.
Agree about no formal presentations -- was just referring to the "talks" or information people will be presenting. I don't have any specific handouts in mind, other than some kind of update fact sheet from the EPICON, if COL P believes it's warranted.

-----Original Message-----
From: COL KACC-Ft Meade
Sent: Friday, January 19, 2007 11:57 AM
To: Ms USACHPPM; COL USACHPPM; MAJ USACHPPM; LTC KACC-Ft Meade
Cc: MAJ USACHPPM; LTC KACC-Ft Meade
Subject: RE: Townhall meeting details

The format for this town hall should be the same as Tuesday evening--no formal presentations needed. Not sure what additional handouts you are referring to in your e-mail below. Please ensure we have good visibility on medical information to be provided to this Community prior to--the intent is to keep this meeting as focused as this past Tuesday evening.

"Army Strong--One Team"

COL, MS
Commanding
Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) ...
DSN 622-

-----Original Message-----
From: Ms USACHPPM
Sent: Friday, January 19, 2007 8:27 AM
To: COL USACHPPM; COL KACC-Ft Meade; MAJ USACHPPM; LTC KACC-Ft Meade
Cc: MAJ USACHPPM; LTC KACC-Ft Meade
Subject: Re: Townhall meeting details

Agree with the gist of the topics to be covered, and especially the informal approach. I'm also very hopeful that Dr. Russo will be able and willing to participate. Suggest, however, that we allot ample time for open discussion and respectfully suggest that presentations be kept succinct to allow the audience to "drive" the level of detail the speakers provide. Ideally, would like to see all presentations completed in 20 minutes or less. And as a suggestion, would you consider inviting (in other words, "scheduling") the media ahead of time (maybe 30 minutes or so?) in order for them to get their soundbites without disrupting/delaying the meeting start time?... And what kinds of handout materials are you looking to use? Depending on the EPICON team discussions, we may develop something (i.e., about completed actions, timeline, etc.)... We'll also bring along some generic CHPPM materials... I'm guessing, you'll have some kind of pre-meeting Tuesday afternoon...? If I can do anything else to help prepare, just let me know....
-----Original Message-----
From: COL USACHPPM
Sent: Thursday, January 18, 2007 5:59 PM
To: COL KACC-Ft Meade; MAJ USACHPPM; LTC KACC-Ft Meade
Cc: Ms USACHPPM; us.army.mil
Subject: Re: Townhall meeting details

I'm checking with both Drs. Russo and ___ for availability as medical experts.
Thanks

------ Original Message ------
From: COL KACC-Ft Meade
To: MAJ USACHPPM; us.army.mil; COL USACHPPM; LTC KACC-Ft Meade
Cc: Ms USACHPPM; us.army.mil
Sent: Thu Jan 18 17:48:40 2007
Subject: RE: Townhall meeting details

That sounds like the right approach and we'll work it.

I think it would be helpful to have a physician (you or someone you designate) describe botulism and infant botulism--BPT discuss cause of disease (in infants and adults) and how it is transmitted, how it is diagnosed, symptoms, treatment, pace of recovery--the general information that we know. If you are unavailable (I am not sure if the doc from AA County is planning to attend), I will have my DCCS (LTC ___) attend. My personal preference is to have the same people from CHPPM at these meetings to maximize our ability to communicate the same messages. I know your TEMPO is high so I understand if this is not possible.

I think it would be helpful for you to describe the steps of the investigation, any preliminary findings, timeline for completing the investigation, how the "report" of the investigation will be published--very similarly to how you described this last Tuesday evening at the focused town hall event.

I would like you to describe what actions we would like family members to take if they believe their infants are experiencing the symptoms and where they can go (or who they can call) if they have questions. I think we need to be prepared to put out our information desk phone number (who will then refer questions to you or the White Team), the phone number for the White Team, and the phone number for you/LTC ___ if needed. We obviously need to ensure the Information Desk and White Team know how to respond to incoming questions relating to botulism (I am fairly confident that they do). I know that these numbers have been published in the post paper, on the Ft Meade web, on our web, and on our fact sheets and news releases, but we need to put these numbers out at the meeting as well.

Pls let me know if you disagree of have some additional comments/ideas. Thanks all for your continued support! Much appreciated,

COL ___

"Army Strong--One Team"

COL, MS
Commanding
Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
(301) 991-2000
DSN 622-

-----Original Message-----
From: [mailto:us.army.mil; us.army.mil]
Sent: Thursday, January 18, 2007 5:00 PM
To: Ms USACHPPM; MAJ USACHPPM;
   COL USACHPPM;
   LTC KACC-Ft Meade;
   COL KACC-Ft Meade
Subject: RE: Townhall meeting details

The meeting is scheduled for 6:00 p.m., [I hope you're feeling better].

I would like to keep the session informal. We'll introduce our team. I'd like someone from the EPICON first to
1) briefly discuss botulism in general and infant botulism in general
2) talk about what you are doing and the timeline you see

Then perhaps someone from KACC can discuss how they are handling calls requesting information and requests for appointments.

I will then ask [I hope you're feeling better] to describe to the audience where they can go to keep posted on the disease and our activities.

I'll then open the floor for questions and concerns.

How does that sound to everyone?

COL [I hope you're feeling better]

-----Original Message-----
From: [mailto:us.army.mil]
Sent: Thursday, January 18, 2007 2:14 PM
To: [mailto:us.army.mil]
Cc: MAJ USACHPPM; COL USACHPPM;
Subject: Townhall meeting details

Hi [I hope you're feeling better],

I'm just checking in as a followup to my phone message to you, particularly about the details of the town hall meeting next week (i.e., does it start at 6:30 or 7pm?). I'm guessing we'll also have a dry-run session ahead of time?

You all have been doing a great job of posting updated materials on the Meade webpage, so I'll work with the rest of the EPICON team to get some new information ready for this meeting (and eventually for the web, too). When you get a chance, I'd like to talk with you about your thoughts on meeting agenda, format, etc., based on what you've done in the past, as well as some of the things that have worked well at other sites I've been involved with.

Look forward to hearing from you.

[us.army.mil]
Senior Health Risk Communication Specialist
Ph:
Sorry -- I forgot you all don't invite media onpost to these meetings. No, don't invite them. At every other site I've worked, media have been allowed to cover onpost meetings, so I was just suggesting a means to accommodate them. Please do not invite them specifically since you all have protocols in place.

-----Original Message-----
From: [mailto:USACHPPM.army.mil]
Sent: Friday, January 19, 2007 2:11 PM
To: [mailto:USACHPPM]
Subject: Re: Townhall meeting details

Normally we don't invite media to town hall meetings. Are you saying you want media?

-----------------------
Sent from my BlackBerry Wireless Handheld
Absolutely! Next trip is Town Hall. We'll keep you involved all the way. Do you need to write up a report or manuscript for this as well? Best wishes.

Sent from my BlackBerry Wireless Handheld

-----Original Message-----
From: LTC KACC-Ft Meade
To: COL USACHPPM
Sent: Thu Jan 18 08:17:47 2007
Subject: Request

Good Morning Sir,
I am currently working on my DrPH and this is my last year of course work. I would very much like to be involved in the Epi Investigation as much as possible as this would be an awesome learning experience for me. Please let me know when the team will be returning so that I could set aside time to go out with them.

Again thanks much.

LTC
CHPPM was aware of the infant botulism case that was reported in RMES 5 OCT 2006. Actually, there was an EPI-X report about botulism linked to carrot juice (6OCT2006) and I had contacted Ms. [Infection Control Nurse at WRAMC] about this (see message below).

Steve

Any chance you could let us know the likely source of infection? The cases in the outbreak seem to be linked to intake of a specific brand of carrot juice.

Dr. [Infection Control Nurse], thank you for this.

RN, MS, COHN-S, CIC
Walter Reed Army Medical Center
Nurse Specialist
Infection Control and Epidemiology Service
6900 Georgia Ave N.W.
Washington, DC 20307
fax [Redacted]
Sorry I didn't get this to you on Friday.

The daily report is attached.
As always you were way ahead of the rest of the world!

I gave additional thought to the town hall for tomorrow evening; and am even more convinced now that the following will make the best team, subject to availability. Steve, this may finally present the opportune time to not only discuss how good our surveillance is (if asked or alluded to as an issue), but also to speak as a resident of Meade:

Dr. Blythe

Comments? Problems? I'm open,

---- Original Message ----
From: MAJ USACHPPM-Wash DC
Sent: Monday, January 22, 2007 11:03 AM
To: MAJ USACHPPM; MS USACHPPM
Subject: RE: RMES DAILY REPORT (06 October 2006)

CHPPM was aware of the infant botulism case that was reported in RMES 5 OCT 2006. Actually, there was an EPI-X report about botulism linked to carrot juice (6OCT2006) and I had contacted Ms. (infection control nurse at WRAMC) about this (see message below).

---

From: USACHPPM
Sent: Tuesday, October 10, 2006 2:16 PM
To: Ms WRAMC-Wash DC
Subject: RE: RMES DAILY REPORT (06 October 2006)

Any chance you could let us know the likely source of infection? The cases in the outbreak seem to be linked to intake of a specific brand of carrot juice.

---
To: USACHPPM
Subject: RE: RMES DAILY REPORT (06 October 2006)

Dr. [Redacted] thank you for this.

[Redacted] RN, MS, COHN-S, CIC
Walter Reed Army Medical Center
Nurse Specialist
Infection Control and Epidemiology Service
6900 Georgia Ave N.W.
Washington, DC 20307

From: [Redacted]
Sent: Monday, October 09, 2006 10:04 AM
Subject: RMES DAILY REPORT (06 October 2006)

The daily report is attached.
CHPPM was aware of the infant botulism case that was reported in RMES 5 OCT 2006. Actually, there was an EPI-X report about botulism linked to carrot juice (6OCT2006) and I had contacted Ms. (infection control nurse at WRAMC) about this (see message below).

Any chance you could let us know the likely source of infection? The cases in the outbreak seem to be linked to intake of a specific brand of carrot juice.
Subject: RE: RMES DAILY REPORT (06 October 2006)

Dr. thank you for this.

RN, MS, COHN-S, CIC
Walter Reed Army Medical Center
Nurse Specialist
Infection Control and Epidemiology Service
6900 Georgia Ave N.W.
Washington, DC 20307

From: USACHPPM
Sent: Tuesday, October 10, 2006 8:32 AM
To: Ms WRAMC-Wash DC
Subject: FW: RMES DAILY REPORT (06 October 2006)

Sorry I didn't get this to you on Friday.

From: AMSA MAIL
Sent: Friday, October 06, 2006 10:04 AM
Subject: RMES DAILY REPORT (06 October 2006)

The daily report is attached.
The first botulism case was also discussed here by Ms. Meade, USACHPPM-Wash DC.

We apologize, but the previous transcript sent out was labeled incorrectly. Here is the correct transcript from 26 October to be reviewed for comments.

Thank you,
Attached is the transcript from the 26 October Epi-Chiefs Telecon which has the “track changes” turned on so everyone can see the edits made to the original transcript. Also attached is the agenda and a Q Fever document submitted by Dr. Luther Lindler.

This transcript is not an official document, but rather a memory aid. If you have comments or edits to the first draft that you'd like to be incorporated please send them to Dr. at <email>. We will then incorporate those and send out the final draft two to three days prior to the next meeting along with the call-in information.

The next Epi-Chiefs meeting is on 9 November 2006. A reminder email will go out again next week with the transcript and agenda and any changes/comments that are sent to Dr. <email>.
Please mark your calendars accordingly.

Thank you,

DoD Global Emerging Infections System
503 Robert Grant Ave
Silver Spring, MD 20910
(301) [redacted] Tel; (301) [redacted] Fax
DSN 285
EPIDEMIOLOGY CHIEFS' TELECONFERENCE
THURSDAY, OCTOBER 26, 2006
The meeting was held via teleconference at 11:00 a.m. EDT

PRESENT:

Dr. (AMSARA)
Ms. (WRAMC)
LT. (DoD-GEIS)
Col. (CENTAF)
Dr. (AFIOH)
Mr. (AFIOH)
Ms. (DoD-GEIS)
Dr. (AFIOH)
Mr. (NHRC)
Mr. (AFIOH)
Dr. (DoD-GEIS)
LTCol. (DoD-GEIS)
LTCol. (AFIOH)
Dr. (DoD-GEIS)
Dr. (DoD-HA)
LCDEP (AFIP)
Dr. (AFIP)
Dr. (DoD-GEIS)
LCDEP (Uniformed Services Institute)

AGENDA ITEM:  PAGE
1) Introduction and Administrative Issues    2
2) Announcements from Any Attendees    2
3) Current Topics    2
   A) Outbreak(s)    2
   B) Recent Mortality    4
   C) Respiratory Disease    4
   D) Influenza    5
   E) Q fever    7
4) Roundtable    8
PROCEEDINGS  
(11:00 a.m.)

1) INTRODUCTION AND MEETING ADMINISTRATIVE ISSUES

LtCol: Why don’t we go ahead and begin. I’m sorry. We joined right at the last minute. We had another meeting that almost ran into this. So, if I could I ask people to identify?

MS: Good morning. This is from Walter Reed Army Medical Center.

DR. This is calling from Force Health Protection and Readiness Program, DoD.

LCDR: You get from AFIP.

LtCol: This is Lieutenant Colonel and Dr. from AFIOH.

MR. from AFIOH is also on.

Center.

CAPT: Captain from NEHC, and joined by Lieutenant Commander, a Preventive Medicine Resident from LSUHS.

LtCol: Okay. Let me ask the group here at the GEIS Central Hub to go around the table and introduce themselves.

DR. 

LT: Lieutenant

DR. 

DR. 

MS. 

LtCol: Okay. And do we have anyone now who has not identified?

(No response.)

LtCol: Okay.

2) ANNOUNCEMENTS FROM ANY ATTENDEES

LtCol: Are there any announcements from any of the attendees?

(No response.)

LtCol: If not, we’ll go on to the current topics.

3) CURRENT TOPICS

A) OUTBREAK(S)

LtCol: The first topic on the agenda is updates on any outbreaks that have been reported. Do we have anything from any of the attendees?

MR. This is in San Diego. I have a couple of things. I see the meningitis case from Parris Island is on the agenda, and we did determine that was serogroup C, and we reported that to Dr. and to the MCRD Parris Island folks.

And one other thing I can report in this realm of outbreaks, and I don’t know if anyone else is going to comment on this, but we were contacted by CHPPM, who’s at Fort Leonard Wood this week, investigation a group A strep outbreak among a unit there, and they’re going to ship us some of the isolates this week. They’re going to ship them today. We’ll begin to test them for M-typing.
MR. I believe that was Leonard Wood, Fort Leonard Wood. 

Yesterday told us a little bit about that outbreak, but we really don't have any details.

On the line, do we have anyone from CHPPM today that would know something about that, or Dr. [Name]?

DR. This is [Name]. There's a team of five individuals who've been at Fort Leonard Wood since the weekend. They're evaluating an outbreak of group A strep disease, mainly focused in one battalion of those basic trainees at Fort Leonard Wood. Over the past month or so, there have been several companies that have had relatively high rates of febrile respiratory illnesses with group A strep throat cultures, and in the past month or so, there have been two individuals who have had necrotizing fasciitis that have required their care in a civilian tertiary care hospital.

So, with relative high rates of group A strep confined pretty much to one unit, or one battalion, with several of those companies not receiving benzathine penicillin at the time that they entered training, and with at least two cases of invasive group A strep disease, it was decided that a thorough investigation of the situation ongoing there was required, and part of that investigation then is to discuss options for intervention, and part of the concern, obviously, is that there at least a temporary hiatus in the supply of benzathine penicillin. So, for the first time, probably in 50 years or so, prevention and response to group A strep outbreak in basic training populations does not provide the option for mass prophylaxis with benzathine penicillin, and the things that are being considered as prophylaxis with oral penicillin and other things.

So, that's ongoing. The investigation has been going on since this week and will continue, I think, through the end of this week and possibly into next and when the team has a chance to summarize their findings and make their recommendations to the folks there at Fort Leonard Wood, I'm sure they'll put it together and disseminate it to the appropriate folks throughout the DoD.

LtCol This is again. Is there further discussion?

(No response.)

LtCol If not, let's go on.

Is there any update on the malaria in Afghanistan returnees from anyone on the line? (No response.)

And I don't think we had CHPPM on the line besides AMSARA, but do we have any update on pregnancy outcomes in Europe that was mentioned at the previous meeting? (No response.)

LtCol And if not, if we don't have CHPPM on the line, let's put that off until the next meeting and move on.

Is there any update on the infant botulism? WRAMC? (No response.)

MS. Yes, this is [Name]. I just wanted to report good news. The baby recovered and left on day 17 of hospitalization here at WRAMC. He had just a little bit of neurologic sequelae. His head wasn't quite as strong as when he came in, but other than that, he's doing well. So, that's all I have to report.

LtCol Thank you.
The next topic, TB on the USS Ronald Reagan. Is there an update from NEHC. There is no update at this point. I think they're just starting their second round of TSTs. So, we'll hear more in the next month or so, I imagine.

LtCol. Thank you.

Next, the case that was described as a possible encephalitis, do we have an update from AFIP or WRAMC.

LCDR. This is... Was that the death?

LtCol. The case I'm thinking of, I believe described it, and the information was basically awaiting autopsy and other findings.

LCDR. Right. There was a neuropath consult, and I do not have the results of that. The initial read was just non-specific and we never did find an agent for that. He said it would probably take several months.

LtCol. Thank you. Yeah, I realize we're sort of pushing the time when we ask questions about that, but don't mean to push.

Are you still there?

MS. Yes, sir, I am.

LtCol. Could you just briefly describe that case, maybe summarize it in a minute what that case was about and why we were concerned about an infectious cause.

MS. If I remember right, we had reported on it earlier. The reason that it was unusual was this is essentially a healthy woman, if this is the case I'm remembering, and just had a sudden onset of seizure and fever and no laboratory specimen of anything that we could find to note any etiology at all, and she ultimately died. I mean, I don't have anything more. I really wasn't prepared to report on her today. I'm sorry.

LtCol. That's okay. That is the one.

MS. Yes.

LtCol. I just wanted to be sure that... and the rest of the group were... We had discussed it I think on one of the meetings where you weren't here, and all the labs have been inconclusive. Even the final ones, I believe, Dr. you had mentioned, we really have no etiology for this, which is really unusual. So, that's all I have.

LtCol. Okay. Thank you.

MS. You're welcome.

B) RECENT MORTALITY

LtCol. Is there any recent mortalities to discuss?

LCDR. Thankfully, no new cases.

LtCol. Thank you.

C) RESPIRATORY DISEASE

LtCol. Respiratory diseases, in general? Okay, yes, this is... from San Diego. I have a couple of things.

In terms of FRI rates at recruit camps, it seems like the rate at Great Lakes last week was elevated. That's the week ending the 21st.
Fort Jackson had an elevated rate the week prior to ending the 14th. We don't have their data yet for last week, so, we'll be watching that. The report will come out later today, one that you should all get.

Also, our collaborators here in San Diego, the local county public health labs, referred to us a case of some specimens from someone who had febrile respiratory illness, a civilian, who had recently traveled to the Pacific rim, I can't recall exactly where, but they were concerned about, obviously, a possible influenza or avian influenza. They had ruled it out at their lab with their initial test, but they wanted us to confirm and to do further testing, and we also did rule out influenza and we have a preliminary result of RSV in that patient. We're going to culture that specimen now and, hopefully, it will confirm that it was RSV, but just an example of how we are really starting to work more closely with the local public health lab because they're aware of our capabilities and vice versa, and I think it's been a mutually beneficial arrangement.

LtCol All right. Thank you, Is there discussion from any of the group on respiratory disease as reported it or any other respiratory disease topics?

DR. this is The increased rates in Great Lakes, is that adeno? Do you have any details on that?

MR. Well, the most recent specimens that we have tested from Great Lakes, which would not be from that period, but, you know, Great Lakes is up and down all the time, all we've seen is adeno from there. We haven't seen any influenza yet from Great Lakes, and I should also mention, when I'm talking about FRI rates, that Leonard Wood surprisingly, I guess, doesn't really have anything in terms of their overall FRI numbers. I don't see anything out of the ordinary right now. They had about 60 cases in the past week of FRI, and that's not unusual for a camp of that size.

DR. And the adenovirus that you've seen, is it all adenovirus 4?

MR. Well, that's an interesting discussion in itself. It seems that over the past say six months, we're seeing a much wider variety of sero-types than we had in the past say four or five years. As you know, it's been almost all type 4s at all camps in that period of time, but again, this data is kind of preliminary and I haven't gotten it all sorted out yet, but there's definitely a wider variety of sero-type seen, including sero-type, if I'm not mistaken, sero-type 14, which we've never seen before, and this is all, of course, right in the midst of us starting being involved with the adenovirus vaccine trials at Great Lakes and Fort Jackson. So, everyone is scrambling around to try to figure this out.

DR. And this is all microneutralization?

MR. No, it's, in fact, it's not micro, it's all PCR sero-typing, but we've had good success with that, you know, we've been using it for the last couple of years, and it's been all type 4. So, we pretty much, we trust it pretty well our sero-typing, I mean, we do more than one primary and more than one test. So, we're pretty sure that these are accurate results, but we'll get those out, soon, but we're still trying to sort it out a little bit. ?

LtCol If there's no further discussion of respiratory disease, we'll go on to influenza.

AFIOH?
The big news, I guess, since the last meeting here at this end has been samples received from Peru. We received a big batch of specimens from Peru. These were samples collected between June and August '06, the majority of them. The clinical reference lab determined that the majority of these are influenza A. Real time PCR analysis indicates that the majority of them are H1N1 subtype, which is pretty interesting. They have about 120 or so total samples, and 95 of these have been H1N1 subtypes; 15 have been H3N2 subtypes, and the handful, 11 or so, are still pending.

So, it's a pretty significant finding compared to what we saw last year. It may indicate that this is going to be a mixed influenza season.

Luke, this is any (phone beeps) sequence information on those yet?

No, I'm just finishing right now all the subtype work and we're queuing these up for sequence analysis. I'll be very curious to see if they look like your isolates from NHRC or those others that we had talked about at the previous meeting.

All right.

Outside of the Peru isolates, we have received four isolates from Honduras. All four of those were influenza A, H3N2 subtypes, and we received a handful of isolates from Kenya, and these are all influenza B and those two are in the sequence queue. We've also received another handful of isolates from Hawaii, and interestingly, these too have been influenza A and they've been the H1 subtype showing that H1 is circulating outside of the Peru area, and these were obtained fairly recently, September and October. So, these are recent.

Luke, the Peruvian samples, you know, they come from the lab in Peru. Were there other countries involved in those sampling or were they exclusively from Peru itself?

Colonel McCall, do you have that RSRH permission?

We don't have that with us, but we'll check on that and get with you.

I don't either. I just have Peru written from what I have right in front of me right it just says Peru, but I do believe that there were two or three different locations that they were funneled in through.

AFIOH, on the Honduras specimen, there was discussion in email and I think only a limited number of people have really seen that between CHPPM-West and people in the flu program. The description was of cases, actually, an outbreak in the Honduran area, I don't know exactly where, but with samples that you had already received, the thought is what they're experiencing is an H3N2 outbreak there. Does that pretty well summarize what you know at this time?

Yes. The subtyping information on what we have is that they're all, they've all been H3 subtypes.

I talked to he was here yesterday, and it appears that these isolates are civilians and they do not include military personnel from Comayagua, from Palmerola Air Base.

Okay. Is there any discussion of influenza from any of the other participants on the line?

You're asking about influenza?

Yes.
This again. I have a couple of things. We did find two new cases from Leonard Wood recently. They were both from mid-September. They were both H3N2 subtypes. They have not been sequenced yet. One of the trainees had been vaccinated prior, and we're following it up. We should have more Leonard Wood results from even more Leonard Wood results from even more recent specimens, hopefully today, and we'll include that in the report if it's available.

I don't think I have anything else. Oh, I reported last time on a small number of cases aboard a ship, the USS Tallulah. Those four cases were from different locations after a port stops in Phuket, Thailand, and in Pearl Harbor. The Pearl Harbor isolates, I believe, were H3N2, while the one isolate that came out of Thailand was H1N1, and those also have not been sequenced yet.

I think that's all I have about influenza.

Any questions or other thoughts about influenza before we move on?

(No response.)

E) Q FEVER

LtCol: If not, is there any update on Q fever from any of the group?

(No response.)

LtCol: Here at the Central Hub, I wrote a short piece and shared it with us on diagnostic testing for Q fever. If he's agreeable and people on this telecon would be interested, we can send that out.

UNIDENTIFIED MALE SPEAKER: Yeah, that's fine.

DR.: I don't have a problem.

LtCol: We'll just include it with the minutes and announcements of this meeting then.

DR., O'DONNELL: Yeah, this is I'd certainly like to see that. I sat in on a recent briefly from the Institute of Medicine, which (indiscernible) report on infectious diseases during the Gulf War, as well as during OIF and OEF and the subject of Q fever and the recently reported cases came, and afterwards in a discussion with one of the committee members, he allowed us how the whole serology of Q fever can be a slippery slope depending upon how results are interpreted and how the laboratory is doing it, and so, it's somewhat, at least to me, and I'm not a laboratorian, but it's somewhat reminiscent of the problems with things like Lyme Disease serologies. I guess care is necessary when interpreting, and so, if you got some take on Q fever serologies, I'd certainly be interested.

DR.: Yeah, this is basically a very short, you know, like a one pager or a one and a half pager with a few references on sort of the bottom line from, you know, all I could get or from the literature.

DR.: That probably will be a lot more informative to me than my own personal reading on the subject. That would be nice to see.

LtCol: Okay. Thank you. I found it very helpful. Okay. Let's move on to the roundtable discussion, but first, let me ask anyone who has joined us since we identified to go ahead and identify now.

Col: This is Colonel from CENTAF.

DR.: This is , I joined a little while ago. Thank you.

LtCol: Okay. I'll go ahead and start the roundtable.
4) ROUND TABLE DISCUSSIONS

LtCol. I don't think we have the CDC Liaison with us today.

(No response.)

LtCol. NHRC.

A) NHRC

MR. No, nothing further, thanks.

LtCol. Thanks, Tony.

B) NEHC

CAPT. Hi, Captain. We had a report of a Sergeant, Marine Sergeant from Camp Lejeune who was admitted to the Naval Hospital there with falciparum malaria. That was 10 days after he got back from a six week assignment in Chad. We're trying to arrange to get the blood specimens sent up to WRAIR to Dr. Milhous and the prophylaxis he was on was doxycycline but he did admit missing a few doses. So, that's about all NEHC has to report.

LtCol. Thanks. And Dr. lab will welcome the specimen, I'm sure. If you have any difficulty getting it there, please let me know. We're trying to encourage the submission of just this kind of specimen, as you know, and I really appreciate you bringing that to the attention of all the other folks on the telecon.

Okay. AFIOH.

C) AFIOH

DR. This is. I wanted to be able to report that we started the Quantiferon on Gold Mantoux trial. We've been working on that for some time, but it had come up earlier with the SS Ronald Reagan when they were hoping to be able to use that. It is a blood test, obviously, and it's one that we're going to be testing in trial with the TSTs in parallel. It's a ten month trial but we hope to have it completed sooner. They have begun hiring the staff already at Wilford Hall. AFIOH will be running the actual readings of the assay. We'll be doing 2400 BMTs. Just to let you know that it's finally underway.

LtCol. It's good to hear that. Thank you.

DR. This is. I want to give you an update. We have Lieutenant Colonel (CHPPM) this week visiting UCOM and CHPPM-Europe to finalize the details on the UCOM Landstuhl medical-influenza surveillance processes. They'll be able to give us more details when they get back next week or the week after.

We additionally were able to get them to Hungary to begin that collaboration in having Dr. (ph.) had met them yesterday at the airport and they're today to finalize the processes for the influenza surveillance site there.

In addition to that, we got the memorandum finalized for the Kenya sites for influenza surveillance. So, we're making good progress on those.

Furthermore, I'd like to invite any of you who may be in the area from AMSIS to meet with us while you're in the area, if that would be helpful for you. Let us know and we'd be glad to visit with you either at AMSIS or at the site here, if that would be helpful.

That's all I have.

LtCol. Thanks, Dr. This memo
with does this include, or how is that worked out, if you know?

DR. I don't know. Say that again. What was the --

DR. How is the sharing of specimens and whatnot, if you know, shared between the CDC and USAMRU-K in Nairobi. Is that --

DR. I don't know. I can send you a copy of the memorandum, if that'd be helpful.

DR. Yeah. If you could, I'd appreciate it.

DR. Okay.

LiCol. Thanks.

LiCol. Okay. Are there any questions regarding what's been just reported by AFIOH before I move on?

MR. One more thing from AFIOH. I received word from AFRIMS that one of the abstracts that we submitted in collaboration with AFRIMS to the American Society for Tropical Medicine and Hygiene in Atlanta, Georgia, was accepted. So, that will be presented, I believe, next week, and again, there are authors from both AFRIMS and AFIOH on that work. That work is the Nepal outbreak, the H3N2 outbreak in the summer of 2006.

LiCol. And that was speaking?

MR. Yes, sir.

LiCol. Thank you. Okay.

Outside of AMSARA, do we have anyone from CHPPM on the line?

(No response.)

LiCol. And then from CHPPM-West, I don't think they are on the line as they're traveling.

(No response.)

D) DoD-HEALTH AFFAIRS

DR. This is I don't think I have anything new to report.

LtCol. From the GEIS-Central Hub.

E) DoD-GEIS CENTRAL HUB

DR. I just want to report that we had a meeting with Lieutenant Colonel [indiscernible] and his staff from the Division of Preventative Medicine. They're involved with setting up and training of epidemiology teams in the Republic of Georgia (indiscernible) region, and they are interested in seeing if we are able to support expansion of seasonal influenza surveillance in that country.

The answer from our standpoint is definitely yes. We're going to work that out with NAMRU-3 because that's what the regional laboratory that would take care of that. Those samples, if we can set this up, would not go directly to AFIOH. They would go to NAMRU-3 since they already sample in Azerbaijan, in the neighboring country.

So, I just wanted to report on that and I'll update the group next time on where that stands.

Lt. This is. I have in my hands a draft report from our NASA collaborator, Dr. Assaf Anyamba, on predicted global climatic conditions during the next year or so, and I'll send it around to the teleconference group when it's final, but I wanted to note the main point, which is a prediction of a moderate to strong El Nino southern oscillation or the NSO (ph.) event in the later part of 2006 through the early part of 2007; and that would involve heavy rain and flooding in coastal
East Africa, Kenya, and the northern part of South America on the western coast, including Peru and the southwest U.S., and conditions like that in all of those places have been linked with vector borne diseases and rodent borne diseases. So, it could be something to watch for over the next few months.

LtCol: Thank you. Anything else from the Central Hub?

If not, do we have NORTHCOM on the line today?

(No response.)

LtCol: I didn't hear from NORTHCOM or AFMIC.

(No response.)

WRAMC: Yes, hello, this is [Name]. I just wanted to give a quick update on *Acinetobacter* infections, which is my real job here. The rate of resistance to imipenem 2005 was 23 percent, and to date, in 2006, it's 41 percent of all positive cultures. So, we're seeing an increase in resistance. In August alone, among eight patients with a positive culture for resistant *Acinetobacter*, all eight were resistance to imipenem. So, that's a trend that we predicted and it's still continuing, and I just wanted to report on that, and I'll be reporting on that continuing. Thank you.

LtCol: Is there discussion from the group?

(No response.)

LtCol: Okay. Thank you.

CENTAF: Nothing significant to report here. Thank you.

Do we have anyone on the line from POPM, MAMC, or SOUTHCOM today?

(No response.)

LtCol: If not, is there anyone that I've missed?

(No response.)

LtCol: Okay. Is there any further discussion before we move on to the time of the next meeting?

(No response.)

LtCol: Proposed date is November 9th. Are there any objections to that?

(No response.)

LtCol: If not, I'll take that as a yes.

DR: Yeah, this is [Name]. I'm just going to bring up the fact that that's the week of the TROPME meeting. Thursday the 9th is the last day of the meeting, so I don't know if many of you will be gone. You might want to delay this until Friday or, I don't know, some other time.

UNIDENTIFIED FEMALE SPEAKER: Friday is a holiday.

DR: Okay.

UNIDENTIFIED FEMALE SPEAKER: Isn't it Veterans Day?

MS: Yes, the 10th is a holiday. What about moving it to the 16th?

LtCol: How does the group feel about that? NHRC?

MR: Anything would be fine with us.
Let me jump in here. We just checked the dates.

(Laughter.)

DR. [name] The TROPMED is 12th through the 16th, not the 5th through the 9th as I mentioned before.

UNIDENTIFIED FEMALE SPEAKER: Well, let's keep it to the 9th, I guess.

LT.COL. [name] Okay. We're hearing keep it to the 9th. Okay.

UNIDENTIFIED FEMALE SPEAKER: Fabulous.

LT.COL. [name] Very good. Well, once again, thank you for joining us. I'm guessing there's nothing else to discuss before we get off, but this is the last chance for anyone.

(No response.)

Okay. Once again, thank you.

(Whereupon, at 11:35 a.m. EDT, the foregoing matter was concluded.)
Ms. USACHPPM had also discussed this case briefly at the EpiChiefs meeting at the end of October.

--- Original Message ---
From: MAJ USACHPPM-Wash DC
Sent: Monday, January 22, 2007 12:14 PM
To: LTC KACC-Ft Meade; COL USACHPPM; MAJ USACHPPM; MAJ USACHPPM-Wash DC; Mr LMI; Ms USACHPPM
Subject: RE: RMES DAILY REPORT (06 October 2006)

As always you were way ahead of the rest of the world!

I gave additional thought to the town hall for tomorrow evening; and am even more convinced now that the following will make the best team, subject to availability.

This may finally present the opportune time to not only discuss how good our surveillance is (if asked or alluded to as an issue), but also to speak as a resident of Meade:

Dr. Blythe

Comments? Problems? I'm open,

--- Original Message ---
From: MAJ USACHPPM-Wash DC
Sent: Monday, January 22, 2007 11:03 AM
To: COL USACHPPM; Ms USACHPPM; MAJ USACHPPM; LTC KACC-Ft Meade; MAJ USACHPPM-Wash DC
Subject: FW: RMES DAILY REPORT (06 October 2006)

CHPPM was aware of the infant botulism case that was reported in RMES 5 OCT 2006. Actually, there was an EPI-X report about botulism linked to carrot juice (6OCT2006) and I had contacted Ms. (infection control nurse at WRAMC) about this (see message below).
Any chance you could let us know the likely source of infection? The cases in the outbreak seem to be linked to intake of a specific brand of carrot juice.

Dr. Tobler, thank you for this.

RN, MS, COHN-S, CIC
Walter Reed Army Medical Center
Nurse Specialist
Infection Control and Epidemiology Service
6900 Georgia Ave N.W.
Washington, DC 20307

Sorry I didn't get this to you on Friday.

The daily report is attached.
Ma'am:

The 1st case was listed as 3 OCT 2006. On the report entered into the RMES system, the date of onset was listed as 3 OCT 2006. The report was included in the RMES report sent out on 6 OCT.

Of note was that in the RMES report from 6 OCT is that it stated that AA County had been notified (so according to the report AA County was notified within 48 hours).

I spoke with the infection control nurse at WRAMC on 6 OCT.

I think the idea that Army Public Health didn't react to the first case until the second case is not necessarily true. It seems more correct to state that the second case prompted a more vigorous response.

BTW, for the second case it appeared on the RMES report on Monday 8 January. The EPICON was requested on the 10th of January.

I was wondering, does Ft. Meade/KACC enter its own RMEs or are the reports entered by Walter Reed. Can you tell me if KACC was notified by WRAMC about the cases that occurred and how quickly?

MAJ

-----Original Message-----
From: LTC KACC-Ft Meade
Sent: Monday, January 22, 2007 11:33 AM
To: MAJ USACHPPM-Wash DC; COL USACHPPM; MS USACHPPM
Subject: RE: RMES DAILY REPORT (06 October 2006)
Importance: High

Is this the 1st case that they are speaking of??

Thanks,
LTC

-----Original Message-----
From: MAJ USACHPPM-Wash DC
Sent: Monday, January 22, 2007 11:03 AM
To: MAJ USACHPPM; LTC KACC-Ft Meade
Subject: FW: RMES DAILY REPORT (06 October 2006)

CHPPM was aware of the infant botulism case that was reported in RMES 5 OCT 2006. Actually, there was an EPICON report about botulism linked to carrot juice (6OCT2006) and I had contacted Ms. (infection control nurse at WRAMC) about this (see message below).

Steve
Any chance you could let us know the likely source of infection? The cases in the outbreak seem to be linked to intake of a specific brand of carrot juice.

Dr. Tobler, thank you for this.

RN, MS, COHN-S, CIC
Walter Reed Army Medical Center
Nurse Specialist
Infection Control and Epidemiology Service
6900 Georgia Ave N.W.
Washington, DC 20307
fax @na.amedd.army.mil

Sorry I didn't get this to you on Friday.
The daily report is attached.
Maam:

It wasn't linked.

However, in the week that the first case was reported, CDC sent out an alert with EPI_X about botulism associated with carrot juice (foodborne botulism). When we saw the case in the RMES report we contacted ~at~ WRAMC to see if there was a link and what the cause was of the infant's botulism.

MAJ

Could we get a copy of the info?

Thanks much

LTC

Yes

Is this the 1st case that they are speaking of??

Thanks,

LTC
CHPPM was aware of the infant botulism case that was reported in RMES 5 OCT 2006. Actually, there was an EPI-X report about botulism linked to carrot juice (6OCT2006) and I had contacted Ms [infection control nurse at WRAMC] about this (see message below).

Steve

From: [USACHPPM]
Sent: Tuesday, October 10, 2006 2:16 PM
To: [Ms WRAMC-Wash DC]
Subject: RE: RMES DAILY REPORT (06 October 2006)

Any chance you could let us know the likely source of infection? The cases in the outbreak seem to be linked to intake of a specific brand of carrot juice.

From: [Ms WRAMC-Wash DC]
Sent: Tuesday, October 10, 2006 8:41 AM
To: [MAJ USACHPPM]
Subject: RE: RMES DAILY REPORT (06 October 2006)

Dr. [.] thank you for this.

[RN, MS, COHN-S, CIC]
Walter Reed Army Medical Center
Nurse Specialist
Infection Control and Epidemiology Service
6900 Georgia Ave N.W.
Washington, DC 20307

fax [na.amedd.army.mil]
Sorry I didn't get this to you on Friday.

The daily report is attached.
What he meant was that because there had been a CDC report on carrot-juice-linked bot, he discussed with the WRAMC epidemiologist so that any pertinent info could be gathered when that first case was still being assessed as to individual exposures (of that infant at that time). As it turned out, the Meade case of Oct was not linked to the other CDC-reported case(s).

-----Original Message-----
From: LTC KACC-Ft Meade
Sent: Wednesday, January 24, 2007 10:53 AM
To: MAJ USACHPPM-Wash DC; MAJ USACHPPM
Subject: RE: RMES DAILY REPORT (06 October 2006)

Could we get a copy of the info?

Thanks much,
LTC

-----Original Message-----
From: LTC KACC-Ft Meade
Sent: Monday, January 22, 2007 11:33 AM
To: MAJ USACHPPM-Wash DC; MAJ USACHPPM
Subject: RE: RMES DAILY REPORT (06 October 2006)

Yes

-----Original Message-----
From: MAJ USACHPPM-Wash DC
Sent: Monday, January 22, 2007 11:03 AM
To: MAJ USACHPPM-Wash DC; LTC KACC-Ft Meade; MAJ USACHPPM-Wash DC
Subject: FW: RMES DAILY REPORT (06 October 2006)

CHPPM was aware of the infant botulism case that was reported in RMES 5 OCT 2006.
Actually, there was an EPI-X report about botulism linked to carrot juice (6OCT2006) and I had contacted Ms. Reed at WRAMC) about this (see message below).

Steve

---

From: MAJ USACHPPM
Sent: Tuesday, October 10, 2006 2:16 PM
To: Ms WRAMC-Wash DC
Subject: RE: RMES DAILY REPORT (06 October 2006)

Any chance you could let us know the likely source of infection? The cases in the outbreak seem to be linked to intake of a specific brand of carrot juice.

---

From: Ms WRAMC-Wash DC
Sent: Tuesday, October 10, 2006 8:41 AM
To: MAJ USACHPPM
Subject: RE: RMES DAILY REPORT (06 October 2006)

Dr. thank you for this.

RN, MS, COHN-S, CIC
Walter Reed Army Medical Center
Nurse Specialist
Infection Control and Epidemiology Service
900 Georgia Ave N.W.
Washington, DC 20307

fax

ENA.amed.army.mil

---

From: MAJ USACHPPM
Sent: Tuesday, October 10, 2006 8:32 AM
To: Ms WRAMC-Wash DC
Subject: FW: RMES DAILY REPORT (06 October 2006)

Sorry I didn't get this to you on Friday.
From: AMSA MAIL
Sent: Friday, October 06, 2006 10:04 AM
Subject: RMES DAILY REPORT (06 October 2006)

The daily report is attached.
Ma'am,
Nothing so far. We are beginning our report but just received the lab confirmation to our second case today. It only confirms that so awaiting additional lab subtyping support. Have request in with the CDC but also have the labs in California willing to process everything for us if requested. Given C. Bot. is a Select Agent shipping and labs are very regulated. I have forwarded possible COAs to COL and will share as soon as he selects where we go next.
VR,
MAJ}

-----Original Message-----
From: LTC KACC-Ft Meade
Sent: Tuesday, January 30, 2007 1:49 PM
To: MAJ USACHPPM
Subject: AAR

MAJ

Have you written anything in the way of an AAR if so please share...
Thanks

LTC

Any word on the stool samples (isolates)??
I'll let Dr. Blythe comment on the false sense of direct and active CDC collaboration; but the _____ should know that we did not "take CDC off the case" per se. CDC neither invited itself to directly investigate nor showed any interest in conducting laboratory testing initially.

On the point about time it takes to get results, the _____ would need to be specific what test they're talking about. The initial toxin analysis, for example, was resulted way back. Culturing could take much less time as well, but is not as simple and reliable (actually, not as sensitive if stool is absent organisms or low inoculum / low count) as some would have the _____ believe. More importantly than any of this, however, is that it is of NO IMPACT OR IMPORTANCE WHATSOEVER to the clinical care of these babies or our ability to predict a third case. Neither is environmental testing. While they are not altogether irrelevant to the individual or family risks in that community, they are irrelevant from the standpoint of prediction or mitigation---which is all that any parent would have practical cause to publicize via the media. It is a non-issue, and I would challenge any world expert to tell the _____ otherwise with good evidence to back up their opinion.

Thanks for making the communication. I am happy to 'augment' as needed.

----Original Message----
From:  
Sent: Wednesday, January 31, 2007 3:47 PM  
To:  
Cc: 
Subject: FW: Ft Meade EPICON update

ALCON,
As per our conversation I did return _____ call to give him an update as to the results of the state testing and the fact that we were awaiting a response from CDC as to whether they are willing to perform the subtyping and from this we would determine our next COA.

He was comfortable with the response but had several concerns and questions:

-Was he not to contact the state since I was returning his call - I assured him that he was certainly able to contact the state and reminded him that Dr Russo had in fact given them her card so that they could contact her if they needed to do so. Reinforced that we were working together as a team i.e... EPICON Team, State and Fort Meade

-Why has it taken the state so long to get this answer? He had spoken with several microbiologist experts (one from Finland) and was told that results could have been received within 2-3 days, and it had taken until now to get lab results....

-Someone (not sure of name, he would call me back with that name) from the CDC had notified him that they (CDC) had been taken off of the case so why were we waiting to hear from the CDC on conducting further testing? Why couldn't the specimen be sent to another lab for testing (he stated he had researched and spoke to several different labs who could and were willing to do the testing)

-Why are we not testing the soil? He was told by the CDC that soil testing would be performed before they were taken off of the case.........
Good day COL

As we all discussed at last week's town hall meeting, below is a short weekly update of the EPICON team actions to date. I know we discussed you speaking personally with just the 3-5 families with the highest level of interest (which is certainly the most effective way to discuss concerns of those particular families). However, I strongly encourage that this information be widely publicized beyond just that group to preempt potential media focus (which is possible and potentially likely based on past community interest and history of actions). I'll be out of the office beginning this afternoon until Monday morning, but can still read email via my Blackberry. Please let me know what else I can provide to you.

The Maryland DHMH Laboratory has contacted the Center for Disease Control and Prevention (CDC in Atlanta, GA) to see if they are willing to do the subtyping and expect a CDC response by the end of the week.

The EPICON team is continuing discussions with the Maryland Department of Health and Mental Hygiene (DHMH), the CDC, the laboratory in California, Fort Meade medical authorities and other experts in this field to determine next steps in the investigation.

The Army's Medical Surveillance Activity (AMSA) is also working on a retrospective analysis of botulism cases for 1996-2005 for publication in their Medical Surveillance Monthly Report (MSMR) article. These reports are available online at:

http://amsa.army.mil/AMSA/amsa_home.htm
All,

We are having difficulty with our bridge but expect it to be solved shortly. I will reply to this all on this message with the details on the contact information. Thank you for your patience and we expect an answer soon.

MAJ

-----Original Message-----
From: MAJ USACHPPM
Sent: Thursday, February 01, 2007 6:26 PM
To: COL USACHPPM; Blythe, David (Maryland) (CDC dhmh.state.md.us)
Cc: Ms USACHPPM
Subject: RE: Ft Meade EPICON update

And I are both at MQT tomorrow morning so please schedule and reply to all with the information.

Thanks,

MAJ

-----Original Message-----
From: MAJ USACHPPM
Sent: Thursday, February 01, 2007 6:25 PM
To: COL USACHPPM; Blythe, David (Maryland) (CDC dhmh.state.md.us); hdruss11@aacounty.org
Cc: Ms USACHPPM; LTC KACC-Ft Meade; Ms KADIX; Mr LMI; Ms USACHPPM
Subject: FW: Ft Meade EPICON update

COL would like to schedule a teleconference tomorrow at 1 p.m. to discuss current status of the investigation and how to address the concerns voiced below.

COL priorities are:
1) Risk Communication with the families (addressing concerns, direct contact before the weekend, and determining the best individuals to contact the family)
2) Status of subtyping lab support from the CDC. Perhaps Dr. Blythe can provide current status on the request.
3) Next steps

We will schedule a telephone bridge and will forward that information to you some time tomorrow morning.

Thanks,

MAJ

Commercial
Blackberry
e-mail @us.army.mil

-----Original Message-----
I'll let Dr. Blythe comment on the false sense of direct and active CDC collaboration; but the should know that we did not "take CDC off the case" per se. CDC neither invited itself to directly investigate nor showed any interest in conducting laboratory testing initially.

On the point about time it takes to get results, the would need to be specific what test they're talking about. The initial toxin analysis, for example, was resulted way back. Culturing could take much less time as well, but is not as simple and reliable (actually, not as sensitive if stool is absent organisms or low inoculum / low count) as some would have the believe. More importantly than any of this, however, is that it is of NO IMPACT OR IMPORTANCE WHATSOEVER to the clinical care of these babies or our ability to predict a third case. Neither is environmental testing. While they are not altogether irrelevant to the individual or family risks in that community, they are irrelevant from the standpoint of prediction or mitigation—which is all that any parent would have practical cause to publicize via the media. It is a non-issue, and I would challenge any world expert to tell the otherwise with good evidence to back up their opinion.

Thanks for making the communication. I am happy to 'augment' as needed.

-----Original Message-----
From: LTC KACC-Ft Meade
Sent: Wednesday, January 31, 2007 3:47 PM
To: MAJ USACHPPM; hdruss11@aacounty.org
Cc: COL USACHPPM
Subject: RE: Ft Meade EPICON update

ALCON,

As per our conversation I did return call to give him an update as to the results of the state testing and the fact that we were awaiting a response from CDC as to whether they are willing to perform the subtyping and from this we would determine our next COA. He was comfortable with the response but had several concerns and questions:

-Was he not to contact the state since I was returning his call - I assured him that he was certainly able to contact the state and reminded him that Dr Russo had in fact given them her card so that they could contact her if they needed to do so. Reinforced that we were working together as a team i.e. EPICON Team, State and Fort Meade

-Why has it taken the state so long to get this answer? He had spoken with several microbiologist experts (one from Finland) and was told that results could have been received within 2-3 days, and it had taken until now to get lab results....

-Someone (not sure of name, he would call me back with that name) from the CDC had notified him that they (CDC) had been taken off of the case so why were we waiting to hear from the CDC on conducting further testing? Why couldn't the specimen be sent to another lab for testing (he stated he had researched and spoke to several different labs who could and were willing to do the testing)

-Why are we not testing the soil? He was told by the CDC that soil testing would be performed before they were taken off of the case.......

LTC

-----Original Message-----
From: Ms USACHPPM
Sent: Wednesday, January 31, 2007 1:13 PM
To: Bus.army.mil
Cc: us.army.mil; Ms USACHPPM;
As we all discussed at last week's town hall meeting, below is a short weekly update of the EPICON team actions to date. I know we discussed you speaking personally with just the 3-5 families with the highest level of interest (which is certainly the most effective way to discuss concerns of those particular families). However, I strongly encourage that this information be widely publicized beyond just that group to preempt potential media focus (which is possible and potentially likely based on past community interest and history of actions). I'll be out of the office beginning this afternoon until Monday morning, but can still read email via my Blackberry. Please let me know what else I can provide to you.

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

The EPICON team is continuing discussions with the Maryland Department of Health and Mental Hygiene (DHMH), the CDC, the laboratory in California, Fort Meade medical authorities and other experts in this field to determine next steps in the investigation.

The Army's Medical Surveillance Activity (AMSA) is also working on a retrospective analysis of botulism cases for 1996-2005 for publication in their Medical Surveillance Monthly Report (MSMR) article. These reports are available online at:

http://amsa.army.mil/AMSA/amsa_home.htm
I am willing to do by phone. Cannot come down to Meade today for WJLA interview. Key message is that any environmental sampling being discussed by the team is purely in the interest of advancing general knowledge about the ecology of C. botulinum in Maryland. There is NO environmental sampling that will guide an intervention or preventive measure to benefit the community or any individual family, and this can be said generally about NON-foodborne botulism.

-----Original Message-----
From: COL USACHPPM [mailto:sarmy.mil]
Sent: Friday, February 02, 2007 12:37 PM
To: LTC KACC-Ft Meade; MAJ USACHPPM-Wash DC; Mr USACHPPM; Ms USACHPPM; CIV USA
Cc: COL MIL USA;
Subject: RE: Ft Meade EPICON update

I would also like them to contact Washington Post Reporter Steve Vogel 410-772-2308 email: vogels@washpost.com to correct the quote that went in the paper saying that environmental soil testing was being done.

Now we have another query. This time from TV station WJLA (ABC) Channel 7 in Washington. They are headed to our gate and want someone to go live and give them an update on camera.

-----Original Message-----
From: Ms USACHPPM [mailto:sarmy.mil]
Sent: Friday, February 02, 2007 11:53 AM
To: LTC KACC-Ft Meade; MAJ USACHPPM-Wash DC; Mr USACHPPM; Ms USACHPPM; CIV USA
Cc: COL MIL USA;
Subject: RE: Ft Meade EPICON update

Most of the principals in this investigation are meeting telephonically in about an hour. After that meeting I will contact this reporter—we will likely suggest, given that they are willing, that the reporter also speak to the MD public health expert (if he has not done so already), a CDC expert and/or the national expert in California who has been consulting on these cases with us. We want to strongly emphasize the message that this investigation was conducted in accordance with national practice standards and in consultation with nationally recognized experts.
USACHPPM: Saving Lives & Resources--Prevention is the Key.

-----Original Message-----
From: CIV USA [mailto: us.army.mil]
Sent: Friday, February 02, 2007 11:33 AM
To: Ms USACHPPM
Cc: LTC KACC-Ft Meade; MAJ USACHPPM-Wash DC; Mr USACHPPM; Ms USACHPPM; COL MIL USA; CIV USA; Attns: OSD.MIL
Subject: RE: Ft Meade EPICON update

Ms:

Per our conversation, here is the media request that I got from the Baltimore Sun:

Reporter: Brad Olson
Baltimore Sun
Phone: (410) 332-6100
E-mail: bradley.olson@baltsun.com

Request:

Mrs. called the Baltimore Sun claiming that the installation is not doing enough to find out what caused the isolated cases of infant botulism at FGGM. Is the post going to be testing the environment, specifically the soil? If not, why was that decision made? Mr. Olson also had questions about how the investigation is going. I sent him a copy of the most up-to-date news release, which is attached in this e-mail. The deadline for this story is 4 p.m. on 2 Feb.

We are requesting that USACHPPM provide a subject matter expert who can comment on the investigation to the reporter and explain why the installation is not doing environmental testing.

We also wanted to inform you that in our office was misquoted in the Washington Post yesterday. was trying to explain that botulism is everywhere in the soil.

Then he said in an answer that we the installation would do whatever needed to be done to investigate the cause.

The reporter made the lead connection incorrectly that we would be doing environmental testing and were just waiting for the results. We will do a retraction with the Post.

Call me if you have a question. My staff is doing an excellent job trying to keep this from making another story. But we may need your help.

-----Original Message-----
From: Ms USACHPPM [mailto: us.army.mil]
Sent: Wednesday, January 31, 2007 1:13 PM
To: COL MIL USA
Cc: LTC KACC-Ft Meade; MAJ USACHPPM-Wash DC; Mr USACHPPM; Ms USACHPPM; COL USACHPPM; MAJ USACHPPM
Subject: Ft Meade EPICON update

Importance: High

Good day COL

As we all discussed at last week's town hall meeting, below is a short weekly update of the EPICON team actions to date. I know we discussed you speaking personally with just
the 3-5 families with the highest level of interest (which is certainly the most effective way to discuss concerns of those particular families). However, I strongly encourage that this information be widely publicized beyond just that group to preempt potential media focus (which is possible and potentially likely based on past community interest and history of actions). I'll be out of the office beginning this afternoon until Monday morning, but can still read email via my Blackberry. Please let me know what else I can provide to you.

The EPICON team is continuing discussions with the Maryland Department of Health and Mental Hygiene (DHMH), the CDC, the laboratory in California, Fort Meade medical authorities and other experts in this field to determine next steps in the investigation.

The Army's Medical Surveillance Activity (AMSA) is also working on a retrospective analysis of botulism cases for 1996-2005 for publication in their Medical Surveillance Monthly Report (MSMR) article. These reports are available online at:

http://amsa.army.mil/AMSA/amsa_home.htm
Vexing infant botulism provokes threat of suit By Bradley Olson Sun Reporter Originally published February 3, 2007 It's one of the rarest infectious diseases, affecting an average of only 100 babies a year in the United States, but infant botulism infected two babies living on the same street at Fort Meade in recent months - puzzling researchers.

Clusters of the illness are not unprecedented, experts say, and the ubiquity of the bacterial spores that cause infant botulism makes isolating one source almost impossible.

That is especially true in this case, where the military base also happens to be an Environmental Protection Agency Superfund site.

Both children survived the illness, but one family confirmed yesterday that it has hired a lawyer who will likely sue the Army, claiming that military officials have been negligent in seeking the cause of the outbreak. The parents of the other child say they do not blame the military and do not plan to join a lawsuit.

On Thursday, base officials confirmed that both cases, the first diagnosed in October and the second in December, came from the same strain of Clostridium botulinum bacteria.

"I would be hesitant to reassure everyone by saying this is a freak thing and this is over," said LTC KACC-Ft Meade, a physician and director of epidemiology and disease surveillance at the U.S. Army Center for Health Promotion and Preventive Medicine in Aberdeen. "Maybe there will be a third case and a fourth case. We can't say there won't be another one."
Army doctors involved in the investigation say they have followed medical protocol, conducting an investigation with help from experts at the Centers for Disease Control and Prevention in Atlanta, Walter Reed Army Medical Center, Maryland Public Health Administration and Anne Arundel County Department of Public Health.

Infant botulism develops in newborns - usually those between 3 weeks and 6 months of age - when they ingest bacteria that produce a toxin inside the large intestine. The toxin attaches to nerves in the body and paralyzed them. Although the condition is treatable and most babies eventually recover, it causes several frightening symptoms, including paralysis and respiratory problems.

Such was the case with [name], now 10 months old, whose family lives on the Anne Arundel County military base.

On Oct. 2, [name] noticed that the baby became fussy and was not feeding well. Thinking he was teething, she put him to bed. The next morning, he made an odd, grunting sound, and when she picked him up, his head flopped.

She took him to Bethesda Naval Hospital, where doctors, thinking [name] was dehydrated, gave him fluids intravenously. When his eyes began to gloss over, [name] recalled, [name] was rushed to Walter Reed Army Hospital, where a young physician noticed symptoms of infant botulism she had seen in a case during her residency.

She went home to research the condition and in the meantime, doctors tested him for meningitis. When that came back negative, they sent him to get a CT scan to rule out a neurological disorder. During the scan, [name] vital signs plunged, and a gaggle of doctors and nurses rushed into the room, reviving him and putting him on oxygen.

Once infant botulism was definitively diagnosed, they treated him with a drug called "Baby-BIG," which slightly relieves symptoms and doesn't allow the toxin to paralyze any other nerves.

"My son was so sick, he couldn't even open his eyes," [name] said. "He had over 50 needle marks in him because his veins kept busting. To watch that, it was absolutely the most terrifying, horrible experience I've had to go through as a mother, and I've got four kids. I don't want any other families to have to go through that."

[name] has been fine since his recovery, but his mother became angry when, on Jan. 9, a Walter Reed doctor called her to say another child on her street had been diagnosed with infant botulism. At that point, she became convinced that the military was not committed to finding a cause.

Michael Archuleta, a Texas-based lawyer who is also a physician and is representing the [name] family, said he believes a pile of debris, about a block from the street where both families live, is the source of the toxin, and will file a negligence claim with the Army.

"We have two cases of infant botulism occurring in the same time frame, very close to one another, that is epidemiologically very improbable unless it came from an external or environmental source," he said.

A base spokeswoman confirmed that there was a debris pile and said it was removed and the site was covered with hay on Jan. 7.

The mother of the second child, who asked not to be identified when contacted by The Sun, said that her daughter is no longer sick and that she does not wish to join any potential lawsuit.

In interviews with both families, investigators have determined that the source was not food such as honey, which has proved to be a source of infant botulism.

Fort Meade and Army officials, as well as several leading independent epidemiologists and infectious disease experts, insist that testing soil in infant botulism cases would be fruitless because the bacterial spores that cause it are common and naturally occurring.

Dr. John Bartlett, a professor of medicine at the Johns Hopkins University who specializes in infectious diseases but is not involved in these cases, said that testing soil is "pointless."
"That kind of activity just doesn't pay off," he said. "You don't look for it in dirt, and even looking for it in a food source is going to be a long shot. I mean, two cases in the same geographic area are unusual, but I wouldn't know quite how to go about finding a source. Usually, we don't try because we don't find it."

Archuleta and the believe that DNA testing could establish an exact match between the two cases and the dirt pile or other soils, and they intend to use that evidence in any litigation.

The toxin is too ubiquitous, Petruccelli, the Army epidemiologist, said, and the DNA-testing process too inconclusive. That Fort Meade was built on a landfill and is currently monitored by the Environmental Protection Agency would not have any impact, because those sites focus on chemical agents and other toxic substances, not naturally occurring substances, he said.

Dr. James Campbell, a pediatric infectious disease specialist at the University of Maryland School of Medicine, who is not involved in the case, said unlike food-borne botulism, which generally infects adults and which investigators almost always link to a food source, there is often no identified source for the infant variety.
Ma'am,
This was last Friday's meeting.

Sent from my BlackBerry Wireless Handheld

-----Original Message-----
From: LTC KACC-Ft Meade
Sent: Monday, February 05, 2007 1:19 PM
To: MAJ USACHPPM
Subject: Re: Ft Meade EPICON update

Please provide notes I am in an OIP and will try and dial up but may not be able to.....

LTC

-----Original Message-----
From: MAJ USACHPPM
Sent: Friday, February 02, 2007 12:04 PM
To: LTC KACC-Ft Meade; MAJ USACHPPM; COL USACHPPM; 'hdruss11@aaccount.org' <'hdruss11@aaccount.org'>; Ms USACHPPM; 'KiehlbauchJ@dnhs.state.md.us'; 'Blythe, David (Maryland) (CDC dhmh.state.md.us)'; 'dlythe@dhmh.state.md.us'; Ms USACHPPM; 'DHS-DCDC-IBTPP' <dkron@dhs.ca.gov>; C Ms USACHPPM
CC: Ms USACHPPM; Mr LMI; Ms USACHPPM
Subject: RE: Ft Meade EPICON update

All,

Time of Conference: 1200 - 1400 CST / 1300 - 1500 EST
AUDIO PORTS RESERVED: 5

AUDIO BRIDGE ACCESS CODE: [Valid for 02 Feb 07 only]

DIAL IN INSTRUCTIONS

To access USAMITC VNC Audio Bridge, dial 210-250-7000 or DSN 421-3272.

When prompted by the Audio Bridge Operator, please enter your CONFERENCE ACCESS CODE.

AVAILABLE FEATURES DURING CONFERENCE

To Mute/Un-Mute out of conference, please press *1
For Operator assistance any time during the conference, press *0
Special Note: Do not use "HOLD" button at any time!
Please keep us informed of changes and/or cancellations by emailing us @ vtc.usamitc@amedd.army.mil

Thank you,

Vr

Mr.

Federal Resources Corp [Contractor]
USAMITC Video Network Center (VNC)

VTC Scheduling Agent

Telephone: DSN (Option 2)
Fax: vtc.usamitc@amedd.army.mil

https://vtc.medcom.amedd.army.mil

EMAILED 2/2/2007 10:46:39 AM

-----Original Message-----
From: MAJ USACHPPM
Sent: Friday, February 02, 2007 11:55 AM
To: COL USACHPPM; 'hdruss11@acoun...'; LTC KACC-Ft Meade; Ms USACHPPM; Blythe...DCDC-IBTPP); Ms USACHPPM; Ms USACHPPM; Ms KADIX; Mr LMI;
Cc: Ms USACHPPM
Subject: RE: Ft Meade EPICON update

All,

We are having difficulty with our bridge but expect it to be solved shortly. Will reply to this all on this message with the details on the contact information. Thank you for your patience and we expect an answer soon.

MAJ

-----Original Message-----
From: MAJ USACHPPM
Sent: Thursday, February 01, 2007 6:26 PM
To: COL USACHPPM; Blythe...DCDC-IBTPP); Ms USACHPPM; 'hdruss11@acoun...'; LTC KACC-Ft Meade; Ms USACHPPM;
Cc: Ms USACHPPM; Ms KADIX; Mr LMI;
Subject: FW: Ft Meade EPICON update

All,

COL P and I are both at MQT tomorrow morning so please schedule and reply to all with the information.
Thanks,

MAJ

-----Original Message-----
From: MAJ USACHPPM
Sent: Thursday, February 01, 2007 6:25 PM
To: COL USACHPPM; Blythe...DCDC-IBTPP); 'hdruss11@acoun...'; LTC KACC-Ft Meade; Ms USACHPPM;
Cc: Mr LMI; Ms USACHPPM
Subject: RE: Ft Meade EPICON update

All,

COL would like to schedule a teleconference tomorrow at 1 p.m. to discuss current status of the investigation and how to address the concerns voiced below.

COL priorities are:
1) Risk Communication with the families (addressing concerns, direct contact before the weekend, and determining the best individuals to contact the family)
2) Status of subtyping lab support from the CDC. Perhaps Dr. Blythe can provide current status on the request.
3) Next steps

We will schedule a telephone bridge and will forward that information to you some time tomorrow morning.
I'll let Dr. Blythe comment on the false sense of direct and active CDC collaboration; but the should know that we did not "take CDC off the case" per se. CDC neither invited itself to directly investigate nor showed any interest in conducting laboratory testing initially.

On the point about time it takes to get results, the would need to be specific what test they're talking about. The initial toxin analysis, for example, was resulted way back. Culturing could take much less time as well, but is not as simple and reliable (actually, not as sensitive if stool is absent organisms or low inoculum / low count) as some would have the believe. More importantly than any of this, however, is that it is of NO IMPACT OR IMPORTANCE WHATSOEVER to the clinical care of these babies or our ability to predict a third case. Neither is environmental testing. While they are not altogether irrelevant to the individual or family risks in that community, they are irrelevant from the standpoint of prediction or mitigation—which is all that any parent would have practical cause to publicize via the media. It is a non-issue, and I would challenge any world expert to tell the otherwise with good evidence to back up their opinion.

Thanks for making the communication. I am happy to 'augment' as needed.

-----Original Message-----

From: LTC KACC-Ft Meade
Sent: Wednesday, January 31, 2007 3:47 PM
To: MAJ USACHPPM; hdruss11@aacounty.org
Cc: COL USACHPPM
Subject: FW: Ft Meade EPICON update

ALCON,
As per our conversation I did return call to give him an update as to the results of the state testing and the fact that we were awaiting a response from CDC as to whether they are willing to perform the subtyping and from this we would determine our next COA. He was comfortable with the response but had several concerns and questions:

-Was he not to contact the state since I was returning his call - I assured him that he was certainly able to contact the state and reminded him that Dr Russo had in fact given them her card so that they could contact her if they needed to do so. Reinforced that we were working together as a team i.e.. EPICON Team, State and Fort Meade

-Why has it taken the state so long to get this answer? He had spoken with several microbiologist experts (one from Finland) and was told that results could have been received within 2-3 days, and it had taken until now to get lab results....

-Someone (not sure of name, he would call me back with that name) from the CDC had notified him that they (CDC) had been taken off of the case so why were we waiting to hear from the CDC on conducting further testing? Why couldn't the specimen be sent to another lab for testing (he stated he had researched and spoke to several different labs who could and were willing to do the testing)
-Why are we not testing the soil? He was told by the CDC that soil testing would be performed before they were taken off of the case........

LTC

-----Original Message-----
From: [Redacted]
Sent: Wednesday, January 31, 2007 1:13 PM
To: [Redacted]
Cc: [Redacted]
Subject: Ft Meade EPICON update

Good day COL [Redacted]

As we all discussed at last week’s town hall meeting, below is a short weekly update of the EPICON team actions to date. I know we discussed you speaking personally with just the 3-5 families with the highest level of interest (which is certainly the most effective way to discuss concerns of those particular families). However, I strongly encourage that this information be widely publicized beyond just that group to preempt potential media focus (which is possible and potentially likely based on past community interest and history of actions). I’ll be out of the office beginning this afternoon until Monday morning, but can still read email via my Blackberry. Please let me know what else I can provide to you.

++++++++++++++++++++++++++++++++++++++++++++++++++++

The EPICON team is continuing discussions with the Maryland Department of Health and Mental Hygiene (DHMH), the CDC, the laboratory in California, Fort Meade medical authorities and other experts in this field to determine next steps in the investigation.

The Army’s Medical Surveillance Activity (AMSA) is also working on a retrospective analysis of botulism cases for 1996-2005 for publication in their Medical Surveillance Monthly Report (MSMR) article. These reports are available online at:

http://amsa.army.mil/AMSA/amsa_home.htm
Sirs,

V/R,

U.S. Army Center for Health Promotion & Preventive Medicine
(410) Army.mil

USACHPPM: Saving Lives & Resources--Prevention is the Key.
Good Afternoon,

I understood there is some question about the definition of a Superfund Site and the relationship of the sites on Ft Meade to the 2 infant botulism cases. BLUF: there is no relationship.

The parents of the infant who first contracted infant botulism on Ft Meade (family) back in October, feel very strongly that the installation is covering up the cause of the infant botulism and have involved as many media outlets as possible to get their story out—that the soil on the installation is making children sick. The most recent allegation by the family involves an alleged connection between the "Superfund Sites" here on Ft Meade and the source of the botulinum bacteria which made the two infants ill.

A "Superfund Site" is a phrase coined from the late '70s early '80's which describes locations throughout the country where hazardous materials and wastes were inappropriately buried and where federal funds were set aside and directed (referred to as the Super fund) to clean up these areas...Remember "Love Canal" in 1979? Love Canal was really what prompted the federal government to get involved in the clean-up of extremely hazardous areas (mostly former waste dumps/landfills) and it became one of the first Superfund Sites.

Since there were so many of these hazardous waste disposal sites in the U.S, the federal government (EPA) had to rank-order the sites from most to least contaminated/hazardous. This rank-order listing of these superfund sites is referred to as the National Priorities List. In the early 1990s (1994 I believe) EPA determined that Ft Meade had a couple of locations where hazardous wastes generated decades ago from routine landfill operations, laundry and dry cleaning operations, maintenance activities and DRM, were disposed of inappropriately. These sites are now listed on the National Priorities List and are eligible for federal funds ("superfunds"). These sites correspond to locations away from the main cantonment area—not near housing areas. The relative risk of human contact with any contaminant associated with these sites is very low. Clean up of these areas is ongoing and will take years to complete. There is environmental monitoring performed on/around these sites to ensure contaminants are not adversely affecting the environment and/or human health.

I hope this provides you an explanation of the superfund sites on Ft Meade and the relationship (or lack thereof) to infant botulism.

COL

"Army Strong--One Team"

COL, MS
Commanding
Ft Meade MEDDAC and
Kimbrugh Ambulatory Care Center
(301) DSN 622-

----Original Message-----
From: Mr KACC-Ft Meade
Sent: Monday, February 05, 2007 5:13 PM
Ma'am.. NARMC Ops called for the COS they wanted to know what the term "Superfund Site" in Friday's Botulism update was referring to. I told him that we would send an answer tomorrow, because you were out at the moment..
No. DoD has no oversight on dependent mortalities so there are no data sources I can access.

MAJ said you could try contacting Dr. Blythe (410-767-6677) or Dr. Russo (410-222-4114). They may be able to access info for Ann Arundel, but I'm not sure they would be able to determine anything specific to Ft. Meade.

Good luck.

-----Original Message-----
From: LTC KACC-Ft Meade
Sent: Wednesday, February 07, 2007 4:10 PM
To: Ms USACHPPM
Subject: RE: RFI : Birth cohort at fort meade

Do you have numbers just on infant and children mortalities on Fort Meade, not necessarily SIDS or IB related.

Thanks much

-----Original Message-----
From: Ms USACHPPM
Sent: Wednesday, February 07, 2007 3:59 PM
To: LTC KACC-Ft Meade
Cc: MAJ USACHPPM; Mr LMI
Subject: RE: RFI : Birth cohort at fort meade

I had researched this early in the investigation because of the possible association between infant botulism and SIDS and found that the Armed Forces Institute of Pathology (AFIP) has no visibility of CONUS dependent fatalities due to G-1 casualty operations policy.

The pathologist at AFIP recommended that I call the Baltimore Medical Examiner's office.

I did this and found that there had been no recent deaths (CY 2003 - 2006) due to infant botulism and only 15-22 per year due to SIDS in Baltimore city (about 50 SIDS per yr in the state of Maryland). I did not request information regarding children. Of note, the examiner's office does not test SIDS cases for other probable causes such as infant botulism.

You can get information from the 2005 vital statistics annual report from the following website. http://www.vsa.state.md.us/doc/05annual.pdf

It breaks the data down by county so you could get the number of infant deaths for Ann Arundel (see page 198 for SIDS cases by county). The report also contains info regarding childhood deaths.

These deaths would include military dependents, but they do not have information regarding what proportion are among military dependents.
Ms.

Would you be able to give me the number of infant and children deaths on Fort Meade 2005 and 2006?

Thanks much

LTC

-----Original Message-----
From: [Redacted] Ms USACHPPM
Sent: Tuesday, January 16, 2007 3:36 PM
To: [Redacted] LTC KACC-Ft Meade; [Redacted] MAJ USACHPPM-Wash DC;
Ms KACC-Ft Meade
Subject: RE: RFI : Birth cohort at fort meade

Hello,

I was on the telecon with you and others from CDC last week - we have not met in person yet.

We don't have a definite plan yet in terms of which non-cases to interview or a final questionnaire, but wanted to get a comparable group so I searched for any infants residing within the Ft. Meade zip who were born in 2006. I have identified 214.

I'm not sure if we will take a random sample of this group or attempt to identify another neighborhood or neighborhoods within Ft. Meade to target based on the addresses we get back in our search. Basically it's still debatable.

The tentative plan is to create a more generic survey addressing potential environmental exposures so that we can generate hypothesis given that further questioning of the case parents did not yield much. I'm not sure how long it may take to finalize this survey. This will probably be discussed in more detail on the telecon this afternoon.

Are you going to be at the townhall this evening? If so, I could bring you a file with SSNs. Otherwise, I can figure out a secure way to send it to you electronically.

-----Original Message-----
From: [Redacted] MAJ USACHPPM-Wash DC
Sent: Tuesday, January 16, 2007 2:59 PM
To: [Redacted] Ms USACHPPM;
Ms KACC-Ft Meade
Subject: RE: RFI : Birth cohort at fort meade

Hello,

I'm LTC Preventive Medicine at Kimbrough I should be able to pull the info as long as you have the SSN of the sponsors.....did we meet on last week? What kind of comparison are we doing w/ cases vs non-cases??

Thanks

LTC

-----Original Message-----
From: [Redacted] MAJ USACHPPM-Wash DC
Sent: Tuesday, January 16, 2007 2:59 PM
To: [Redacted] Ms USACHPPM; [Redacted] Ms KACC-Ft Meade;
LTC KACC-Ft Meade
Subject: RE: RFI : Birth cohort at fort meade

DMSS does not have this field. The MTF (Kimbrough) should have this field.

Ms. [Redacted] is working on the team that is investigating Botulism cases on Ft. Meade. We
need to compare some things between infants that were cases and those that are not cases. We need this information for public health purposes. Can you assist her in this?

Thanks

MAJ

-----Original Message-----
From: [redacted]  
Sent: Tuesday, January 16, 2007 1:10 PM  
To: [redacted]  
Subject: RFI : Birth cohort at fort meade

I was asked to pull info to identify a 2006 birth cohort at Ft. Meade. I was able to pull identifying information for newbornes in the Ft. Meade zip (20755), which was the same zip for the 2 cases. However, beneficiary residence or address is not available in M2 (DEERS) so this won't be helpful should we need to target a particular subset to survey.

If I were to furnish you with the SSNs for this group would AMSA be able to pull this info?
Dear [Name],

As promised, here is what will likely be the last weekly update re the EPICON team. I've tried to draft it in a way that your public affairs staff could use in updating the residents of Fort Meade:

[We] Epidemiologists from the Army Center for Health Promotion and Preventive Medicine advised the Preventive Medicine Staff of the Walter Reed Health Care System and the Kimbrough Ambulatory Care Center to adopt strategies to ensure increased vigilance in diagnosing infant botulism. Two infants residing on Fort Meade were diagnosed and treated for the disease at Walter Reed Army Medical Center. The first case of infant botulism was diagnosed in October 2006 and the second in December 2006. Both children, who live on Oliver Court, have recovered without complications.

The Epidemiological Consultation team has completed its assessment and is planning to deliver a written report for the Fort Meade garrison commander in about three weeks. The team will work closely with the Army Medical Surveillance Activity to monitor incidence of cases within DOD.

[Name], your staff may wish to approach the Maryland Department of Health and Mental Hygiene to see if they would be willing to include this information about their efforts—it should be attributed to DHMH rather than CHPPM:

"The Maryland Department of Health and Mental Hygiene and the U.S. Centers for Disease Control and Prevention's laboratory specializing in botulism are considering special testing to determine specific bacterial subtypes using samples from the two infants. While subtyping would not help to predict or prevent future cases, it could contribute to a general scientific understanding of the bacteria."

Since the assessment itself is complete and we're underway with the report itself, we do not plan to continue sending weekly updates. However, if there's anything else we can provide, please don't hesitate to contact me/us.

[Signature]
Senior Health Risk Communication Specialist
Ph: [Phone Number]
Sir,

I have not completed the AAR because the EpiCon team has not closed out the investigation. I can draft the AAR up to the most current events.

-----Original Message-----
From: 1LT KACC-Ft Meade
Sent: Friday, February 09, 2007 9:15 AM
To: LTC KACC-Ft Meade
Cc: LTC KACC-Ft Meade
Subject: Botulism AAR

1LT KACC-Ft Meade

What is the status of the Botulism AAR?

LHS
DCA

-----Original Message-----
From: Mr KACC-Ft Meade
Sent: Thursday, February 08, 2007 5:21 PM
To: Mr KACC-Ft Meade
Cc: LTC KACC-Ft Meade
Subject: RE: OIP

I spoke with Mr. and he seem to be satisfied with the information we provided to the OIP Team earlier, and with the answers I provided him today... If he has any other questions he will give me a call.. Thanks!!

Army Strong... One Team!!!
FW: Ft Meade EPICON update (UNCLASSIFIED)

Fyi,

I kinda volunteered to put together a message to the providers. I'll send it to interested parties when I have an 80% solution.

MD MPH
LTC MC
Walter Reed Army Medical Center
(office)
(Blackberry)

-----Original Message-----
From: COL USACHPPM
Sent: Friday, February 09, 2007 2:06 PM
To: Cates, Michael B BG USACHPPM; Mr USACHPPM; Ms USACHPPM; LTC WRAMC-Wash DC; LTC CHPPM North-Ft Meade
Cc: LTC WRAMC-Wash DC; LTC USACHPPM
Subject: Ft Meade EPICON update (UNCLASSIFIED)

Sir,
You probably saw this. Am sharing with others as appropriate, since TSG should have seen by now. Mainly a way to summarize.

VR
INFORMATION PAPER

DASG-PPM-NC
8 February 2007

SUBJECT: Infant botulism cases at Ft. Meade

1. Purpose. To provide information on infant botulism at Ft. Meade, MD

2. Facts.

a. Two infants living on the same street approximately 400 feet apart, at Ft. Meade contracted infant botulism in Oct 06 and Jan 07, respectively. Subsequent investigation did not reveal a common source. A local newspaper reported that one of the families plans to sue the Army, claiming that they were negligent in seeking the cause of the two cases. They reportedly believe that dirt from a construction site one block away from the street where both families live is the source of the spores, that soil testing should have been undertaken, and that the Army is intentionally avoiding such sampling because Ft. Meade is a Superfund site. The fact that Clostridium spores are everywhere in soil and dust, makes isolating any one putative source impossible, and experts agree that testing the soil in infant botulism cases is fruitless.

b. Infant botulism, also known as intestinal botulism, is a rare but serious paralytic illness caused by a nerve toxin produced by a spore-forming bacterium, Clostridium botulinum. Clostridium spores are ubiquitous worldwide, in soil and dust; most cases of intestinal botulism are likely to derive from ingestion of spores from common, airborne dust. After spores are ingested, they germinate in the intestines and produce bacteria which manufacture and release botulinum toxin. Intestinal botulism typically affects children younger than a year and rarely affects adults, because most adults and older children have natural defenses that prevent growth of the bacteria and elaboration of toxin. Other than avoiding feeding infants honey and corn syrup which are well known to present a risk of having spores, there is no known way to prevent the disease. Each year in the US, two cases are reported for about every 100,000 live births; this translates to about 5 cases per month throughout the country.

c. The MEDDAC Commander at Ft. Meade requested assistance to investigate, and USACHPPM formed an Epidemiologic Consultation (EPICON) Team, which also consulted subject matter experts from the Centers for Disease Control and Prevention (CDC), the California Department of Health Services (CDHS), the Maryland Department of Health and Mental Hygiene, and the Anne Arundel County Health Departments. CDHS was consulted because of their nationally renowned expertise in infant botulism. The Team interviewed the affected infants’ parents using the CDC’s infant botulism questionnaire, modified for military beneficiaries. Stool specimens had been collected by local physicians and tested by the Maryland Department of Health and Mental Hygiene, and offered to the CDC for sub-typing. Investigators and Ft. Meade officials conducted town hall meetings to address community concerns and provided information sheets to local residents. Investigators also provided press releases and conducted media interviews.
Interviews with each family revealed no common exposures that may have been a likely source of the outbreak, and no possible food sources. The risk communication effort was intensified due to the high level of community concern regarding transmission and environmental factors discussed in the interviews, such as nearby construction. This quelled the fears of most Ft. Meade residents; however, some still wonder why environmental sampling and testing is not being done.

e. The Maryland Department of Health and Mental Hygiene is requesting determination of specific bacterial sub-types from the CDC. The CDHS is considering a research project that would attempt to isolate \textit{C. botulinum} from soil or house dust samples that could be obtained from Ft. Meade. However, any results that may derive from the laboratory work of either the CDC or the CDHS in regard to this two-case cluster would contribute nothing toward identifying the source, predicting the emergence of additional cases, or mitigating future infections. In fact there are no known, specific, public health interventions to prevent non-foodborne, infant (intestinal) botulism because \textit{C. botulinum}—when isolated from environmental samples—are traceable to multiple locations and not limited to any narrowly identified source. Instead, any Ft. Meade-associated research activities would occur strictly to advance the body of scientific knowledge about these bacteria and their ecology in Maryland.

f. EPICON Team recommendations include: (1) Military Health System providers throughout the National Capital Region (NCR) be made aware of the two cases, to reinforce the need to consider botulism in the differential when evaluating infants with paralytic signs or significant constipation; (2) NCR clinic staff receive a message reinforcing the need to communicate reportable medical events to both civilian and military public health authorities; (3) NCR beneficiaries who are parents of newborns and infants be informed about intestinal botulism as part of child health education; (4) Army epidemiologists enhance surveillance for botulism cases.
The attached document makes reference to a questionnaire that was modified for Military beneficiaries. We need to have that available. In fact one of the things I would like to do when we do get that disease surveillance nurse is to develop Standardized "tool kits" for some of the various investigations we can anticipate, coordinate it all with CHPPM etc. etc.

-----Original Message-----
From: LTC WRAMC-Wash DC
Sent: Friday, February 09, 2007 2:14 PM
To: LTC KACC-Ft Meade; Mr WRAMC-Wash DC
Cc: COL
Subject: FW: Ft Meade EPICON update (UNCLASSIFIED)

Fyi,
I kinda volunteered to put together a message to the providers. I'll send it to interested parties when I have an 80% solution.

LTC MC
MD MPH
Chief, Preventive Medicine
Walter Reed Army Medical Center

-----Original Message-----
From: COL USACHPPM
Sent: Friday, February 09, 2007 2:06 PM
To: Cates, Michael B BG USACHPPM; Resta, John J Mr USACHPPM; Mr USACHPPM; COL USACHPPM; COL USACHPPM; C MS USACHPPM; LTC WRAMC-Wash DC; LTC CHPPM North-Ft Meade
Cc: LTC WRAIR-Wash DC; MAJ USACHPPM-Wash DC; LTC USACHPPM
Subject: Ft Meade EPICON update (UNCLASSIFIED)

Sir,
You probably saw this. Am sharing with others as appropriate, since TSG should have seen by now. Mainly a way to summarize.

VR
Good day ma'am:

Could you please send to me the Word version of the final fact sheet you all developed on 10 Jan? We'd like to include all the risk comm products in the report, but for some reason, Dr. Ambrose said that when the PDF versions are included, the format changes. Thank you for your help.

-----Original Message-----
From: Mr. LMI
Sent: Friday, February 09, 2007 4:04 PM
To: Ms USACHPPM
Cc: MS USACHPPM; MAJ USACHPPM; Ms USACHPPM
Subject: RE: Edits to epicon report

I have attached your RC Products as an attachment to the report, but it changes the format. Can you send me the products in the Microsoft word format?

Thanks

M.P.H., C.H.E.S
EPIDEMIOLOGICAL CONSULTATION TEAM AND ITS MISSION
AT FORT MEADE
16 Jan 07

BACKGROUND:
In response to lingering concerns about the two cases of infant botulism at Fort Meade, an epidemiological consultation (EPICON) team was requested to assist the medical community here at Fort Meade in its investigation. The EPICON team arrived at Fort Meade on Friday January 12th to begin its mission to investigate the occurrence of these cases. This fact sheet provides some background information about the team and its mission.

What is an EPICON team?
Epidemiology is the science devoted to investigating how population factors and the environment influence the occurrence of diseases or injuries. The team then applies this science to find possible causes, risk factors and opportunities for prevention.

Who is on the EPICON team? Where are they from? What are their specialties?
The EPICON team members are from the U.S. Army Center for Health Promotion and Preventive Medicine, part of the Army's Medical Command, who specializes in preventive medicine, environmental health, epidemiology, and communication about health matters when public concerns are high. In conducting this study the team is collaborating with a physician-epidemiologist from Anne Arundel County's public health department, the Kimbrough preventive medicine staff, the Centers for Disease Control and Prevention (CDC) and the California state health department.

Why is the EPICON team here?
The team was called by the Kimbrough Ambulatory Acute Care Hospital and Garrison Commanders because they believed someone from outside Fort Meade was needed to review the situation and provide advice while allowing Kimbrough to continue their important clinical and preventive medicine mission without disruption.

What methods is the team using to try and find answers?
The team is working to determine if there is any connection between the two cases of infant botulism. The team has interviewed the affected families to identify products used, places visited, possible common exposure, etc. They are reviewing clinical test results on the affected children during their illness, and will review more detailed analysis currently being done at a Maryland state laboratory which will identify the specific subtype of botulism bacteria. Team members are also looking at disease surveillance reports and other data to see if the Fort Meade community or Anne Arundel County has experienced similar cases.

Will environmental sampling be done?
It's certainly understandable why finding the cause is so important to families with young children. Focused environmental sampling in specific areas may be conducted for purely
scientific reasons, such as to determine where the bacteria might be present. But random sampling throughout a wide area is unlikely to provide a definite link to the two Fort Meade cases or help direct future preventive measures, or provide a definite link to one or a few specific areas of contaminated objects or soil. This is because the botulism-causing bacteria are widely distributed in many environments around the world.

**How long will the team’s investigation take?**
The results of the subtyping of the bacteria from the affected infants are expected to be completed on or about January 20th. This information is critical in answering the question, "Are the two cases connected?" However, the team’s mission will not end there. The EPICON team will continue to conduct a thorough review of the local surveillance data and existing scientific literature; and continue to collaborate with the Fort Meade medical authorities, the Fort Meade garrison, as well as with Anne Arundel County and CDC partners before finalizing its report. The team anticipates delivering a report to the Garrison Commander by the end of February.

**Where can I learn more about infant botulism?**

National Institutes of Health:
Infant Botulism:
Botulism:

Mayo Clinic Infant Botulism and Honey:
http://www.mayoclinic.com/health/infant-botulism/HQ00854

California Department of Health Services:
http://www.infantbotulism.org/
Respectfully submitted. Hard copy will be mailed to COL KACC-Ft Meade on Monday. I apologize for delaying this electronic delivery today. Scanned copy was ready for me to send earlier in the day but on final read-through I found a few formatting glitches (outline numbering, spacing, pagination). I did not want to wait any longer for type / re-scan, so am passing this on as we head into the weekend. At first I included COL McCready in distro but I hesitated as CHPPM's got its name stamped on a less-than-perfect tech report. We'll make the corrections for hard copy.

After you and the Garrison Cdr have had a chance to read it, I would request your clearance to share with our colleagues at Maryland and Anne Arundel health depts.

Thank you for consulting us during these difficult circumstances, and we remain prepared to continue assisting in any way we can.

VR,

US Army Surveillance USACHPPM, ATTN: MCHB-TS-D
5158 Blackhawk Road, Aberdeen Proving Ground, MD 21010-5403 Office or Fax or Mobile or @us.army.mil

Classification: UNCLASSIFIED
Caveats: NONE
Good Morning All:

I absolutely agree with you in that if there are any requests for information (RFIs) from anyone with respect to installation (FT Meade) information, the RFI should be answered by an installation staff member. Anything medically-related to the bot tox case (or any medical information) should be managed by my primary POC here, LTC KACC-Ft Meade. If she needs assistance from CHPPM, AA County or WRMAC PM, she will contact the appropriate POC and be the conduit to respond to the RFI. Additionally, I desire LTC KACC-Ft Meade to be the conduit to communicate medical information to COL USACHPPM or whomever he designates.

COL USACHPPM sent an e-mail message this past weekend requesting support in terms of a review of the message he will send to the public (and place on the Ft Meade website). He would like to use the recommendations from the EPICON report [para 9a(1)-(9)] as the basis for his message. AND he wanted to update the community on the status of the recommendations.

As you know, we implemented recommendations 9a(1) through (4), (8) and (9). My concern was that there were recommendations made in the EPICON report that we (FT Meade) have no control over [i.e. 9a(5)-(7)] so I am not certain how to address those recommendations. Perhaps you can give me and LTC KACC-Ft Meade an update/some ideas.

Lastly, thank you all again for your support. As you know, the family continues to pursue this and claim a cover-up. I doubt we will ever squelch their concerns and if it were my baby, I might feel the same way.

I did not know that you were retiring this quickly and certainly hope that retirement brings you some much-needed rest, recreation, and quality time with your family. If there's anything you need, don't hesitate to call.

"Army Strong--One Team"

COL, MS
Commanding
Ft Meade MEDDAC and
Kimbrough Ambulatory Care Center
Office (301) ___
DSN ___

-----Original Message-----
From: COL USACHPPM
Sent: Tuesday, May 01, 2007 10:55 PM
To: MAJ USACHPPM; LTC USACHPPM; COL USACHPPM; MAJ USACHPPM
Subject: Re: CDC testing (UNCLASSIFIED)

Thanks for drafting. I want COL Cummings' input first. If your flight beats me tomorrow I'll send over my address and endorse.
Let me know what you think of this. I might specify that you (+/- via your PM shop) be the principal conduit for info flow, but I cannot presume you'll take that

Sent from my BlackBerry Wireless Handheld

Original Message:

From: MAJ USACHPPM
To: COL USACHPPM
Sent: Tue May 01 19:36:56 2007
Subject: FW: CDC testing (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Sir,

Here is the message I want to send to the group.

( ######## Mr USACHPPM; ######## Ms USACHPPM; ######## LTC WRAIR-Wash DC; ######## MAJ USACHPPM-Wash DC; ######## LTC KACC-Ft Meade; ######## Ms USACHPPM; hdruss11@aacounty.org; Blythe, David (Maryland) (CDC dphmz.state.md.us), ######## COL KACC-Ft Meade).

Appreciate your thoughts before sending.

VR.

All,

As many of you know COL (DR) is retiring very soon. He is currently clearing and will no longer be working this EPICON. He has asked LTC to stand in as the PM physician as we move forward (with MAJ support if available).

Recent events include:
1) This week has contacted Ms. (CHPPM Risk Communications) and Dr. Russo (AA County Public Health) reference our investigation. He has expressed great concern with our investigation. (see message below).
2) CDC lab results are expected with the next two weeks.
3) Fort Meade SJA has been in contact with me. COL Fort Meade Installation Commander, wants to publish an article on our investigation in the post newspaper. He is asking if we have any objections to publishing the information summarized in the draft EPICON report.

In my conversation with COL he has emphasized we focus on certain things as we move forward:

1) Be open and forthright but we should not tailor our EPICON or responses to a single individual and instead should focus on the entire Ft Meade community.
2) Risk Communication, PAO and SJA (legal) must be involved in all communications.
3) We must speak with a common voice and through a common source. We feel possible sources could be either Dr. Russo in the local public health district or Dr. Blythe at the State (might be advisable due to concerns of an "Army cover-up"). Source could be Fort Meade Preventive Medicine, or USACHPPM as well. Whoever it is, this source should communicate directly to the Fort Meade command to avoid confusion.
4) We should have legal and PAO advise before we communicate our results to the public.
5) CDC laboratory results are expected shortly and they will be reported to Dr. David Blythe and the Maryland Public Health Lab first.
6) We support lab results be included in the EPICON report but they must be explained by an expert.
7) We support (with SJA, PAO and Risk Communication review) the inclusion of a summary of the EPICON report in the local Ft Meade newspaper to keep the public informed.

Appreciate your professional opinions on these issues.
Sir,

... just called me reference the Ft Meade inf botulism EPICON. (parent of one Ft Meade infant bot case) called her this morning and they had a lengthy conversation reference his concerns. ... wants to discuss the next steps in responding to him.

Apparently ... found internet articles on: His housing being built on a land fill; School across the street from his quarters had been used as a psychiatric ward; Clostridium stored on Fort Meade and possible experiments with German POW's in WWII? He claims whoever he is speaking with at CDC is telling him they do not have any samples and his contact is also telling him the Army and state of MD made a decision not to send any samples to CDC (must be confusing clinical with environmental samples).

His specific questions are:
1) Who is doing DNA subtyping and the status?
2) What is the answer on testing the soil? If answer in no what is scientific rationale behind the decision?

wonders whether a conversation with ... would help to quell concerns. My continued contact with the CDC labs (see message below) show as of 25 APR 07 the results are not available. Appreciate your guidance on next steps.

Vr,

MAJ

-----Original Message-----
From: Maslanka, Susan (CDC/CCID/NCZVED) [mailto:sht5@cdc.gov]
Sent: Wednesday, April 25, 2007 5:55 PM
To: USACHPPM
Subject: Re: CDC testing (UNCLASSIFIED)

We are repeating some PFGE tests. Hope to get them complete in the next week or so and then I will provide a report to MD.

I can tell you so that you might plan your next steps, that I do not think we will be able to distinguish the 2 case isolates based on our tests (PCR, RAPD, PFGE, and DNA gene sequencing).

Susan

Sent from my BlackBerry Wireless Handheld

-----Original Message-----
From: MAJ USACHPPM <USACHPPM@us.army.mil>
To: Maslanka, Susan (CDC/CCID/NCZVED) <sht5@cdc.gov>
Sent: Wed Apr 25 16:28:00 2007
Subject: FW: CDC testing (UNCLASSIFIED)

Classification: UNCLASSIFIED
Dr. Maslanka,

Just another follow up on the subtyping for the Fort Meade, MD cases. Our customer wants an update so just checking to see if you have any results available. Thanks,

MAJ

---Original Message---
From: CIV USA USAIMA
Sent: Wednesday, April 25, 2007 3:31 PM
To: COL USACHPPM; MAJ USACHPPM
Cc: MA
Subject: FW: CDC testing (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hi

This is the best update we can provide. Still awaiting lab results.

On another note, I'd mentioned briefly to COL about possibly doing some kind of evaluation within the local community about how the disease response was conducted. I would still like for you all to consider that, if you're willing. We can develop the community response mechanism in several forms (e.g., interviews, focus groups, online anonymous survey, etc.). But doing that kind of thing would be very helpful to us at CHPPM in improving future responses, and could provide you with data re: how the local Command responded. Just something to think about.

The best answer I can provide is quote from CDC's Dr. Maslanka below.

It may seem unusual for length of time required, but with very specific and rarely applied diagnostics that also require QC and verification, etc., this is not really unusual from the CDC or any high-level reference lab.

Thanks.
BP

---Original Message---
From: MAJ USACHPPM
Sent: Wednesday, April 04, 2007 5:38 PM
To: COL USACHPPM
Subject: FW: CDC testing (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Sir,

Still no intestinal bot results.

MAJ

---Original Message---
From: Maslanka, Susan (CDC/CCID/NCZVED) [mailto:sht5@cdc.gov]
Sent: Wednesday, April 04, 2007 11:19 AM
To: MAJ USACHPPM
Subject: CDC testing

I received your voice mail. We are still conducting tests on isolates received from MD State Health Department. We hope these will be completed in the next few weeks.

Susan

Susan Maslanka, PhD
Team Leader
Colleagues,

As some of you know I am in the process of retiring from active duty. I am currently clearing / outprocessing, and will no longer be working this EPICON in the same, official capacity as previously. From CHPPM end, MAJ [redacted] is the lead epidemiologist. I have asked Drs. [redacted] and [redacted] to provide PM physician coverage on various ongoing projects for which they were not already in the lead, and this would fall into that arena.

MAJ [redacted] and COL [redacted] nicely summarize recent events as follows, and I liberally plagiarize from their respective emails:

1. This week [redacted] contacted [redacted] (CHPPM Risk Communications) and Dr. Russo (AA County Public Health) reference our investigation, about which he expressed great concern.
2. Complete CDC lab results are expected with the next two weeks. It is not looking as though the two clinical case isolates will be linkable by subtyping (i.e., same type neither ruled in nor ruled out), which may have implications for any possible plan to pursue environmental sampling. This statement is not final so please do not transmit further.
3. Fort Meade legal (SJA) has been in contact with MAJ [redacted] and COL [redacted]. Fort Meade Installation Commander, sent an e-mail message this past weekend requesting support in terms of a review of the message he will send to the public (and place on the Ft Meade website). He would like to use the recommendations from the EPICON report [para 9a(1)-(9)] as the basis for his message; and he wanted to update the community on the status of the recommendations.
4. COL [redacted] wants to publish an article on our investigation in the post newspaper. He is asking if we have any objections to publishing the information summarized in the draft EPICON report. CHPPM PAO [redacted] recommends:

Assuming the report is releaseable (i.e., assuming COL [redacted] has decided it is), it can be posted to the post website if so desired--and the article can reference it. In the article, all questions should be referred to Meade PAO--who can sort out the ones that are for the installation and refer the ones specifically about the EPICON to CHPPM PAO (NOT directly to our subject-matter experts).

In addition MAJ [redacted] and I recommend we focus on certain things as we move forward:

1) Be open and forthright but not tailor our EPICON or responses to a single individual and instead should focus on the entire FT Meade community.
2) Risk Communication, PAO and--as necessary--SJA should be involved in all communications.
3) It may be wise to have both legal and PAO review of any specific laboratory results before they are communicated to the public.
4) CDC laboratory results will be reported to Dr. David Blythe and the Maryland Public Health Lab first.
5) We support lab results being an addendum to the EPICON report but they must be explained by an expert.
6) We must speak with a common voice and through a common source. In this regard COL [redacted] recommends:
For any requests for information (RFIs) from anyone with respect to installation (FT Meade) information, the RFI should be answered by an installation staff member. Anything medically-related to the hot tox case (or any medical information) should be managed by Kimbrough primary POC LTC [redacted] who, in turn if she needs assistance from CHPPM, AA County or WRAMC PM, can contact the appropriate POC and be the conduit to respond to the RFI. Additionally, LTC Cole-Wainwright should be the conduit to communicate medical information to COL McCreedy or whomever he designates.

Appreciate your attention.

Respectfully,

COL [redacted]

Classification: UNCLASSIFIED

Caveats: NONE
Ma'am,

Attached is our proposed press release. Appreciate your input on this before we send as final. No final word from the Maryland Department of Health and Mental Hygiene (MDHMH) as to CDC lab results. However, we feel results are coming from a request from the MDHMH to the CDC and will not change our investigation.

Have included Dr. [REDACTED] as our new PM doc consultant on the project in case you have any questions.

VR,

MAJ [REDACTED]

Classification: UNCLASSIFIED
Caveats: NONE
Fort Meade, MD—The final report of the special Epidemiological Consultation Team gathered to investigate two cases of infant (intestinal) botulism at Fort Meade has been released. Results indicate that no common exposures or food sources caused two cases of infant (intestinal) botulism here. The Army Center for Health Promotion and Preventive Medicine (CHPPM) led the team, in consultation with several non-military experts.

“These investigations are difficult for at least two reasons,” said CHPPM epidemiologist and team leader. “First, neither baby was fed honey—known to be a prime source of the disease in babies—or any of the same foods. That eliminated the most common cause of intestinal botulism, tainted foods.”

Once food had been eliminated as a potential cause, team epidemiologists consulted with experts outside of the Department of Defense to determine whether environmental testing could assist in finding a cause for the two cases.

“This is because *Clostridium botulinum* spores, which can cause intestinal botulism, are found in soils and dust worldwide,” said. “Our team reached out to state and local public health organizations as well as national infant botulism experts to ensure we did not overlook a common source that could cause other Fort Meade infants to become ill.”

Non-military experts consulted included medical and epidemiological experts from the state of California (recognized as a world leader in infant botulism treatment and research); the Maryland and Anne Arundel County public health officials; and the Centers for Disease Control and Prevention (CDC). All agreed that it was unlikely environmental testing would find a link between the cases and the environment, according to the report.

The team provided these findings in a written report to COL [redacted], Fort Meade garrison commander, on March 5th, 2006.

The state of Maryland Department of Public Health has also asked the CDC’s botulism laboratory to conduct subtype testing (analysis) of stool specimens from both infants to try to identify the specific bacteria that can cause infant botulism. The garrison is currently awaiting these results which will be provided by the state of Maryland. CHPPM epidemiologists do not believe that these test results will affect their investigation.

The two infant botulism cases occurred in October and December, 2006 and both infants made a full recovery. No additional cases have been detected.

There are no known prevention strategies for non-foodborne intestinal botulism, so the report recommendations focus on increasing awareness of this illness and its symptoms within the local medical community; continuing to monitor the number of cases within DOD; educating families about the illness; and, on a local level, ensuring that construction companies working on Fort Meade take steps to minimize dust.

Lt. Col. [redacted], Chief Preventive Medicine at Kimbrough Ambulatory Care Center on Fort Meade, credits the infants’ speedy recovery to the parents, who detected changes in their babies’ behavior and sought medical care promptly.

“Noticing changes in their babies’ behavior and seeking medical care resulted in rapid treatment that may have saved their lives,” said.
The CHPPM report is downloadable on the Fort Meade website at [direct URL]. Information on the causes and prevention of infant botulism is available on the same site at http://www.ftmeade.army.mil/botulism.html.
MEMORANDUM FOR Commander, Fort George G. Meade, Building 4550 Parade Field Lane, Fort Meade, MD 20755

SUBJECT: Epidemiological Consultation No. 13-HG-06TU-07, Investigation of Two Intestinal Botulism Cases at Fort Meade, Maryland, October – December 2006

1. We are enclosing a copy of the subject report with an Executive Summary.

2. Direct inquiries regarding this report to MAJ [name redacted], Directorate of Epidemiology and Disease Surveillance, at commercial (410) [number redacted], DSN [number redacted], or email to [email redacted]@us.army.mil.

FOR THE COMMANDER:

[Signature]

Encl

COL, MC
Director, Epidemiology and Disease Surveillance

CF: (w/encl)
KACC (MXCR-PM)
U.S. Army Center for Health Promotion and Preventive Medicine

Epidemiological Consultation No. 13-HG-06TU-07
Investigation of Two Intestinal Botulism Cases
At Fort Meade, Maryland
October - December 2006

Distribution Limited to U.S. Government agencies and their contractors; protection of privileged information; Feb 07. Other requests for this document shall be referred to Commander, Fort George G. Meade, Building 4550 Parade Field Lane, Fort Meade, MD 20755

Readiness Thru Health
DESTRUCTION NOTICE - Destroy by any method that will prevent disclosure of contents or reconstruction of the document.
EXECUTIVE SUMMARY
EPIDEMIOLOGICAL CONSULTATION NO. 13-HG-06TU-07
INVESTIGATION OF TWO INTESTINAL BOTULISM CASES
AT FORT MEADE, MARYLAND
OCTOBER - DECEMBER 2006

1. PURPOSE. The purpose of this epidemiological consultation (EPICON) was to investigate a cluster of Clostridium botulinum (C. botulinum) in infants at Fort Meade, Maryland. The Kimbrough Ambulatory Care Center Commander at Fort Meade requested assistance from the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) after two infants living on the same street, approximately 116 meters apart, contracted intestinal botulism in October 2006 and December 2006, respectively.

2. BACKGROUND. Intestinal botulism, also known as infant botulism, is a rare but serious paralytic illness that almost always occurs in children under 1 year of age. On very rare occasions it can occur in older children and adults after bowel surgery, when people are affected with inflammatory bowel disease, or after antimicrobial therapy (Redbook 2006). Botulism is caused by a nerve toxin released by the bacterium C. botulinum, which can be found in soil and dust worldwide. Most cases of botulism affecting children older than 1 year of age and adults occur when spores germinate in improperly prepared foods, producing toxin that affects humans when the contaminated food is eaten. In contrast, cases of intestinal botulism are believed to occur when spores are ingested and are able to germinate within the intestines and produce toxin. It is believed that a permissive environment within the intestines in infants allows the bacteria to grow and produce toxin. In most intestinal botulism cases a source for the ingestion is never identified. In cases of intestinal botulism, toxin and bacteria may be found in stool specimens.

3. METHODS. The USACHPPM formed an EPICON team for this investigation. The team consulted subject matter experts from the Centers for Disease Control and Prevention (CDC), the California Department of Health Services (CDHS), the Maryland Department of Health and Mental Hygiene (DHMH), and the Anne Arundel County Department of Health. The CDHS was consulted because of its nationally renowned expertise in infant botulism. The team interviewed the affected infants’ parents using a modified version of the CDC’s infant botulism questionnaire. Stool specimens had been collected by the inpatient pediatric team at the Walter Reed Army Medical Center (WRAMC) and tested by the Maryland DHMH. C. botulinum has been isolated from both samples, and isolates will be sent to the CDC for sub typing.

Readiness thru Health
The EPICON personnel conducted town hall meetings with the Fort Meade Garrison Commander to address community concerns. Investigators also provided information sheets to local residents, provided press releases, and conducted media interviews.

4. CONCLUSIONS.

a. Interviews with each family revealed no common exposures that may have been a likely source of the outbreak, and no possible food sources. The risk communication effort was intensified due to the high level of community concern regarding transmission and environmental factors discussed in the interviews, such as nearby construction. This quelled the fears of most Fort Meade residents; however, a local newspaper reported that the parents of one of the affected infants plans to sue the Army, claiming there was negligence in seeking the cause of the two cases. They reportedly believe that dirt from a construction site one block away from the street where both families live is the source of the spores, that soil testing should have been undertaken, and that the Army is intentionally avoiding such sampling because Fort Meade is a Superfund site.

b. Proving or disproving a link with the environment is a dubious task given the lack of previous research in the area. It is widely believed that botulism type B is endemic to the soil in the area and over the entire East Coast of the U.S. Numerous discussions were held with leading C. botulinum experts, CDC representatives, and Maryland and Anne Arundel County public health officials about proceeding with environmental testing. The consensus of this group was that environmental testing would not prove or disprove a link between the cases and the environment. In addition, there are no known public health prevention strategies for non-foodborne C. botulinum. The Agency for Toxic Substances and Disease Registry does list Fort Meade on the National Priorities List, but their report indicates that the waste sites are far from the current location of the cases. Moreover, while prior dumping sites for waste and dead carcasses are theorized to be a viable source for C. botulinum, there has been no evidence to support this.

c. The scientific literature suggests numerous possible modes of ingestion of C. botulinum by infants which could be relevant to this investigation, but none of which are proven. The EPICON team could not find a link between the two cases at Fort Meade, other than the residential proximity itself. Much needs to be learned about the epidemiology of infant botulism and the EPICON team reached out to the leading scientists in this field. Possible collaborations for long-term environmental and laboratory research projects were discussed, as each discovered cluster of infections affords a possible opportunity to better elucidate non-foodborne modes of C. botulinum transmission.
5. RECOMMENDATIONS.

a. Make Military Health System (MHS) providers throughout the National Capital Region (NCR) aware of the two cases at Fort Meade in order to reinforce the need to seriously consider botulism in the differential diagnosis when evaluating infants with paralytic signs or significant constipation and when Sudden Infant Death Syndrome cases are encountered.

b. Reinforce the need for NCR clinic staff to communicate reportable medical events to both civilian and military public health authorities.

c. Encourage referral centers like WRAMC to engage preventive medicine personnel (both its own and those of pertinent installations) early in the course of such events.

d. Enhance Army epidemiologic surveillance for botulism cases.

e. Establish a DOD registry of dependent fatalities.

f. Improve centralized access to military clinical laboratory data.

g. Inform NCR beneficiary parents of newborns and infants about intestinal botulism as part of child health education.

h. Ensure construction contracts serving Fort Meade and other installations require control measures to minimize dispersion of fugitive dust.

i. Continue risk communication efforts on a scaled-down basis, monitor media coverage, and remain ready to respond to community rumors, misunderstandings and misperceptions in a timely manner.
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Paragraph</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. REFERENCES</td>
<td>1</td>
</tr>
<tr>
<td>2. PURPOSE</td>
<td>1</td>
</tr>
<tr>
<td>3. AUTHORITY</td>
<td>1</td>
</tr>
<tr>
<td>4. BACKGROUND</td>
<td>1</td>
</tr>
<tr>
<td>5. METHODS</td>
<td></td>
</tr>
<tr>
<td>6. FINDINGS/RESULTS</td>
<td></td>
</tr>
<tr>
<td>7. DISCUSSION/CONCLUSIONS</td>
<td></td>
</tr>
<tr>
<td>8. LIMITATIONS</td>
<td></td>
</tr>
<tr>
<td>9. RECOMMENDATIONS</td>
<td></td>
</tr>
<tr>
<td>10. POINT OF CONTACT</td>
<td></td>
</tr>
</tbody>
</table>

Appendices

A. REFERENCES ................................................................. A-1

B. CLOSTRIDIUM BOTULINUM QUESTIONNAIRE USED FOR INVESTIGATION ........................................ B-1

C. RISK COMMUNICATION PRODUCTS AND MEDIA RELEASES FOR CLOSTRIDIUM BOTULINUM INVESTIGATION ........................................... C-1

D. ARMED FORCES INSTITUTE OF PATHOLOGY (AFIP) PROPOSAL TO FUND DEVELOPMENT OF A DEPENDENT MORTALITY BASE ........................................ D-1
EPIDEMIOLOGICAL CONSULTATION NO. 13-HG-06TU-07
INVESTIGATION OF TWO INTESTINAL BOTULISM CASES
AT FORT MEADE, MARYLAND
OCTOBER - DECEMBER 2006

1. REFERENCES. Appendix A contains the references used in this report.

2. PURPOSE. The purpose of this epidemiological consultation (EPICON) was to investigate Clostridium botulinum (C. botulinum) infection of two infants on Fort Meade, Maryland.

3. AUTHORITY. The U.S. Army Medical Department Activity (MEDDAC) Commander at Fort Meade requested assistance from the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) after two infants living on the same street, approximately 116 meters apart, contracted intestinal botulism in October 2006 and December 2006, respectively. In response to this request, the USACHPPM formed an EPICON team to perform an investigation.

4. BACKGROUND.

   a. C. botulinum is an anaerobic spore-forming, rod-shaped bacterium that produces botulinum neurotoxin, the causative agent of botulism (reference 1). C. botulinum is known to produce seven distinct toxins including A, B, C1, D, E, F, and G. Release of these toxins at presynaptic nerve terminals causes paralysis (reference 2).

   b. Specific toxin types of C. botulinum are usually associated with specific geographic regions within the United States (U.S.). While both type A and B cases are seen in the western U.S., type A predominates west of the Rocky Mountains (reference 3). Type B has been isolated more frequently in cases in the eastern U.S., specifically Pennsylvania and New York. Toxin types C, D, and F are less defined to a specific region, but are typically isolated from animals rather than humans, and all three of these types are poorly absorbed by the human intestine, which is essential for inducing neurological symptoms associated with botulism. Fresh water and fish ingestion have been associated with outbreaks of botulism type E. These outbreaks have historically been limited to the Baltic, Alaskan, and the Great Lakes areas (reference 3).

   c. There are three major types of botulism found in humans: foodborne, wound, and intestinal (otherwise known as infant) botulism.

Use of trademarked name(s) does not imply endorsement by the U.S. Army but is intended only to assist in identification of a specific product.
(1) Foodborne botulism is typically caused by ingesting preformed toxin from improperly preserved food items. Wound botulism, similar to other wound infections, is caused by the bacteria embedding under subcutaneous skin or deep inside an open area on the body, where they then produce the toxin. Intestinal botulism, which was first reported in 1976 (reference 4), occurs almost exclusively in infants, with the range of affected ages being 1 to 63 weeks. The majority of all cases occur in infants under 6 months of age, with the average age of reported cases being 13 weeks (reference 5). Cases are thought to be caused by ingestion of \textit{C. botulinum} spores that subsequently colonize the large intestine and produce botulinum neurotoxin (references 4 and 6).

(2) While botulism cases occur throughout the world, the diagnosis of infant botulism is relatively uncommon in less developed countries (reference 7). There are numerous reasons for this trend, but perhaps the biggest is the amount of resources and testing required for a definitive diagnosis of infant botulism. \textit{C. botulinum} in infants is the most commonly diagnosed type of botulinum intoxication in the U.S. (reference 6); despite this, only about 2 infant botulism cases are known to occur annually for every 100,000 live U.S. births (references 8 through 13). The case fatality rate for infant botulism in the U.S. is about 1.3 percent and less than 1 percent for hospitalized infants (reference 8). However, studies suggest that some cases of Sudden Infant Death Syndrome (SIDS), which affects more than 4,500 infants in the U.S. each year or approximately 50 infants per 100,000 live births, may be due to infant botulism (reference 9). Although the actual rate of fatal botulism falsely attributed to SIDS is unknown, studies analyzing infants who died from SIDS in the U.S. found botulism bacteria or toxin in up to 5 percent of examined SIDS cases (references 8, 9, 10, and 13). Some European studies have found higher rates (references 11 and 12).

d. Since infants cannot communicate symptoms, parental and provider awareness are keys to early diagnosis and treatment. Signs of infant botulism include: constipation, weakness (affecting gag, cry, sucking and swallow functioning), flaccid paralysis or “floppy baby syndrome,” poor feeding, lethargy and hypotonia (reference 6). Prompt laboratory diagnosis is necessary to rule out other degenerative neuromuscular diseases. A test for toxin in the infant’s stool specimen is conducted to identify and type the toxin. A confirmatory test is conducted by culturing the fecal specimen to isolate \textit{C. botulinum}. However, typical infant botulism laboratory analysis stops at this step. Laboratory subtyping from clinical isolates are not usually done, but are part of broader research in the few laboratories equipped to do such testing.

e. Historically, there has not been a treatment protocol for infant botulism with the exception of treating specific symptoms. However, in 2003, the Food and Drug Administration approved Botulism Immune Globulin Intravenous (Human) (BabyBIG) for treatment of infant botulism cases with toxin A or B. This treatment consists of botulism antitoxin antibodies that are derived from humans (reference 14).
f. Commonly known vectors such as honey or syrup have been shown to be the source of several infant botulism cases. However, these risk factors can only be demonstrated in 10 percent of all infant botulism cases (reference 15). Recent research suggests that spores of the toxin-forming agent may be introduced by ingesting environmental materials such as dust or soil. Given that C. botulinum is ubiquitous in soils around the world, ingested dust and soil are thought to be likely culprits of infant botulism (reference 15).

g. In late 2006, two cases of infant botulism type B were identified among Department of Defense (DOD) beneficiaries hospitalized at the Walter Reed Army Medical Center (WRAMC). The cases occurred approximately 3 months apart and the infants involved lived in the same residential area in Fort Meade, Maryland, approximately 116 meters apart. The proximity of the cases increased community concern and sparked the investigation summarized in this EPICON.

h. While the incidence of C. botulinum infection among infants is rare, it is not unprecedented to have clustering of cases. A review of literature reveals numerous infant botulism clusters that have been investigated (references 16 through 18). More recently, a new unpublished report indicated a cluster of infant botulism types A and B at Vandenberg Air Force Base in southern California. Like the cases presented in this report, there were two cases of confirmed infant botulism among base residents within 3 months of onset. Foodborne transmission for both cases was ruled out, and investigators concluded that the disease was contracted through ingestion of soil or dust which may naturally contain spores.

5. METHODS.

a. EPICON Team. Principal team members from the USACHPPM included two preventive medicine physicians, three epidemiologists (including one with environmental health expertise), and one risk communication specialist. This team worked with preventive medicine personnel at Fort Meade, medical epidemiologists from the Anne Arundel County Department of Health and the Maryland Department of Health and Mental Hygiene (DHMH), and public affairs professionals from these various organizations. The EPICON personnel and their civilian public health partners also conducted telephonic conferencing with a team of C. botulinum experts from the Centers for Disease Control and Prevention (CDC) and the California Department of Health Services (CDHS). Additionally, military medical and laboratory surveillance agencies for all service branches were consulted to identify and confirm additional cases. These agencies included the Army Medical Surveillance Activity (AMSA), the Navy Environmental Health Center (NEHC), the Air Force Institute of Operational Health (AFIOH), and the Armed Forces Medical Examiner.
b. **Case Interviews.**

(1) A modified investigation form (appendix B) was developed using the CDC’s standard infant botulism form (A Guide to Investigation of Infant Botulism, CDC 52.73 REV. 9-87) and a standardized questionnaire from the New York City Department of Health and Mental Hygiene. The form was designed to be more specific for military families regarding factors such as residence, potential exposures in the military, and housing. Information collected included demographics, onset dates, clinical presentation, food history, travel history, and exposures to known or suspected botulism sources.

(2) A team of four conducted the interviews with the parents of each case. Questions were asked by one person to remove question bias from the interview. Questions were asked in the same order for each case, and responses were recorded by all four team members. Each interview lasted for approximately 1 hour. After the interviews, responses to each question were typed by one member of the team and reviewed by the other three members for accuracy. Afterwards, the entire EPICON team reviewed the responses for commonalities between the two cases and possible exposure links.

c. **Case Finding and Surveillance.**

(1) The Army Medical Surveillance Activity operates a longitudinal epidemiological database called the Defense Medical Surveillance System (DMSS), which contains healthcare encounter data and demographics of all US military personnel and other beneficiaries, and which is also the central repository for DOD Reportable Medical Events (RMES). The MHS Mart (M2) also contains healthcare encounter and demographic data. Both DMSS and M2 were queried to identify infant botulism cases diagnosed among military health system beneficiaries from calendar year (CY) 2002 through CY 2006. The inpatient queries were structured to identify any hospital admissions of infants under 1 year of age who were diagnosed with a primary or secondary diagnosis of infant botulism or which were reported through the RMES. If beneficiaries sought care at civilian facilities, these encounters were captured only if a billing claim was processed through TRICARE, the military health insurer. All data were consolidated into one case file which was then limited to unique cases. For each probable case identified through record review, AMSA, NEHC, and AFIOH were consulted to determine if the cases had confirmatory laboratory results. Because DOD laboratory records are not readily accessible prior to July 2006 and testing may also occur outside the DOD, confirmation was only available for cases reported through the RMES reports. The Defense Enrollment Eligibility Reporting System (DEERS) was then queried to determine live births among DOD active duty beneficiaries for CY 2003 through CY 2006; CY 2002 DEERS data were not available within M2.
(2) The Maryland DHMH was also consulted to identify cases reported in the state of Maryland and also specifically within Anne Arundel County, where Fort Meade is located.

(3) The EPICON team also consulted with the Office of the Armed Forces Medical Examiner (OAFME), the Baltimore Medical Examiner’s Office, and the Maryland DHMH to gather information regarding fatalities classified as either SIDS or infant botulism.

d. Environmental Analysis. Sampling of environmental sources for *C. botulinum* type B was strongly considered by all parties involved in the investigation. After consulting with experts in the field, it was determined that environmental sampling would not add to this investigation and thus it was not conducted. However, collaboration with, and submission of environmental samples to, the Infant Botulism Treatment and Prevention Program in California was offered as part of long-term research and may occur in the future. In addition, a layout of the immediate construction sites and the cases’ residences was developed using a measuring wheel for distances. Distances were measured and marked for the residences, playground, football field, and possible construction site. Figure 1 shows this layout. Prior land use was also thoroughly researched for any possible botulinum contamination or biological use that may induce growth of *C. botulinum*.

Figure 1. Layout of Case-Patient Residences and Possible Soil or Dust Exposures
e. Provider Education. MHS providers throughout the NCR were made aware of the two cases from Fort Meade as a means of reinforcing the need to seriously consider botulism when evaluating infants being seen because of paralytic signs or significant constipation, and when SIDS cases are encountered. Providers and clinic staff also received a reinforcing message about the need to communicate reportable medical events to both civilian and military public health authorities.

f. Risk Communication.

(1) From the beginning, Fort Meade’s response focused on educating healthcare providers and the local community about the issue and on direct interaction with the affected families and other Fort Meade residents where the two affected infants lived. Kimbrough Ambulatory Care Center (KACC) notified all military healthcare providers in the NCR of the existence of the two cases and symptoms commonly associated with the disease. The Fort Meade Garrison Commander and KACC staff also immediately teamed up to personally visit both infants’ families to identify unmet needs and to hand deliver risk communication products to the remaining residents. Risk communication products were also distributed to on-post child development centers, the media, and eventually to in-home childcare providers when that gap was identified. Risk communication products and media releases are in appendix C.

(2) Risk communication efforts regarding this issue incorporated several key risk communication principles—

(a) Discussing the bad news first and in a timely manner.

(b) Contacting the affected families and area residents in person.

(c) Identifying and using consistent spokespersons.

(d) Aligning response efforts with nonmilitary experts on infant botulism (that is, county and state health departments, the CDC, and the State of California where most infant botulism cases in the U.S. have occurred) to ensure that actions taken or proposed were scientifically valid.
6. FINDINGS/RESULTS.

   a. Interviews and Clinical Case Summaries.

      (1) Case 1.
(2) Case 2.
b. Epidemiology.

(1) Fewer than 100 cases of laboratory-confirmed infant botulism have been identified each year within the U.S., which equates to a rate of about 2 cases per 100,000 live births (reference 19). Review of public health reports revealed that a total of 16 laboratory-confirmed cases of infant botulism (primarily type B) were reported in the State of Maryland from 1976 through 1996 (reference 5). The Anne Arundel County Department of Health, whose district includes Fort Meade, was consulted to identify additional cases reported in the state of Maryland since 1996. They had documented 30 laboratory-confirmed cases during this time frame, bringing the cumulative 30-year total to 46 cases. Case reports were sporadic, ranging from 0 to 6 cases reported per year. The 2005 incidence rate was 6.7 cases per 100,000 live births (reference 20). Table 1 shows U.S., Maryland, and Anne Arundel County case reports from calendar years 2002 through 2006.

Table 1. Laboratory-Confirmed Infant Botulism Cases, CY 2002–CY 2006

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>69</td>
<td>76</td>
<td>87</td>
<td>85</td>
<td>88</td>
</tr>
<tr>
<td>Maryland</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Anne Arundel County</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

2Maryland and Anne Arundel County figures provided by the Anne Arundel County Department of Health.

(2) Table 2 provides information regarding cases of infant botulism diagnosed among MHS beneficiaries from 2002 through 2006. During the 5 calendar year period evaluated, approximately 85,000 to 105,000 live births were documented annually among DOD active duty beneficiaries. A total of 16 unique cases of infant botulism were identified during this period. A total of 2 probable cases were diagnosed in 2002, 3 occurred in 2003, 2 in 2004, 1 in 2005, and 8 in 2006, representing 2003 through 2006 annual rates of 3.5 cases, 3 cases, 1 case, and 8.6 cases per 100,000 live births, respectively. (Denominator data were not available for CY 2002 from M2 due to limitations with the M2 interface used to query the DEERS system; therefore, rates could not be generated prior to CY2003.) All cases were under 6 months of age, and there
was not a male or female predominance. The majority (71 percent) of cases were from the West Coast or the Great Plains region. These findings are consistent with the literature (references 1, 6, 16, and 22). Of the 16 cases identified, only 6 were laboratory-confirmed based on RME reports.

Table 2. Infant Botulism Among DOD Active-Duty Beneficiaries, CY 2002-CY 2006

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Probable cases*</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Laboratory-confirmed cases</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Total live births</td>
<td>NA</td>
<td>85,531</td>
<td>101,522</td>
<td>104,356</td>
<td>92,551</td>
</tr>
<tr>
<td>Age (months):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Gender:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Male</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Sponsor Service:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Army</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Air Force</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Navy</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Marines</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>State:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arizona</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>California</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Georgia</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Kansas</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Maryland</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>New York</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>North Carolina</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Utah</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Texas</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Washington</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Quarter hospitalized:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2nd</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>3rd</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>4th</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

*Probable cases are cases with clinical presentation, lacking confirmatory laboratory tests; cases were identified through International Classification of Diseases, Ninth Revision (ICD-9) diagnosis codes entered into the patient's electronic medical record during hospitalization (reference 23).
(3) In the process of reviewing case medical records, a similar clustering of cases as that observed at Fort Meade was detected in 2006 at Vandenberg Air Force Base in southern California. Two infants living in military housing on the same base were diagnosed within 3 months of each other, the first case being diagnosed in March 2006 and the second in May 2006. Case 1 was determined to be botulinum type B and the second was type A. Preventive medicine personnel questioned stated that the cases resided within 2 miles of each other. They were able to rule out the possibility of the cases being foodborne, but could not identify any epidemiologic links between the two cases. They consulted with the CDHS and concluded that the cases were probably acquired by ingestion of spores which occurred naturally in the environment, and noted nearby construction at a service station.

(4) Further review of public documents regarding infant mortality revealed that within the State of Maryland approximately 50 SIDS cases are reported each year while mortality due to infant botulism has not been documented in the state (reference 24). The Baltimore Medical Examiner's Office further stated that because SIDS is considered a cause of death, the Medical Examiner does not test victims for potential underlying causes such as infant botulism. Interviews with the OAFME revealed that the organization has no visibility in regard to continental U.S. (CONUS) dependent fatalities due to DOD casualty operations policy. Furthermore, because the State of Maryland annual reports do not distinguish between deaths among military members versus civilians it was not possible to determine if any SIDS cases were among military beneficiaries.

c. Risk Communication. Because of the high level of community concern associated with this issue, risk communication efforts by Fort Meade and the investigators were critical in the overall response. Target audiences included the Fort Meade residential and childcare communities because of their heightened concerns and local military and civilian healthcare providers to ensure increased vigilance.

(1) Risk communication efforts involved education through information sheets, weekly updates, links to non-military resources, video/audio files of media interviews, personal outreach by the Fort Meade MEDDAC Commander and KACC, and town hall meetings to answer questions and discuss lingering concerns. Collaboration with nonmilitary experts likely assisted in addressing community concerns due to their neutrality about the proposed investigative approach. Media interest was intense and extended well beyond the local area.

(2) Several media interviews were conducted by the Fort Meade Garrison Commander, the EPICON team leader, and the KACC Chief of Preventive Medicine, to include those with National Public Radio (NPR), The Baltimore Sun, and the Washington D.C. affiliates of ABC and CBS television networks.
d. Laboratory Testing. Initial laboratory testing for both cases was performed by the Maryland DHMH Public Health Laboratory.

e. Mapping. Mapping of the area demonstrated that the residences of case 1 and case 2 were approximately 116 meters apart. Case 1 was slightly downhill of the playground, which in turn was slightly uphill of the dirt mound. The dirt mound was about 238 meters from case 1. Case 2 was much closer to this dirt mound (~150 meters) and was slightly uphill from it. (See figure 1).

f. Environmental Testing. Due to parental concern expressed to the media in reference to hazardous waste “Superfund” sites on Fort Meade, the EPICON team explored historical records regarding land use at Fort Meade. Fort Meade was listed on the Environmental Protection Agency’s National Priorities List of hazardous waste sites on 22 July 1998 (reference 25). Due to this, the EPICON team researched the history of the site near residences where the cases occurred to identify any possible prior use, such as use for relocation/management of waste. The 1999 Agency for Toxic Substances and Disease Registry (ATSDR) public health assessment on Fort Meade (reference 25) and the 1989 U.S. Army Environmental Hygiene Agency’s evaluation of solid waste management on Fort Meade (reference 26) listed numerous waste sites, including chemical containments and landfill sites (references 25 and 26). No waste sites were identified in the immediate area of residence for the cases.

7. DISCUSSION/CONCLUSIONS.

a. Investigation.

(1) The epidemiology of infant botulism is not well understood. Its rare occurrence, and the inability of epidemiologists to identify the source of causative bacterial spores in non-foodborne cases, significantly limits any effort to prove or disprove links among cases. Although risk factors for infant botulism have been well studied, investigations are often inconclusive, and specific biological physiologies for developing infections are less well described. Spika et al identified several possible risk factors for infant botulism, including living in a rural area, breast-feeding infants over 2 months of age, less than one bowel movement per day for at least 2 months, and ingestion of corn syrup (references 1, 22, and 27). Other studies suggest hospitalized infant botulism cases tend to have higher birth weights and to be born to mothers that tend to be white, older and better educated (reference 5). Breast-feeding is more common in cases (references 17 and 28) and is associated with later onset in type B cases (reference 28). The rarity of infant botulism further complicates diagnosis, treatment, and prevention efforts for clinicians, microbiologists and epidemiologists.
Upon initial review, there was concern that the two cases were linked in some way and that other infants in the community could be at risk. Thus, a thorough consultation was conducted to investigate all known risk factors for infant botulism. Both families shopped for groceries at the same commissary, as do most other families who live on Fort Meade. Still, foodborne agents were quickly ruled out due to the fact that the affected infants did not consume any food from a common source. In fact, case 1 was breast-fed almost exclusively, while case 2 was fed supplement. Known food risk factors such as honey and corn syrup were never used in either case. After ruling out common food agents, the investigation then looked for common exposures such as public gatherings, churches, day care facilities, and parents’ occupational exposures. Each of the parents work in a different setting, and none of the four came into contact with each other during the course of their work. Furthermore, neither of the families shared the same church or public places. The families had no known contact with each other prior to onset of the cases. Thus, transmission is unlikely to have occurred in a child care setting or any other public location. In addition, the cases emerged three months apart and the families were not known associates, thus person-to-person transmission is highly unlikely, especially given that person-to-person transmission has never been documented.

The investigation then turned to environmental exposures. Proving or disproving a link with the environment is a dubious task given the lack of previous research in the area. Several studies have indicated that *C. botulinum* is endemic to many parts of the world and ultimately resides in the soil (references 1, 7, 15, 16, and 22). In particular, it is widely believed that botulism type B is endemic to the soil in the area and over the entire East Coast of the U.S. Numerous discussions were held with leading *C. botulinum* experts, CDC representatives, and Maryland and Anne Arundel County public health officials about proceeding with environmental testing. The consensus of this group was that environmental testing would not prove or disprove a link between the cases and the environment. In addition, there are no known public health prevention strategies for non-foodborne *C. botulinum*. Reasons for this decision were: little is known about the diversity of the organism (that is, no library to compare with), the ability of laboratory methods to discriminate among *C. botulinum* subtypes (reference 29) is limited; laboratory capacity is limited; and finally, due to the ubiquitous and dispersed nature of the organism, the probability of collecting the exact soil sample containing the causal agent is miniscule.

It is interesting to note that one group of researchers in this field found an apparent "cluster" of *C. botulinum* strains that were identified by Pulsed-Field Gel Electrophoresis (PFGE) approach as being more than 90 percent similar. However, the isolates were from different types of materials from two different continents and were collected over an extended period of time (reference 29). These results highlight the limitations to current laboratory methods in linking cases in a suspected cluster. Current efforts are underway in California to develop a *C. botulinum* library of genetic material that may one day be utilized for PFGE or
Amplified Fragment Length Polymorphism in matching human-linked strains of the organism with environmental samples. However, this library is not yet complete. Therefore, the only results of environmental testing would be to confirm that *C. botulinum*, if isolated, is present in the environment. As Istre et al. indicated, there are probably several environmental factors that aid in the ingestion of *C. botulinum*; however, until the technology and knowledge advances, we cannot determine what those factors may be (reference 16).

(5) The ASTDR does list Fort Meade on the National Priorities List, but their report indicates that the waste sites are far from the current location of the cases. Moreover, while prior dumping sites for waste and dead carcasses are theorized to be viable sources for *C. botulinum*, there has been no evidence to support this.

(6) After review of all the research and data, it is clear that there are numerous modes of ingestion of *C. botulinum* by infants that are not well demonstrated in the literature. The EPICON team cannot find a link between the two cases at Fort Meade other than geographic proximity. The most likely source of infection was airborne dust particles that directly entered, or were carried into, the mouths of these infants. Based on prior work by experts investigating pairs or clusters of intestinal botulism cases, there is no sampling technique that has proven useful for narrowing down reservoirs of soil where the specific, infecting spores originate. Much needs to be learned about the epidemiology of infant botulism, and the EPICON team reached out to the leading scientists in this field. Possible collaborations for long-term environmental and laboratory research projects were discussed, as each discovered cluster of infections affords a possible opportunity to better elucidate non-foodborne modes of *C. botulinum* transmission.

b. Risk Communication.

(1) According to the National Research Council, risk communication is defined as “an interactive process of exchange of information and opinion among individuals, groups, and institutions” (reference 30). The interactive element of risk communication, along with clear messages, is necessary in order for both experts and nonexperts to develop a mutual understanding of interests, values and concerns that go far beyond one-way information sharing.

(2) While treatable, infant botulism can cause significant anxiety and panic not only for the affected families but also within the local population because it—

(a) Afflicts only very young helpless children (typically less than 1 year old).

(b) Occurs in an apparently random fashion without a means to predict or prevent exposure.
EPICON No. 13-HG-06TU-07, Fort Meade MD, Jan 07

(c) Has no discernible cause due to its ubiquitous nature in the environment.

(d) Elicits dread and fear just by its very name, “botulism.”

(3) When community concerns and media interest are high, risk communication efforts are critical in the overall response. Aggressive health information efforts (that is, fact sheets, press releases, etc.) are needed to increase awareness of the disease, its symptoms, and response actions. At the same time, technical knowledge is not always the dominant influence when concerns are high (and trust is low or unknown). Dialogue opportunities with experts and healthcare providers are important to answer questions and discuss lingering concerns.

8. LIMITATIONS.

a. The consultation is limited by several factors. The first is that there was a very small number of cases (n=2). Thus, neither a case-control study nor a cohort study was feasible. Secondly, the classification of *Clostridium botulinum* as a select agent limits laboratory options due to special facility requirements and handling restrictions. In addition, several laboratories were contacted about conducting subtyping for the two specimens and, after much internal discussion, the botulism laboratory at CDC agreed to take the samples but with the stipulation that the results would only benefit future knowledge of the organism and would not be valid for this investigation.

b. The lack of a central source for identifying and tracking mortality among dependents of active-duty service members within the DOD is also problematic. Although establishment of centralized databases to monitor unexplained child deaths was formally recommended by the American Academy of Pediatrics in 1999, actions have not been undertaken within the DOD to allow this capability. Creation of a mortality registry for dependents would allow determination of baseline mortality risk from all causes, thereby enabling the study of epidemiological patterns of these deaths and focused prevention strategies to reduce the incidence of death in the spouses and children of service members. The OAFME/AFIP submitted a proposal for this type of surveillance (appendix D), but it has not received funding.

c. By including all hospitalizations and outpatient encounters, DOD surveillance systems have the potential to permit calculating incidence more completely than reportable disease mechanisms, since some underreporting is typical of passive surveillance in both civilian and military sectors. Currently, however, the results codes vary across laboratories—and many botulism-related tests, in particular, are outsourced—making analysis complex and unreliable. Therefore, comparison of rates among DOD beneficiaries to national rates may either underestimate or overestimate actual differences.
9. RECOMMENDATIONS.

a. The EPICON team recommends that—

(1) Military Health System providers throughout the NCR continue to be made aware of the two cases at Fort Meade in order to reinforce the need to seriously consider botulism in the differential diagnosis when evaluating infants with paralytic signs or significant constipation, and when SIDS cases are encountered.

(2) The NCR providers and clinic staff receive a message reinforcing the need to communicate reportable medical events to both civilian public health and military preventive medicine authorities.

(3) The NCR beneficiaries who are parents of newborns and infants be informed about intestinal botulism as part of child health education.

(4) Referral centers like WRAMC be encouraged to engage preventive medicine personnel (both its own and those of pertinent installations) early in the course of such events.

(4) Army epidemiologists enhance surveillance for botulism cases and other RMEs.

(5) DOD establish a registry of dependent fatalities through the OAFME (appendix D).

(6) Access to laboratory results by AMSA (future Armed Forces Health Surveillance Center) be improved to enhance ongoing surveillance activities.

(7) NCR beneficiary parents of newborns and infants be informed about intestinal botulism as part of child health education.

(8) Construction contracts serving Fort Meade and other installations require control measures to minimize dispersion of fugitive dust (reference 31).

b. Although public interest is not as elevated as it was initially, some questions do linger within the community. Therefore, risk communication efforts should continue on a scaled-down basis. Monitoring of media coverage should continue, and the installation commander should remain prepared to respond to community rumors, misunderstandings and misperceptions in a timely manner.

c. Because new information regarding infant botulism and this investigation is limited, it is recommended that the conclusions of the EPICON be released in order to meet community expectations. While education of the community was a key component of the risk
communication process, particularly during the initial response phase, this interactive component of risk communication is still crucial and should be continued to—

(1) Gauge how widespread concerns may be.

(2) Obtain empirical data from the community regarding how they view the command’s response.

(3) Identify any lingering misperceptions or misunderstandings about this issue and verify that risk communication education efforts were effective.

(4) Identify the most preferred communication venues.

(5) Identify the most trusted sources of information on this issue.

(6) Further demonstrate the command’s commitment to community well-being.

10. POINT OF CONTACT. Direct inquiries regarding this report to MAJ [redacted], Directorate of Epidemiology and Disease Surveillance, at commercial (410) [redacted] DSN [redacted] or email to [redacted]@us.army.mil.

MAJ, MS
Program Manager, Disease Epidemiology

Approved:

COL, MC
Director, Epidemiology and Disease Surveillance
APPENDIX A
REFERENCES

Literature Cited


Other Publications

A-3


Centers for Disease Control and Prevention Form 52.73, Guide to Investigation of Infant Botulism

APPENDIX B

CLOSTRIDIUM BOTULINUM QUESTIONNAIRE USED FOR INVESTIGATION
Hypothesis Generating Questionnaire (Infant Botulism)

(Modified January 2007 from a questionnaire from the New York City Department of Health and Mental Hygiene and CDC Form 52.73, Guide to Investigation of Infant Botulism)

Initials of interviewer ______

Date form completed: ___/___/___

DEMOGRAPHIC INFORMATION OF THE CASE

Parent's last name: ____________________________ Parent's first name: ____________________________

Infant's last name: ____________________________ Infant's first name: ____________________________

Home address: ____________________________

Phone: (___) _______

Sex: □ Male □ Female

Race/Ethnicity: □ White, not Hispanic □ Black, not Hispanic □ Hispanic □ Asian or Pacific Islander □ American Indian or Alaska native □ Unknown

Mother's Age: ____________________________

Mother's Occupation: ____________________________

Father's Age: ____________________________

Father's Occupation: ____________________________

Number of Pregnancies: ____________________________

Number of Live Births: ____________________________

Type of Delivery (cases only): □ Vaginal □ C-Section

Complications: □ Yes □ No □ Unknown If yes, please explain: ____________________________

Was infant premature? □ Yes □ No □ Unknown If yes, gestational age (weeks) ______

What was infant's birth weight ______

1. Where was your child born? □ Hospital □ Other ____________________________

Hospital Name: ____________________________

Age at discharge from hospitals? ______

Was your child premature? □ Yes □ No □ DK

2. Where do you usually take your child for medical problems or for well baby visits?

□ Pediatrician □ Family/gen practitioner □ Nurse practitioner or PA □ ER □ Other (Please specify ____________________________ )
3. Before your child’s illness from botulism began, did he/she see a physician for any other medical problems (not including well-child visits or visits for immunizations)?  □ Yes □ No □ DK

4. Did your child receive antibiotics in the month prior to illness onset? □ Yes □ No □ DK

5. What was your infant’s usual bowel movement pattern during the following months of life?

<table>
<thead>
<tr>
<th>Month</th>
<th>≥ 1 BM/day</th>
<th>1 &gt; BM ≤ 3/day</th>
<th>&lt; 1/3 days</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When we first interviewed you about your child’s illness, you reported that he/she first appeared sick on ___/___/___ (onset date). Is this the correct date?  □ Yes □ No □ DK

I. Food/Liquid Exposures

6. Prior to your child’s illness on ___/___/___ (onset date), was your child being breast-fed?
   □ Yes □ No □ DK
   If yes, how many times per day do you breast feed? ______

7. Prior to your child’s illness on ___/___/___ (onset date), was your child being bottle fed?
   □ Yes □ No □ DK
   Do you use expressed breast milk to bottle feed? □ Yes □ No □ DK
   Do you use formula to bottle feed? □ Yes □ No □ DK
   Which formula did you primarily use? ___________________________
   Please specify other brands of formula that you used. (List all brands used)
   ___________________________
   ___________________________
   ___________________________

What type of formula do you usually use? Did you use...

a. Liquid (ready to serve) □ Yes □ No □ DK
b. Liquid (conc. add water) □ Yes □ No □ DK
c. Powdered □ Yes □ No □ DK

Who usually prepared the formula?
Name: ________________________
Relationship to the child: ________________________

If water was used, what was the source of the water? ________________________

If tap water, was it boiled or filtered?  □ Yes □ No □ DK

How many bottle feedings per day? ______

8. Prior to your child’s illness, did he/she eat any baby cereal?  □ Yes □ No □ DK
   Please specify type and brand (rice, oatmeal, etc.). ________________________

9. Did your child eat jars, bottles, or cans of baby food?  □ Yes □ No □ DK
   Please specify type and brand ________________________

10. Did your child eat any baby food that was prepared at home?  □ Yes □ No □ DK
    Please specify how it was prepared ________________________

11. Did your child eat any home-canned foods?  □ Yes □ No □ DK

12. Did anyone in your family eat any home-canned foods?  □ Yes □ No □ DK

13. Did your child drink any regular cow’s milk (pasteurized)?  □ Yes □ No □ DK

14. Did your child drink any unpasteurized milk?  □ Yes □ No □ DK

15. Did your child eat or drink any honey?  □ Yes □ No □ DK

16. Did your child eat any corn syrup?  □ Yes □ No □ DK

17. Did your child drink any sugar/water?  □ Yes □ No □ DK

18. Did your child drink any fruit juices?  □ Yes □ No □ DK

19. Did your child drink any unpasteurized fruit juices?  □ Yes □ No □ DK

20. Did your child eat any meats?  □ Yes □ No □ DK

21. Did your child eat any fish?  □ Yes □ No □ DK

22. Did your child drink tea?  □ Yes □ No □ DK
Was it sweetened?  □ Yes  □ No  □ DK

23. Did your child receive any supplemental vitamins in the month before the illness began?
   □ Yes  □ No  □ DK
   If yes, please specify_____________________________________________________
   Did they contain iron?  □ Yes  □ No  □ DK

24. Did your child eat any fresh produce (fruits or vegetables) that were organically grown?
   □ Yes  □ No  □ DK
   If yes, please specify which fruits and vegetables were organically grown_____________________________________________________

25. Does anyone in your family eat any fresh produce (fruits or vegetables) that is organically grown?
   □ Yes  □ No  □ DK
   If yes, please specify which fruits and vegetables were organically grown_____________________________________________________

26. Do you shop at any Farmer's Markets?  □ Yes  □ No  □ DK
   If yes, please specify._____________________________________________________

27. Where do you shop for groceries?____________________________________________

28. Where do you shop for baby food and other baby items?________________________

II. Environmental exposures
29. Was there any of the following during the month before your child's onset near your home:
   □ construction  (e.g. new home or other building)
   □ excessive dust  (e.g. sewers, new foundations)
   □ excavation
   □ new road construction
   □ plowing of fields
EPICON No. 13-HG-06TU-07, Fort Meade MD, Jan 06

☐ environmental change (e.g. remodeling of your home, landscaping)
If yes, describe

30. Was there any of the following during the month before your child’s onset at other sites where your child has been:
☐ construction (e.g. new home or other building)
☐ excessive dust (e.g. sewers, new foundations)
☐ excavation
☐ new road construction
☐ plowing of fields
☐ environmental change (e.g. remodeling of your home, landscaping)
If yes, describe

31. Did your child or anyone else in your family play in a sandbox prior to illness?
☐ Yes ☐ No ☐ DK
If so, where? (list)

32. How often is the furniture in your house dusted?
☐ more than once per week
☐ once a week
☐ less than once per week but at least every two weeks
☐ less than every two weeks
☐ other (please specify)
☐ unknown/refused

33. Do you have any carpets or area rugs covering the floor in your house? ☐ Yes ☐ No ☐ DK
If yes, are they
☐ wall to wall carpets
☐ area rugs
☐ both wall to wall and area rugs
What is the pile of wall to wall carpeting, (low, med, or shag)?

34. How often are your floors and carpets vacuumed?
☐ more than once per week
☐ once a week
☐ less than once per week but at least every two weeks
☐ less than every two weeks
35. What type of heating system do you have in your home?
- forced air (e.g., gas, oil, electric)
- steam heat (radiators)
- circulating hot water (e.g., solar, oil, gas)
- electric
- other (please specify)

36. Does your home have air conditioning?  
- Yes  
- No  
- DK  
If yes, please specify if individual room unit or central air conditioning

37. Do you have any electric air cleaner in your home?  
- Yes  
- No  
- DK  
If yes, please specify if central or portable

38. Were you or anyone in your household or family involved in gardening or yard work prior to your child's illness onset?  
- Yes  
- No  
- DK  
If yes, please specify flower or vegetable.  
How often do you or household/family member garden?
Which months of the year do you garden?

39. Do you have any plants inside your house?  
If yes, are they (check all that apply)  
- located on or within 1 foot of the floor  
- located on tables  
- hanging from the ceiling  
Are there any plants in the baby's room?  
- Yes  
- No  
- DK  

40. Do you take your child for walks outside?  
- Yes  
- No  
- DK  
Where do you usually go for walks?  
Do you go to any nearby parks?  
If yes, please specify
41. Does your child play or lie on the ground outside?  □ Yes  □ No  □ DK
   Please specify in backyard, park, etc.

42. Are you a member of any social or religious organizations?  □ Yes  □ No  □ DK
   If yes, please specify
   Did you take your child to any events?  □ Yes  □ No  □ DK
   Was your child at an associated daycare during any of these events?
   If yes, where/when?

43. Is your child in school/daycare or does he/she participate in any other group activities?
   □ Yes  □ No  □ DK
   If yes, please provide names and locations
   Describe "other group activities"

44. Did your child travel outside of Ft. Meade at all prior to his/her illness?  □ Yes  □ No  □ DK
   If yes, please specify where?

45. Did your child travel outside of Maryland prior to his/her illness?  □ Yes  □ No  □ DK
   If yes, please specify location, length of stay, and nature of visit

46. Did you visit a live poultry or meat market?  □ Yes  □ No  □ DK
   If yes, did you purchase any poultry or meat?
   Specify type of meat purchased:
   Name of market:
   Address of market:
   Did you take your child to the live market?  □ Yes  □ No  □ DK

47. Did you take your child to any large gatherings prior to illness (wedding reception, parties, festivals,
fairs, religious gatherings, etc.)  □ Yes  □ No  □ DK
   If yes, please specify

48. Did your child swim/wade/splash in an ocean, lake, river, pool, or recreational water park in the
before his/her illness onset?  □ Yes  □ No  □ DK
   If yes, please specify

49. Did your child come into contact with any animals in the prior to illness?  □ Yes  □ No  □ DK
If yes, what kind of animals? __________________________________________

When? ___________________________ Where? ___________________________

50. Where did you buy/obtain your baby's crib? __________________________

Was the crib used or new?        □ Yes □ No □ DK
Was the mattress used or new?    □ Yes □ No □ DK

51. Does your child share toys with anyone? □ Yes □ No □ DK

If yes, please specify______________________________

52. How often do you sterilize bottles before using them? □ Always □ Sometimes □ Never

53. How often do you sterilize nipples before using them? □ Always □ Sometimes □ Never

54. Does your child use a pacifier? □ Yes □ No □ DK

Where were pacifiers purchased?
How often do you clean the pacifier? __________________________

If the pacifier falls on the floor:
How often do you clean with water? □ Always □ Sometimes □ Never
How often do you clean with soap? □ Always □ Sometimes □ Never
How often do you sterilize? □ Always □ Sometimes □ Never

55. Who is your child's pediatrician?

Pediatrician's name: __________________________
Clinic name: __________________________
Address: __________________________
Phone number: ( ) ___________

56. Do you know anyone other infants who have had a similar illness as your child's?

□ Yes □ No □ DK

If yes, please specify __________________________________________

Additional comments __________________________________________

Thank you very much for your time.
APPENDIX C

RISK COMMUNICATION PRODUCTS AND MEDIA RELEASES FOR BOTULISM INVESTIGATION

C-1
FORT GEORGE G. MEADE
NEWS RELEASE
PUBLIC AFFAIRS OFFICE
4550 PARADE FIELD LANE
FORT MEADE, MD 20755
www.ftmeade.army.mil

Jan. 10, 2006

FOR IMMEDIATE RELEASE

Infant Botulism Found in Two Children
at Fort Meade

FORT GEORGE G. MEADE, Md., - Since October 2006, Walter Reed Army Medical Center (WRAMC) has identified two cases of infant botulism involving residents of Fort Meade. One infant has recovered while the other infant is being treated by doctors at WRAMC. Both children were under six months of age at the time of diagnosis.

The cause is currently under investigation by the Preventive Medicine Services on Kimbrough Ambulatory Care Center (KACC).

"Infant botulism is a treatable condition associated with the ingestion of clostridium botulinum bacteria found naturally in soils and in some contaminated food products. It would be premature to speculate about a particular source because we are still trying to conduct our investigation," said ______ Preventive Medicine at KACC, Lt. Col.

Infant Botulism is rare and usually affects infants under six of age.

Symptoms may include constipation, listlessness, difficulty swallowing, a weak cry and a loss of appetite. If parents are concerned, they should contact their health care provider.

Health care professionals recommend that parents of infants wash their hands frequently, clean toys and pacifiers in a weak bleach solution, and thoroughly boil water used to prepare baby formula. These are not foolproof measures for preventing botulism infection, but they afford some protection against the most common avenues of transmission.

(more)
Infant Botulism Found in Two children at Fort Meade

“Our primary concern is always the health and welfare of the members of our community. We will work closely with health officials and will keep the community informed of any new information as it comes available. The Army is committed to providing the safest living and working environment for its people,” said Col. [REDACTED], installation commander.

-30-

EDITOR’S NOTE: For more information contact [REDACTED]
Walter Reed Army Medical Center has identified two cases of infant botulism at Fort Meade since Oct. 2006. One infant has recovered while the other infant is being treated by doctors at Walter Reed Army Medical Center. The infants, both under the age of 6 months at the time of diagnosis, were treated at Walter Reed Army Medical Center. The cause is currently under investigation by the Preventive Medicine Services at Kimbrough Ambulatory Care Center on Fort Meade.

LTC (Dr) Preventive Medicine at Kimbrough Ambulatory Care Center said, “while the name of the disease can be frightening, infant botulism is a treatable condition associated with swallowing the botulinum bacteria found naturally in soils and in some contaminated food products. It is premature to speculate about a particular source until the investigation is complete.” Cases of Infant Botulism are rare and usually occur among infants less than 6 months of age.

**What are the symptoms of Infant Botulism?**

Any or all of the following:
- constipation
- poor feeding and a weak suck
- weak cry
- loss of head control
- difficulty swallowing
- excessive drooling
- floppy appearance or “floppy baby”
- generalized weakness
- breathing difficulties

**What do you do if your infant is experiencing these symptoms?**

Call (301) 677-8606 or go to the nearest Emergency Room
- Howard County General Hospital 5755 Cedar Lane, Columbia, Maryland (410) 740-7890 or 7990
- Laurel Regional Hospital 7300 Van Dusen Road, Laurel, Maryland (301) 725-4300 or (410) 792-2270
- Baltimore Washington Medical Center, 301 Hospital Drive, Glen Burnie, Maryland (410) 787-4000

**How is Infant Botulism treated?**

Prompt diagnosis is essential. Medication is available to treat the condition.

**How can I reduce the risk of contracting Infant Botulism?**

- Wash hands frequently
- Avoid giving honey to infants less than 1 year of age
- Routine and frequent cleaning of toys-- particularly items that babies place in their mouths and those toys which have fallen on the ground or floor
- Through proper preparation of foods (boiling and cooking)
- Avoid cans of food/formula with dents or that are bulging or rusting
- Avoid locations with excessive dust and debris

For further information about the disease, contact Kimbrough Ambulatory Care Clinic, Preventive Medicine Services (301) 677-8661. If you have other questions or are contacted by the media please refer them to the Fort Meade Public Affairs Office at (301) 677-1436 or 1486.
EPICON No. 13-HG-06TU-07, Fort Meade MD, Jan 06

EPIDEMIOLOGICAL CONSULTATION TEAM AND ITS MISSION AT FORT MEADE
16 Jan 07

BACKGROUND:
In response to lingering concerns about the two cases of infant botulism at Fort Meade, an epidemiological consultation (EPICON) team was requested to assist the medical community here at Fort Meade in its investigation. The EPICON team arrived at Fort Meade on Friday January 12th to begin its mission to investigate the occurrence of these cases. This fact sheet provides some background information about the team and its mission.

What is an EPICON team?
Epidemiology is the science devoted to investigating how population factors and the environment influence the occurrence of diseases or injuries. The team then applies this science to find possible causes, risk factors and opportunities for prevention.

Who is on the EPICON team? Where are they from? What are their specialties?
The EPICON team members are from the U.S. Army Center for Health Promotion and Preventive Medicine, part of the Army's Medical Command, who specializes in preventive medicine, environmental health, epidemiology, and communication about health matters when public concerns are high. In conducting this study the team is collaborating with a physician-epidemiologist from Anne Arundel County's public health department, the Kimbrough preventive medicine staff, the Centers for Disease Control and Prevention (CDC) and the California state health department.

Why is the EPICON team here?
The team was called by the Kimbrough Ambulatory Acute Care Hospital and Garrison Commanders because they believed someone from outside Fort Meade was needed to review the situation and provide advice while allowing Kimbrough to continue their important clinical and preventive medicine mission without disruption.

What methods is the team using to try and find answers?
The team is working to determine if there is any connection between the two cases of infant botulism. The team has interviewed the affected families to identify products used, places visited, possible common exposure, etc. They are reviewing clinical test results on the affected children during their illness, and will review more detailed analysis currently being done at a Maryland state laboratory which will identify the specific subtype of botulism bacteria. Team members are also looking at disease surveillance reports and other data to see if the Fort Meade community or Anne Arundel County has experienced similar cases.

Will environmental sampling be done?
It's certainly understandable why finding the cause is so important to families with young children. Focused environmental sampling in specific areas may be conducted for purely scientific reasons, such as to determine where the bacteria might be present. But random sampling throughout a wide area is unlikely to provide a definite link to the two Fort Meade
cases or help direct future preventive measures, or provide a definite link to one or a few specific areas of contaminated objects or soil. This is because the botulism-causing bacteria are widely distributed in many environments around the world.

**How long will the team’s investigation take?**
The results of the subtyping of the bacteria from the affected infants are expected to be completed on or about January 20th. This information is critical in answering the question, “Are the two cases connected?” However, the team’s mission will not end there. The EPICON team will continue to conduct a thorough review of the local surveillance data and existing scientific literature; and continue to collaborate with the Fort Meade medical authorities, the Fort Meade garrison, as well as with Anne Arundel County and CDC partners before finalizing its report. The team anticipates delivering a report to the Garrison Commander by the end of February.

**Where can I learn more about infant botulism?**

National Institutes of Health:

Infant Botulism:

Botulism:

Mayo Clinic Infant Botulism and Honey:
http://www.mayoclinic.com/health/infant-botulism/H000854

California Department of Health Services:
http://www.infantbotulism.org/
EPICON No. 13-HG-06TU-07, Fort Meade MD, Jan 06

EPIDEMIOLOGICAL CONSULTATION TEAM AND ITS MISSION AT FORT MEADE
23 Jan 07

BACKGROUND:
In response to lingering concerns about the two cases of infant botulism at Fort Meade, an epidemiological consultation (EPICON) team was requested to assist the medical community here at Fort Meade in its investigation. The EPICON team arrived at Fort Meade on Friday January 12th to begin its mission to investigate the occurrence of these cases. This fact sheet provides some background information about the team and its mission.

What is an EPICON team?
Epidemiology is the science devoted to investigating how population factors and the environment influence the occurrence of diseases or injuries. The team then applies this science to find possible causes, risk factors and opportunities for prevention.

Who is on the EPICON team? Where are they from? What are their specialties?
The EPICON team members are from the U.S. Army Center for Health Promotion and Preventive Medicine, part of the Army’s Medical Command, who specializes in preventive medicine, environmental health, epidemiology, and communication about health matters when public concerns are high. In conducting this study the team is collaborating with a physician-epidemiologist from Anne Arundel County’s public health department, the Kimbrough preventive medicine staff, the Centers for Disease Control and Prevention (CDC) and the California state health department.

Why is the EPICON team here?
The team was called by the Kimbrough Ambulatory Acute Care Hospital and Garrison Commanders because they believed someone from outside Fort Meade was needed to review the situation and provide advice while allowing Kimbrough to continue their important clinical and preventive medicine mission without disruption.

What methods is the team using to try and find answers?
The team is working to determine if there is any connection between the two cases of infant botulism. The team has interviewed the affected families to identify products used, places visited, possible common exposure, etc. They are reviewing clinical test results on the affected children during their illness, and will review more detailed analysis currently being done at a Maryland state laboratory which will identify the specific subtype of botulism bacteria. Team members are also looking at disease surveillance reports and other data to see if the Fort Meade community or Anne Arundel County has experienced similar cases.

Will environmental sampling be done?
It’s certainly understandable why finding the cause is so important to families with young children. Focused environmental sampling in specific areas may be conducted for purely scientific reasons, such as to determine where the bacteria might be present. But random sampling throughout a wide area is unlikely to provide a definite link to the two Fort Meade.
cases or help direct future preventive measures, or provide a definite link to one or a few specific areas of contaminated objects or soil. This is because the botulism-causing bacteria are widely distributed in many environments around the world.

How long will the team’s investigation take?
The results of the subtyping of the bacteria from the affected infants are expected to be completed on or about January 20th. This information is critical in answering the question, “Are the two cases connected?” However, the team’s mission will not end there. The EPICON team will continue to conduct a thorough review of the local surveillance data and existing scientific literature; and continue to collaborate with the Fort Meade medical authorities, the Fort Meade garrison, as well as with Anne Arundel County and CDC partners before finalizing its report. The team anticipates delivering a report to the Garrison Commander by the end of February.

Where can I learn more about infant botulism and/or the EPICON team?

Fort Meade web page:

USACHPPM and the EPICON team:
Public Affairs Office: 410-436-2088

National Institutes of Health:
   Infant Botulism:
   Botulism:

Mayo Clinic Infant Botulism and Honey:
http://www.mayoclinic.com/health/infant-botulism/HO00854

California Department of Health Services:
http://www.infantbotulism.org/
FOR IMMEDIATE RELEASE

Infant botulism investigation update

FORT GEORGE G. MEADE, MD., -- Maryland health officials have confirmed the presence of Type B Clostridium botulinum bacteria from both cases of infant botulism recently diagnosed at Fort Meade. This confirmation was expected as this type of botulism strain is typically found on the East Coast.

The first case of infant botulism was diagnosed in October 2006 and the second in December 2006. Both children have since been treated and are recovering. The children live on Oliver Court at Fort Meade.

The Maryland Department of Health and Mental Hygiene (DHMH) have contacted the Center for Disease Control and Prevention in Atlanta, Ga., to determine if they are willing to do subtyping of the bacteria.

Investigators continue to discuss and coordinate with DHMH, CDC, Fort Meade medical authorities and other experts as they work towards completing the investigation.

In addition, the Army's Medical Surveillance Activity (AMSA) is also working on a retrospective analysis of botulism cases from 1996-2005 for publication in their Medical Surveillance Monthly Report (MSMR) article. These reports are available online at http://amsa.army.mil/AMSA/amsa_home.htm.

-30-

EDITOR'S NOTE: For more information please contact.
APPENDIX D

ARMED FORCES INSTITUTE OF PATHOLOGY (AFIP) PROPOSAL TO FUND DEVELOPMENT OF A DEPENDENT MORTALITY DATABASE
Dependent Mortality Database

Proposed: The goal of this paper is to explore the feasibility of establishing a registry of dependent fatalities, to include exploration of methodologies.

Background: Currently, there is no central source for identifying and tracking mortality amongst the dependents of active duty servicemembers. It is widely believed that domestic abuse is more prevalent in military families than in their civilian counterparts, and numerous programs have been established to mitigate the perceived increased risk of domestic violence in servicemember’s families. Establishing a registry of deaths in dependents will allow for the determination of baseline mortality risk from all causes, to include more accurate tracking of domestic violence related deaths. Other potential research areas that could be explored using this registry include reviews of specific types of accidents, SIDS, cancer and infectious disease mortality. By studying the epidemiological patterns of these deaths, focused prevention strategies can be developed to reduce the incidence of death in the spouses and children of servicemembers. Furthermore, establishment of centralized databases to monitor unexplained child deaths was formally recommended by the American Academy of Pediatrics in 1999 (Kairys SW, Alexander RC, Block RW, et al. American Academy of Pediatrics. Committee on Child Abuse and Neglect and Committee on Community Health Services. Investigation and review of unexpected infant and child deaths. Pediatrics 1999; 104:1158-60).

Data Sources and Methodology: The existing DOD-Medical Mortality Registry is an active surveillance system designed to provide real-time outbreak information to decision-makers (Gardner JW, Cozzini CB, Kelley PW, et al. The Department of Defense Medical Mortality Registry. Mil Med. Jul 2000;165(7 Suppl 2):57-61.). An investigation is triggered by receiving current information from each of the Service-Specific Casualty Offices. There would be value in actively monitoring child deaths for infectious agents, as children are often sentinels for outbreaks. An example occurred last year during the influenza outbreak that was particularly noted for causing child fatalities. However, because the Casualty Offices only track and report dependent deaths that occur overseas, real time surveillance of dependent fatalities is not achievable at this time. An alternative approach is to establish a Registry consisting primarily of death certificate data, obtained from National Death Index (NDI) searches. For the purposes of monitoring homicides, this basic level data would provide demographics and a basis for comparison with civilian homicide rates. It would also provide an estimate for the completeness of capture of the established Fatality Review Boards. The two major limitations of this approach are lag time, which averages approximately three years, and incomplete information.

Budget: The costs of establishing a Death Certificate based registry as part of the Armed Forces Medical System are approximately 350K per year, which would support an epidemiologist to collect and analyze the data, and the direct costs of the NDI searches. If real time investigative surveillance is desired, a mechanism for rapidly identifying dependent fatalities would have to be established. Costs from the Armed Forces Medical Examiner System would increase to approximately 450K per year.
APPENDIX E

TEAM MEMBERS AND CONSULTANTS
EPICON Team

COL, Directorate of Epidemiology and Disease Surveillance, USACHPPM
MAJ, Disease Epidemiology Program, USACHPPM
Lt. Colonel, LMI
Ms., Disease Epidemiology Program, USACHPPM
Ms., Risk Communication Program, USACHPPM
LTC, Army Medical Surveillance Activity

Civilian Public Health Team Partners

Dr. Kelly Russo, Anne Arundel County Public Health Department
Dr. David Blythe, Maryland Department of Health and Mental Hygiene

External Public Health Consultants

Dr. Julie Kiehlbauch, Maryland Dept. of Health and Mental Hygiene Microbiology Laboratory
Dr. Susan Maslanka, Centers for Disease Control and Prevention
Dr. Steven Arnon, California Department of Health Services

Ms. Asha Riegodios, Navy Environmental Health Center

External Affairs Consultants

USACHPPM Public Affairs Office
Fort Meade Public Affairs Office
Response to Query:

The family told Fort Meade officials late yesterday that their infant son was hospitalized in October for "Botulism." The family says the child has since recovered.

The Preventative Medicine Office at Kimbrough and Fort Meade Officials are investigating the situation.

Response to Query about the second case:

We are not aware of any additional cases at this time. But we are always concerned about all service members and their families' health issues.
Centers for Disease Control (CDC) called and informed her that a 2nd case has been confirmed on Fort Meade today.

was the Pediatrics doctor.

The family said the CDC investigator implied that a debris pile located on the corner of Clark Road may be the source of the airborne Botulism.

confirmed that there were complaints of a dust cloud in the Area and Picerne Military Housing agreed to water the area down. The debris pile consists of crushed concrete.

Potential issues are yet to be investigated:

We have a meeting with the commander at 8:00 in the morning in his office.
Will keep everyone notified.

(CBS- Channel 9 WUSA may pick up the story. Fort Meade PAO was notified by DINFOS PAO that the wife of the family wanted to have them at her house last night. But Fort Meade PAO informed the family that all media coming to the installation must be escorted by our office.)
Corrections have been made. I attached it as a Word Document. Let me know if you have any questions.

On Jan 10, 2007, at 10:46 AM, sd4330@aim.com wrote:

Please review make changes and return ASAP.

Thanks

LTC
INFANT BOTULISM FACT SHEET

There are approximately 100 cases of botulism reported annually in the United States. Approximately 95% of these cases are infant botulism and occurs in babies 6 month-old and younger. Infant botulism affects boys and girls equally.

The bacteria (Clostridium botulinum) that cause infant botulism are transmitted by spores which germinate and produce toxins in the intestines of the infant. It is not spread from person to person. A toddler cannot contract infant botulism because the Clostridium bacteria does not grow in the intestines of older children.

The risk factors and vehicles of transmission can either be environmental or through ingestion. However, the transmission remains unclear in most cases. The most common routes of transmission to infants are food and dust. Honey is also a source and should not be fed to infants less than 1 year of age.

What are the symptoms of Infant Botulism?
- constipation
- poor feeding and a weak suck
- weak cry
- loss of head control
- difficulty swallowing and pooling of secretions
- floppy appearance or "floppy baby"
- generalized weakness
- breathing difficulties only in about half of the cases

How is Infant Botulism diagnosed?
Stool specimen and testing of possible found source.

How is Infant Botulism treated?
Prompt diagnosis and treatment is key!
FDA approved - BabyBIG - it binds to any free toxin in the body and prevents further damage. Only available through the California Health Department at a cost of approximately $45,000 per treatment. Relative low cost compared to long-term hospitalization of untreated infant; Expect complete recovery although the recovery is gradual -- usually weeks to 2 months with treatment and several months without treatment.

How can I prevent Infant Botulism?
- Handwashing
- No honey to infants less than 1 year of age
- Toy cleaning and particularly items that babies place in their mouths
- Proper preparation of foods (boiling and cooking) spores are destroyed by boiling
- Proper preparation of canned foods (home preserved or canned foods)
- Avoid cans of food/formula with dents, bulging or rusting
- Avoid construction sites with soil and dust

For further information contact Kimbrough Ambulatory Care Clinic Preventive Medicine Services (301) 677-8661.
Colonel wanted me to check with you on his statement before we completed it.
Also I haven't heard from Colonel on her statement. Can you check it for me and get me any edits back.

We haven't had any calls yet but that doesn't mean we won't have any.

This release will only be sent out for query only.

Thanks.

Check my editing with LTC and make sure I'm accurate.

Here is the release. Make changes and send back your comments. Thanks.
FOR IMMEDIATE RELEASE

Infant Botulism Found in Two Children at Fort Meade

FORT GEORGE G. MEADE, Md., - Walter Reed Army Medical Center has identified two cases of infant botulism at Fort Meade since Oct. 2006. One infant has recovered while the other infant is being treated by doctors at Walter Reed Army Medical Center.

The cause is currently under investigation by the Preventive Medicine Services at Kimbrough Ambulatory Care Center on Fort Meade.

Col. , Commander of Kimbrough Ambulatory Care Center said, "Botulism spores are found naturally in the soil. It is also caused by improperly canned and processed foods. It would be speculative to identify a source because we are still working to determine the specific cause."

There are approximately 100 cases of botulism reported annually in the U.S. Approximately 75% of these are infant botulism. It normally affects infants less than 6 months of age, boys and girls equally. Symptoms may include constipation, listlessness, difficulty swallowing a weak cry, and a loss of appetite (not sucking well). If parents are concerned, they should contact their health care provider.

Health care professionals recommend that parents of infants wash their hands frequently, clean toys and pacifiers in a weak bleach solution, and thoroughly boil water used to prepare baby formula. These are not foolproof measures for preventing botulism infection, they afford some protection against the most common avenues of transmission.

Installation Commander. "Our primary concern is always the health
and welfare of the members of our community. We will work closely with health officials to investigate the causes of this outbreak and take all possible preventative measures. I ask the public to remain calm and avoid spreading rumors or gossip. We will keep the community informed of what we learn and the steps they might take to offer a measure of protection against infection.

-30-

EDITOR'S NOTE: For more information contact [redacted], at [redacted] or [redacted] at (301) [redacted]
Can you also get with [REDACTED] The commander wanted her to check his additions to the press release. Or is Colonel Cummings doing that?

-----Original Message-----
From: [REDACTED] [mailto:medd.army.mil]
Sent: Wednesday, January 10, 2007 1:48 PM
To: 
Subject: RE: NR_Botulism.doc

COL Cummings is replying to you as I type this. Please send me the finished product so that I can forward it to WRAMC and MEDCOM.

-----Original Message-----
From: [REDACTED] [mailto:jms.army.mil]
Sent: Wednesday, January 10, 2007 1:13 PM
To: LTC KACC-Ft Meade; [REDACTED]
Cc: 
Subject: FW: NR_Botulism.doc

Colonel wanted me to check with you on his statement before we completed it. Also [REDACTED]. Haven't heard from Colonel [REDACTED] on her statement. Can you check it for me and get me any edits back.

We haven't had any calls yet but that doesn't mean we won't have any.

This release will only be sent out for Query only.

Thanks.

-----
From: [REDACTED] - COL
Sent: Wednesday, January 10, 2007 12:39 PM
To: 
Subject: RE: NR_Botulism.doc

Check my editing with LTC [REDACTED] and make sure I'm accurate.
Infant Botulism Found in Two Children at Fort Meade

FORT GEORGE G. MEADE, Md., - Walter Reed Army Medical Center has identified two cases of infant botulism at Fort Meade since Oct. 2006.

One infant has recovered while the other infant is being treated by doctors at Walter Reed Army Medical Center.

The cause is currently under investigation by the Preventive Medicine Services at Kimbrough Ambulatory Care Center on Fort Meade.

Col. [Redacted], Commander of Kimbrough Ambulatory Care Center said, "Botulism spores are found naturally in the soil. It is also caused by improperly canned and processed foods. It would be speculative to identify a source because we are still working to determine the specific cause."
There are approximately 100 cases of botulism reported annually in the U.S. Approximately 75% of these are infant botulism. It normally affects infants less than 6 months of age, boys and girls equally. Symptoms may include constipation, listlessness, difficulty swallowing a weak cry, and a loss of appetite (not sucking well). If parents are concerned, they should contact their health care provider.

Health care professionals recommend that parents of infants wash their hands frequently, clean toys and pacifiers in a weak bleach solution, and thoroughly boil water used to prepare baby formula. These are not foolproof measures for preventing botulism infection, they afford some protection against the most common avenues of transmission.

Col. Installation Commander. "Our primary concern is always the health and welfare of the members of our community. We will work closely with health officials to investigate the causes of this outbreak and take all possible preventative measures. I ask the public to remain calm and avoid spreading rumors or gossip. We will keep the community informed of what we learn and the steps they might take to offer a measure of protection against infection."

EDITOR'S NOTE: For more information contact at (301) or at (301)
You might consider weaving the following talking points into your RTQs:

INVESTIGATION
The incident is currently under investigation. The Army is committed to providing the safest working environment for its people. The safety of our people and the surrounding communities is our foremost concern. I can assure you we will conduct a thorough investigation in the hope something like this will never happen again.

Any speculation at this point without having all the details is not only unfair to the individual's involved, but could affect the outcome of the investigation.
Response to Query:

The family told Fort Meade officials late yesterday that their infant son was hospitalized in October for "Botulism." The family says the child has since recovered.

The Preventative Medicine Office at Kimbrough and Fort Meade Officials are investigating the situation.

Response to Query about the second case:

We are not aware of any additional cases at this time. But we are always concerned about all service members and their families' health issues.

Background Not For Release. For Internal use only:

The Centers for Disease Control (CDC) called [redacted] and informed her that a 2nd case has been confirmed on Fort Meade today.

Major [redacted] was the Pediatrics doctor.

The family said the CDC investigator implied that a debris pile located on the corner of Clark Road may be the source of the airborne Botulism.

Confirmed that there were complaints of a dust cloud in the Area and Picerne Military Housing agreed to water the area down. The debris pile consists of crushed concrete.

Potential issues are yet to be investigated:

We have a meeting with the commander at 8:00 in the morning in his office. Will keep everyone notified.

(CBS- Channel 9 WUSA may pick up the story. Fort Meade PAO was notified by DINFOS PAO that the wife of the family wanted to have them at her house last night. But Fort Meade PAO informed the family that all media coming to the installation must be escorted by our office.)

Classification: UNCLASSIFIED
Caveats: NONE
From: Ms OTSG
Sent: Wednesday, January 10, 2007 4:01 PM
To: Mr WRAMC-Wash DC; Ms WRAMC-Wash DC; Mr KACC-Ft Meade
Cc: Ms OTSG; Ms MEDCOM HQ
Subject: FW: Infant hospitalized in October (UNCLASSIFIED)

Importance: High

Classification: UNCLASSIFIED
Caveats: NONE

Please ensure you keep this office advised on this issue.

Thanks,

OTSG/MEDCOM
703-D SN

This message is confidential, intended only for the named recipient(s) and may contain information that is privileged or exempt from disclosure under applicable law. Information contained in this correspondence may be subject to the Privacy Act of 1974 (5 U.S.C. 552a). Personal information contained in this correspondence may be used only by authorized persons in the conduct of official business. Any unauthorized disclosure or misuse of personal information may result in criminal and/or civil penalties. If you are not the intended recipient of this correspondence please destroy all copies of this correspondence after notifying the sender of your receipt of it.

----- Original Message ----- 
From: [mailto: army.mil]
Sent: Tuesday, January 09, 2007 7:53 PM 
To: Mr WRAMC-Wash DC; MsWRAMC-Wash DC; Mr KACC-Ft Meade
Cc:Ms OTSG; Ms MEDCOM HQ
Subject: Infant hospitalized in OCTOBER.

EXSUM

January 9, 2007
For Official Use ONLY
Do NOT RELEASE

Response to Query:

The family told Fort Meade officials late yesterday that their infant son was hospitalized in October for "Botulism." The family says the child has since recovered.

The Preventative Medicine Office at Kimbrough and Fort Meade Officials are investigating the situation.

Response to Query about the second case:

We are not aware of any additional cases at this time. But we are always concerned about all service members and their families' health issues.
Centers for Disease Control (CDC) called and informed her that a 2nd case has been confirmed on Fort Meade today.

was the pediatric doctor.

The family said the CDC investigator implied that a debris pile located on the corner of Clark Road may be the source of the airborne Botulism.

confimed that there were complaints of a dust cloud in the area and Picerne Military Housing agreed to water the area down. The debris pile consists of crushed concrete.

Potential issues are yet to be investigated:

We have a meeting with the commander at 8:00 in the morning in his office. Will keep everyone notified.

(CBS - Channel 9 WUSA may pick up the story. Fort Meade PAO was notified by DINFOS PAO that the wife of the family wanted to have them at her house last night. But Fort Meade PAO informed the family that all media coming to the installation must be escorted by our office.)

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE
ALCON,

Attached is the press release that we have developed for QUERY RESPONSE ONLY. Not For Distribution to the media. AGAIN, Please keep in command channels.

If you get a question. Refer any media to my office (301)-677-1436. Then we will handle any questions and provide a copy of the attached press release.

EXSUM Jan. 10, 2007

As of today we have not had any media queries.

Tonight, Jan. 10, an information paper was distributed to the families who live in the same area as the children who became sick. (Installation Commander Colonel [redacted] went to about about 20 houses.)

Tomorrow an information paper (see attached below) will be distributed to all the homes on the installation and at the Child Care Centers. Next week, Colonel [redacted] will address the issue in his command column. (We missed getting in by deadline for this week's paper.) And we will have a story in next weeks paper.

IF you have any questions, give me a call.

<<Botullism1jan1007.doc>>
This could go national tonight. Will be surprised if it doesn't.

Today NBC news in Baltimore came out to cover the botulism story. Apparently the family of the first incident told the reporter they thought it was a cover up.

We preempted the family by having the reporter talk with Colonel , LTC , Preventative Medicine , Kimbrough Commander and Dr. , Chief Physician.

The commander assured the reporter that there was no cover-up. In fact he went door to door last night to 20 homes in the neighborhood where the children live. We developed a fact sheet and canvassed the housing area and day cares today. We also have a town hall meeting scheduled for January 23 at Potomac place neighborhood center.

I believe we were able to give a balanced message that infant botulism is rare.

Botulism is in the ground. All around and we don't know the cause of these two cases.

Our community awareness program is underway.

Investigators are coming next week and we are working with local community health care providers.

The reporter just left and is going to talk with the family. I sent 2 of my folks with them. I will let you know how it goes when they return.

All we can hope for is a balanced story. I believe we did all we could do to get that.
From: Mr WRAMC-Wash DC
Sent: Thursday, January 11, 2007 4:15 PM
To: Ms OTSG
Subject: FW: NARM CCIR **UPDATE** 2 CASES OF INFANT BOTULISM CONFIRMED AT FT MEADE, KIMBROUGH AMBULATORY CARE CENTER (KACC), FT MEADE, MD

Attachments: NARM CCIR - 111600JAN07 - UPDATE 2 Cases of Infant Botulism, Ft Meade, KACC.doc

Here's our command update FYI

11 January 2007

2 CASES OF INFANT BOTULISM CONFIRMED AT FT MEADE, KIMBROUGH AMBULATORY CARE CENTER (KACC), FT MEADE, MD (U) (MCAT-OP) This is a follow-up to the CCIR sent on 10 Jan 07. KACC has begun assembling a team of epidemiological investigators from Ft Meade MEDDAC, CHPPM, WRAMC and Anne Arundel County Health Department. Investigation into the cause of the 2 cases of infant botulism at Ft Meade has begun. The media, an NBC affiliate out of Baltimore—WBAL Channel 11 (local), met with the family of the child with the first case of infant botulism. Family believes the source disease is soil and debris pile adjacent to the family housing area. WBAL personnel interviewed the garrison commander and the Ft Meade MEDDAC Chief of Preventive Medicine, LTC [REDACTED], to ask questions about the cause of infant botulism, the mode of transmission of the disease, the occurrence of this disease on the installation, whether or not the installation would be investigating the cause of the disease, and any preliminary information available as to the cause of the disease in the two infants. The medical talking points consisted of 1) the health of the two infants is of primary concern and a full recovery is expected; 2) an investigation is ongoing with no preliminary information available at this time; epidemiological investigation involves collaboration with Army, local and state public health personnel. The news segment is to air at 1730 hrs this evening. POC is COL [REDACTED] at 301-677-8171.
Sir;
Believe all the coverage was positive last night on the Botulism cases. Spokespersons did a very good job. First link has a good streaming video.

v/r

http://www.wmdt.com/wires/displaystory.asp?id=57540200
Subject: UPDATE on Media Activities at Fort Meade

EXSUM
January 12, 2007
Friday

Stories appeared last night and this morning on/in:
WBAL TV 11 - NBC (Baltimore)
WUSA TV 9 - CBS (Washington)
WJZ TV 13 - CBS (Baltimore)
CNN
WBFF TV 5 - Fox
Capitol Gazette
AP
Various local metro radio stations.

UPDATE of Today's Events:

Media interest in the Botulism story continued today. continued to contact the media and be interviewed and says she won't rest until she gets some answers.

We were able to counter her barbs today when the commander went on air with WUSA9, Washington CBS affiliate and informed the reporter that the investigators were on site today. Our talking points included the fact that the investigators told him that botulism is a naturally occurring bacterium that can be found anywhere. They emphasized we may not ever know what caused these children to get sick. But the installation was doing all they could to ensure the safety of our community.

Two town hall meetings are scheduled for next week.

An invitation went out tonight to the residents of Amber Court to come to a private town hall meeting at 7pm on Tuesday January 16, 2007. We will have a physician from the US Army Center for Health Promotion and Preventive Medicine (USACHPPM) who is a member of the epidemiological consult (EPICON) team assisting in the investigation.

A second follow-up town hall meeting for all Fort Meade residents will be January 23 at Potomac Place at 6:00. Again the investigators for USACHPPM will be there to answer any questions.

We also had WJLA TV 7, ABC Affiliate cover the event on the installation. There was a problem with the news crew showed up without contacting the Installation PAO office. They showed their House of Representatives Press Badge to the Contract Guard who thought they were a political leader and let them on the installation. They arrived at the home (where they had been invited by the investigators were arriving. So there was no PAO escort. But LTC and Colonel , the Director, Epidemiology and Disease Surveillance, (U.S. Army Center for Health Promotion and Preventive Medicine, Aberdeen Proving Ground, Maryland) answered their questions successfully. And the media left. We later caught up with the media and explained the rules of escorting of media on post and explained they risk the pulling of their credentials on Fort Meade if they ever do that again. We believe they now understand.

We also met with the Investigating Team today. The told us the following information.
They will not be doing environmental sampling in the house or outside or in the area. Our goal will be to explain this so folks don't think we are not doing anything. But sampling at this point is a waste of time. Botulism is everywhere.

The team will attempt to determine whether the two infant botulism cases reported in the Fort Meade area are related and attempt to identify any possible, common links or sources.

If one or more sources are identified, control measures may be recommended to guard against further transmission. Communication will be important throughout the process, and the team will share information regarding the illness and control measures with the affected community.

These cases are linked by proximity. Walter Reed Army Hospital has sent specimens from the babies to be tested at Maryland Labs. It will be several weeks before we have any answers. But the odds are against us finding an underlying source because it is everywhere in the soil. It is not an inhalation problem but a toxic ingestion problem.

Reviewing results of tests that were ordered on the affected children during their illness, as well as more specific testing that is in progress using samples from these patients. These more specific, bacteria subtype tests are being processed at public health laboratories. The team will review additional clinical information from healthcare providers.

They conducted interviews with both sets of infants' parents to determine food history and possible environmental exposures. They have follow-up questions with the one set of parents and will go back tonight.

Team members will also try to determine if the Fort Meade community or the civilian sector is experiencing other cases, by looking at surveillance data and disease reports. They are going tonight to introduce themselves to two other neighbors who have infants and live in the neighborhood.

They expect these meetings to extend through next week.

We have no plans to come in this weekend for coverage over the weekend. I believe the media is through until we can get some results. is on post and will be on call if anyone needs her. Her number is

Have a great weekend.

Building 4550, Room
Fort Meade, MD 20755
army.mil <mailto:army.mil>
FYI

-----Original Message-----
From: Ms USACHPPM
Sent: Friday, January 12, 2007 2:10 PM
To: Ms OTSG; Ms OCPA; Mr WRAMC-Wash DC; Mr MEDCOM HQ
Subject: Infant botulism--CHPPM EPICON dispatched

and all,

CHPPM sent an epidemiological consultation team (EPICON) to Fort Meade today (at request of Kimbrough) to assist in the investigation into the two cases of infant botulism. One occurred in October (recovered) and one this month (under treatment at Walter Reed and expected to recover). The EPICON is working closely with the Maryland public health department.

I have noted coverage on the local TV network affiliates including FOX, NPR, and Baltimore Examiner (an AP short story)--I can't be sure this is an all-inclusive list.

CHPPM (as of 2 pm today) has not received inquiry or request for interview (which we would coordinate through the Fort Meade public affairs office). CHPPM has a draft RTQ that has been approved here and is now being reviewed by the Kimbrough commander.

If you receive any report on this--Fort Meade or North Atlantic Regional Medical Command--I'd appreciate your forwarding it to me for info.

Thanks,

USACHPPM: Saving Lives & Resources--Prevention is the Key.
One resident asked about cans at commissary. LTC explained we have a person in commissary that checks cans for dents, rust and other problems. It is ongoing.

Colonel explained some of the preventative things we are doing.

Keep dust down. Reseed.

We emphasised the team effort. We are working with DOD, State County, etc.

The zinger for the night was the last question.

Are our pets in any danger. They are small and on the ground are there any dangers for them.

One resident said she heard we had 4 animals from Musee Forest had died. Was it because of this bot problem. No one had heard about the problem so we explained we would check on it.

We will do the best we can on addressing the issues on our web site at the frequently asked questions sections.
From: [s.army.mil]
Sent: Tuesday, January 16, 2007 11:56 AM
To: C-FtMeade
Subject: RE: Infant Botulism

I think it is quite. We have the private town hall meeting tonight. But DINFOS assures me the [redacted] are not inviting media.

From: [KACC-Ft Meade]
Sent: Tuesday, January 16, 2007 11:49 AM
To: [redacted]
Subject: Infant Botulism

My DCA has asked me to check with you to see if there have been any further developments since your last email on Friday in which you stated that you didn't believe there would be any more media interest until the tests begin coming back.
Ms USACHPPM;
COL KACC-Ft Meade; LTC KACC-Ft Meade;

From: Ms USACHPPM;
COL KACC-Ft Meade; LTC KACC-Ft Meade;
Sent: Tuesday, January 16, 2007 1:25 PM
To: COL KACC-Ft Meade; LTC KACC-Ft Meade
Subject: RE: Interview/Q&A for your website

Importance: High

just called me; she is going to call next. She explained to me that
the information that she gave to the Gazette reporter was taken directly from the talking
points on the CDC Web Site and pertained to a previous infant botulism outbreak, totally
unrelated from Fort Meade's cases. I asked her if she considered two cases a cluster and
she said no. I informed her that most people who read the Gazette article would think
that we had a cluster and that our problem was caused by construction because that is the
way the quote from the CDC makes it sound. informed me that they are no
longer answering any media inquiries but are directing the media to the Fort Meade PAO and
the State Department of Health.

-----Original Message-----
From: [mailto:army.mil] Mr KACC-Ft Meade
Sent: Tuesday, January 16, 2007 12:04 PM
To: Ms USACHPPM; Cummings, COL OCPA; LTC KACC-Ft Meade;
Subject: RE: Interview/Q&A for your website
Importance: High

The number for the Media Relations Department at the CDC is 404-639-3286. I spoke to a
gentleman named Chris. He would not give me Lola Russell's number, and she is not in, so
I gave him your name and number and my name and number and asked him to have her call you,
or me if she can't get through to you.

Personally, I wouldn't consider two of something to be a cluster.

-----Original Message-----
From: [mailto:army.mil]
Sent: Tuesday, January 16, 2007 12:04 PM
To: Ms USACHPPM; Mr KACC-Ft Meade; Cummings, COL OCPA
Subject: RE: Interview/Q&A for your website

I am concerned about the Story in the Saturday, January 13 2007 Maryland Gazette paper by
Joshua Stewart. He says he talked to Lola Russell, spokesman for the CDC who is putting
out information. Can we please get in contact with this person.

Here is what she said that I have a problem with: "When there is a cluster that occurs,
there is a soil in that area which has a higher than average content that was likely form
some activity like construction."

To me here statement is confirming what Mrs. was putting out that the construction
ground was to blame. I would just like it if we could all agree on what to say. Do any of
you have a contact number for LOLA?

--- Original Message ---
From: [redacted]
Sent: Tuesday, January 16, 2007 10:46 AM
To: [redacted]
Subject: Interview/Q&A for your website

Heard the interview on your website. Nicely done!

Got your voice mail—we are preparing a few questions & answers that you can add to those you already have on your site. Would prefer that you not post the internal document I shared with you.

Thanks,

U.S. Army Center for Health Promotion & Preventive Medicine
(410) [redacted] us.army.mil
USACHPPM: Saving Lives & Resources—Prevention is the Key.

--- Original Message ---
From: [redacted] [mailto:us.army.mil]
Sent: Tuesday, January 16, 2007 8:24 AM
To: [redacted]
Subject: RE: Interview with COL [redacted]

Our email filter screened out the file—however, your report is very helpful! Thanks for letting me know he did this.

U.S. Army Center for Health Promotion & Preventive Medicine
(410) [redacted] us.army.mil
USACHPPM: Saving Lives & Resources—Prevention is the Key.

--- Original Message ---
From: [redacted] [mailto:us.army.mil]
Sent: Friday, January 12, 2007 9:23 PM
To: [redacted] [mailto:us.army.mil]
Subject: FW: Interview with COL [redacted]

Here is the interview with Colonel [redacted].
Attached is an .mp3 file with the interview I did tonight with COL [REDACTED], the Director, Epidemiology and Disease Surveillance, U.S. Army Center for Health Promotion and Preventive Medicine, Aberdeen Proving Ground, Maryland. <<COL [REDACTED] mp3>>
FactSheetBotulism1[2].doc

Could you please put this all to all Providers/Nurses/Admin, most should have it but just in case please forward.

Thanks much,
LTC

-----Original Message-----
From: Mr KACC-Ft Meade
Sent: Tuesday, January 16, 2007 11:47 AM
To: LTC KACC-Ft Meade
Subject: Botulism Flyer

The DCA asked me to obtain a copy of the flyer that you had distributed on post for this problem.
MESSAGE FROM THE INSTALLATION COMMANDER

INFANT BOTULISM FACT SHEET

Walter Reed Army Medical Center has identified two cases of infant botulism at Fort Meade since Oct. 2006. One infant has recovered while the other infant is being treated by doctors at Walter Reed Army Medical Center. The infants, both under the age of 6 months at the time of diagnosis, were treated at Walter Reed Army Medical Center. The cause is currently under investigation by the Preventive Medicine Services at Kimbrough Ambulatory Care Center on Fort Meade. Preventive Medicine at Kimbrough Ambulatory Care Center said, "while the name of the disease can be frightening, infant botulism is a treatable condition associated with swallowing the botulinum bacteria found naturally in soils and in some contaminated food products. It is premature to speculate about a particular source until the investigation is complete." Cases of Infant Botulism are rare and usually occur among infants less than 6 months of age.

What are the symptoms of Infant Botulism?

Any or all of the following:
- constipation
- poor feeding and a weak suck
- weak cry
- loss of head control
- difficulty swallowing
- excessive drooling
- floppy appearance or "floppy baby"
- generalized weakness
- breathing difficulties

What do you do if your infant is experiencing these symptoms?

Call (301) 677-8606 or go to the nearest Emergency Room
- Howard County General Hospital 5755 Cedar Lane, Columbia, Maryland (410) 740-7890 or 7990
- Laurel Regional Hospital 7300 Van Dusen Road, Laurel, Maryland (301) 725-4300 or (410) 792-2270
- Baltimore Washington Medical Center, 301 Hospital Drive, Glen Burnie, Maryland (410) 787-4000

How is Infant Botulism treated?

Prompt diagnosis is essential. Medication is available to treat the condition.

How can I reduce the risk of contracting Infant Botulism?

- Wash hands frequently
- Avoid giving honey to infants less than 1 year of age
- Routine and frequent cleaning of toys-- particularly items that babies place in their mouths and those toys which have fallen on the ground or floor
- Through proper preparation of foods (boiling and cooking)
- Avoid cans of food/formula with dents or that are bulging or rusting
- Avoid locations with excessive dust and debris

For further information about the disease, contact Kimbrough Ambulatory Care Clinic, Preventive Medicine Services (301) 677-8661. If you have other questions or are contacted by the media please refer them to the Fort Meade Public Affairs Office at (301) 677-1436 or 1486.
Hi for our botulism info, just go to our home page http://www.ftmeade.army.mil and it's the top link under 'latest' news', or here's a link directly to the botulism info page http://www.ftmeade.army.mil/botulism.html
From: COL KACC-Ft Meade
Sent: Friday, February 02, 2007 5:22 PM
To: COL KACC-Ft Meade
Cc: J Mr WRAMC-Wash DC; LTC KACC-Ft Meade;
LTC KACC-Ft Meade;

Subject: RE: Ft Meade EPICON update

COL

I am sitting with LTC now. I also think in the future, the media should afford us a chance to get the CHPPM team here to be a part of the interview. Thanks for your support.

COL

-----Original Message-----
From: COL KACC-Ft Meade
Sent: Friday, February 02, 2007 5:19 PM
To: COL KACC-Ft Meade
Cc: J Mr WRAMC-Wash DC; LTC KACC-Ft Meade;
LTC KACC-Ft Meade;

Subject: Re: Ft Meade EPICON update

Good Afternoon All:

After speaking with LTC, the interview was conducted without the garrison commander. LTC was asked questions by the reporter that should have been addressed by the garrison commander, but he was not there. In the future, we will only address the media in the presence of the garrison commander or his rep and only provide medical information. Any other info must come from the garrison!

COL Cummings

-----Original Message-----
From: Mr KACC-Ft Meade
To: COL KACC-Ft Meade
Cc: J Mr WRAMC-Wash DC; LTC KACC-Ft Meade;
LTC KACC-Ft Meade;

Sent: Fri Feb 02 14:48:00 2007
Subject: FW: Ft Meade EPICON update

COL

At about 1400 today, I received a call from the informing me of a public affairs emergency that she needed our help with. The family invited Channel 7 News to the Visitor Control Center (VCC) so that they could accuse the installation of covering up the investigation of their child's infant botulism case. Informed me that the installation commander was on his way to the VCC and wanted to have one of our staff there to read a prepared statement supplied by higher headquarters. They felt that the statement would come across better from a medical person. Also, there may be questions that only a medical person could answer. I alerted LTC and LTC . I couldn't find COL who was somewhere else in the facility. I later found upstairs with and I gave the prepared statement to LTC and she departed immediately for the VCC.

At 1440, LTC called the DCN's secretary to inform her that there was no one at the VCC. I called the post commander's office and COL secretary called him. He stated that there was no one there when he arrived either and he left after a few minutes to go to another meeting. We can only assume that the or Channel 7 called off the story and failed to notify COL office.

-----Original Message-----
From: CIV USA [mailto: army.mil]
I am willing to do by phone. Cannot come down to Meade today for WJLA interview. Key message is that any environmental sampling being discussed by the team is purely in the interest of advancing general knowledge about the ecology of C. botulinum in Maryland. There is NO environmental sampling that will guide an intervention or preventive measure to benefit the community or any individual family, and this can be said generally about NON-foodborne botulism.

I would also like them to contact Washington Post Reporter Steve Vogel 410-772-2308 email: vogels@washpost.com to correct the quote that went in the paper saying that environmental soil testing was being done.

Now we have another query. This time from TV station WJLA (ABC) Channel 7 in Washington. They are headed to our gate and want someone to go live and give them an update on camera.

Most of the principals in this investigation are meeting telephonically in about an hour. After that meeting I will contact this reporter—we will likely suggest, given that they are willing, that the reporter also speak to the MD public health expert (if he has not done so already), a CDC expert and/or the national expert in California who has been consulting on these cases with us. We want to strongly emphasize the message that this investigation was conducted in accordance with national practice standards and in consultation with nationally recognized experts.
Per our conversation, here is the media request that I got from the Baltimore Sun:

Reporter: Brad Olson
Baltimore Sun
Phone: (410) 332-6100
E-mail: bradley.olson@baltsun.com

Request:

Mrs. called the Baltimore Sun claiming that the installation is not doing enough to find out what caused the isolated cases of infant botulism at FGGM. Is the post going to be testing the environment, specifically the soil? If not, why was that decision made? Mr. Olson also had questions about how the investigation is going. I sent him a copy of the most up-to-date news release, which is attached in this e-mail. The deadline for this story is 4 p.m. on 2 Feb.

We are requesting that USACHPPM provide a subject matter expert who can comment on the investigation to the reporter and explain why the installation is not doing environmental testing.

We also wanted to inform you that Travis Edwards in our office was misquoted in the Washington Post yesterday. Travis was trying to explain that botulism is everywhere in the soil.

Then he said in an answer that we the installation would do whatever needed to be done to investigate the cause.

The reporter made the lead connection incorrectly that we would be doing environmental testing and were just waiting for the results. We will do a retraction with the Post.

Call me if you have a question. My staff is doing an excellent job trying to keep this from making another story. But we may need your help.
As we all discussed at last week's town hall meeting, below is a short weekly update of the EPICON team actions to date. I know we discussed you speaking personally with just the 3-5 families with the highest level of interest (which is certainly the most effective way to discuss concerns of these particular families). However, I strongly encourage that this information be widely publicized beyond just that group to preempt potential media focus (which is possible and potentially likely based on past community interest and history of actions). I'll be out of the office beginning this afternoon until Monday morning, but can still read email via my Blackberry. Please let me know what else I can provide to you.

+++++++++++++++++++++++++++++++++++++++++++++++++++++++~++++++++++++++++
++++++++++++++++++++++++++++++++++++++++++++++++

aryan DHMH Laboratory has contacted the Center for Disease Control and Prevention (CDC in Atlanta, GA) to see if they are willing to do the subtyping and expect a CDC response by the end of the week.

The EPICON team is continuing discussions with the Maryland Department of Health and Mental Hygiene (DHMH), the CDC, the laboratory in California, Fort Meade medical authorities and other experts in this field to determine next steps in the investigation.

The Army's Medical Surveillance Activity (AMSA) is also working on a retrospective analysis of botulism cases for 1996-2005 for publication in their Medical Surveillance Monthly Report (MSMR) article. These reports are available online at:

http://amsa.army.mil/AMSA/amsa_home.htm
Vexing infant botulism provokes threat of suit By Bradley Olson Sun Reporter Originally published February 3, 2007. It's one of the rarest infectious diseases, affecting an average of only 100 babies a year in the United States, but infant botulism infected two babies living on the same street at Fort Meade in recent months - puzzling researchers.

Clusters of the illness are not unprecedented, experts say, and the ubiquity of the bacterial spores that cause infant botulism makes isolating one source almost impossible.

That is especially true in this case, where the military base also happens to be an Environmental Protection Agency Superfund site.

Both children survived the illness, but one family confirmed yesterday that it has hired a lawyer who will likely sue the Army, claiming that military officials have been negligent in seeking the cause of the outbreak. The parents of the other child say they do not blame the military and do not plan to join a lawsuit.

On Thursday, base officials confirmed that both cases, the first diagnosed in October and the second in December, came from the same strain of Clostridium botulinum bacteria.

"I would be hesitant to reassure everyone by saying this is a freak thing and this is over," said Col. Bruno Petruccelli, a physician and director of epidemiology and disease surveillance at the U.S. Army Center for Health Promotion and Preventive Medicine in Aberdeen. "Maybe there will be a third case and a fourth case. We can't say there won't be another one."

Army doctors involved in the investigation say they have followed medical protocol, conducting an investigation with help from experts at the Centers for Disease Control and Prevention in Atlanta, Walter Reed Army Medical Center, Maryland Public Health Administration and Anne Arundel County Department of Public Health.

Infant botulism develops in newborns - usually those between 3 weeks and 6 months of age - when they ingest bacteria that produce a toxin inside the large intestine. The toxin attaches to nerves in the body and paralyzes them. Although the condition is treatable and most babies eventually recover, it causes several frightening symptoms, including paralysis and respiratory problems.

Such was the case with whose family lives on the Anne
Arundel County military base.

On Oct. 2, [REMOVED] noticed that the baby became fussy and was not feeding well. Thinking he was teething, she put him to bed. The next morning, he made an odd, grunting sound, and when she picked him up, his head flopped.

She took him to Bethesda Naval Hospital, where doctors, thinking [REMOVED] was dehydrated, gave him fluids intravenously. When his eyes began to gloss over, [REMOVED] recalled, [REMOVED] was rushed to Walter Reed Army Hospital, where a young physician noticed symptoms of infant botulism she had seen in a case during her residency.

She went home to research the condition and in the meantime, doctors tested him for meningitis. When that came back negative, they sent him to get a CT scan to rule out a neurological disorder. During the scan, [REMOVED] vital signs plunged, and a gaggle of doctors and nurses rushed into the room, reviving him and putting him on oxygen.

Once infant botulism was definitively diagnosed, they treated him with a drug called "Baby-BIG," which slightly relieves symptoms and doesn't allow the toxin to paralyze any other nerves.

"My son was so sick, he couldn't even open his eyes," [REMOVED] said. "He had over 50 needle marks in him because his veins kept bursting. To watch that, it was absolutely the most terrifying, horrible experience I've had to go through as a mother, and I've got four kids. I don't want any other families to have to go through that.

[REMOVED] has been fine since his recovery, but his mother became angry when, on Jan. 9, a Walter Reed doctor called her to say another child on her street had been diagnosed with infant botulism. At that point, she became convinced that the military was not committed to finding a cause.

Michael Archuleta, a Texas-based lawyer who is also a physician and is representing the family, said he believes a pile of debris, about a block from the street where both families live, is the source of the toxin, and will file a negligence claim with the Army.

"We have two cases of infant botulism occurring in the same time frame, very close to one another, that is epidemiologically very improbable unless it came from an external or environmental source," he said.

A base spokeswoman confirmed that there was a debris pile and said it was removed and the site was covered with hay on Jan. 7.

The mother of the second child, who asked not to be identified when contacted by The Sun, said that her daughter is no longer sick and that she does not wish to join any potential lawsuit.

In interviews with both families, investigators have determined that the source was not food such as honey, which has proved to be a source of infant botulism.

Fort Meade and Army officials, as well as several leading independent epidemiologists and infectious disease experts, insist that testing soil in infant botulism cases would be fruitless because the bacterial spores that cause it are common and naturally occurring.

Dr. John Bartlett, a professor of medicine at the Johns Hopkins University who specializes in infectious diseases but is not involved in these cases, said that testing soil is "pointless."

"That kind of activity just doesn't pay off," he said. "You don't look for it in dirt, and even looking for it in a food source is going to be a long shot. I mean, two cases in the same geographic area are unusual, but I wouldn't know quite how to go about finding a source. Usually, we don't try because we don't find it."

Archuleta and the [REMOVED] believe that DNA testing could establish an exact match between the two cases and the dirt pile or other soils, and they intend to use that evidence in any litigation.

The toxin is too ubiquitous, Petrucelli, the Army epidemiologist, said, and the DNA-testing process too inconclusive. That Fort Meade was built on a landfill and is currently
monitored by the Environmental Protection Agency would not have any impact, because those sites focus on chemical agents and other toxic substances, not naturally occurring substances, he said.

Dr. James Campbell, a pediatric infectious disease specialist at the University of Maryland School of Medicine, who is not involved in the case, said unlike food-borne botulism, which generally infects adults and which investigators almost always link to a food source, there is often no identified source for the infant variety.

bradley.olson@baltsun.com <http://www.baltimoresun.com/about/bal-reporterfeedback,0,4526743.htmlstory?recipient=bradley.olson@baltsun.com>
Vexing infant botulism provokes threat of suit

BY BRADLEY OLSON
SUN REPORTER
ORIGINALLY PUBLISHED FEBRUARY 3, 2007

It's one of the rarest infectious diseases, affecting an average of only 100 babies a year in the United States, but infant botulism infected two babies living on the same street at Fort Meade in recent months - puzzling researchers.

Clusters of the illness are not unprecedented, experts say, and the ubiquity of the bacterial spores that cause infant botulism makes isolating one source almost impossible.

That is especially true in this case, where the military base also happens to be an Environmental Protection Agency Superfund site.

Both children survived the illness, but one family confirmed yesterday that it has hired a lawyer who will likely sue the Army, claiming that military officials have been negligent in seeking the cause of the outbreak. The parents of the other child say they do not blame the military and do not plan to join a lawsuit.

On Thursday, base officials confirmed that both cases, the first diagnosed in October and the second in December, came from the same strain of Clostridium botulinum bacteria.
"I would be hesitant to reassure everyone by saying this is a freak thing and this is over," said Col. Bruno Petruccelli, a physician and director of epidemiology and disease surveillance at the U.S. Army Center for Health Promotion and Preventive Medicine in Aberdeen. "Maybe there will be a third case and a fourth case. We can't say there won't be another one."

Army doctors involved in the investigation say they have followed medical protocol, conducting an investigation with help from experts at the Centers for Disease Control and Prevention in Atlanta, Walter Reed Army Medical Center, Maryland Public Health Administration and Anne Arundel County Department of Public Health.

Infant botulism develops in newborns—usually those between 3 weeks and 6 months of age—when they ingest bacteria that produce a toxin inside the large intestine. The toxin attaches to nerves in the body and paralyzes them. Although the condition is treatable and most babies eventually recover, it causes several frightening symptoms, including paralysis and respiratory problems.

Such was the case with Jonathan Cook, now 10 months old, whose family lives on the Anne Arundel County military base.

On Oct. 2, Christine Cook noticed that the baby became fussy and was not feeding well. Thinking he was teething, she put him to bed. The next morning, he made an odd, grunting sound, and when she picked him up, his head flopped.

She took him to Bethesda Naval Hospital, where doctors, thinking Jonathan was dehydrated, gave him fluids intravenously. When his eyes began to gloss over, Cook recalled, Jonathan was rushed to Walter Reed Army Hospital, where a young physician noticed symptoms of infant botulism she had seen in a case during her residency.

She went home to research the condition and in the meantime, doctors tested him for meningitis. When that came back negative, they sent him to get a CT scan to rule out a neurological disorder. During the scan, Jonathan's vital signs plunged, and a gaggle of doctors and nurses rushed into the room, reviving him and putting him on oxygen.

Once infant botulism was definitively diagnosed, they treated him with a drug called "Baby-BIG," which slightly relieves symptoms and doesn't allow the toxin to paralyze any other nerves.

"My son was so sick, he couldn't even open his eyes," Cook said. "He had over 50 needle marks in him because his veins kept busting. To watch that, it was absolutely the most terrifying, horrible experience I've had to go through as a mother, and I've got four kids. I don't want any other families to have to go through that."
Jonathan has been fine since his recovery, but his mother became angry when, on Jan. 9, a Walter Reed doctor called her to say another child on her street had been diagnosed with infant botulism. At that point, she became convinced that the military was not committed to finding a cause.

Michael Archuleta, a Texas-based lawyer who is also a physician and is representing the Cook family, said he believes a pile of debris, about a block from the street where both families live, is the source of the toxin, and will file a negligence claim with the Army.

"We have two cases of infant botulism occurring in the same time frame, very close to one another, that is epidemiologically very improbable unless it came from an external or environmental source," he said.

A base spokeswoman confirmed that there was a debris pile and said it was removed and the site was covered with hay on Jan. 7.

The mother of the second child, who asked not to be identified when contacted by The Sun, said that her daughter is no longer sick and that she does not wish to join any potential lawsuit.

In interviews with both families, investigators have determined that the source was not food such as honey, which has proved to be a source of infant botulism.

Fort Meade and Army officials, as well as several leading independent epidemiologists and infectious disease experts, insist that testing soil in infant botulism cases would be fruitless because the bacterial spores that cause it are common and naturally occurring.

Dr. John Bartlett, a professor of medicine at the Johns Hopkins University who specializes in infectious diseases but is not involved in these cases, said that testing soil is "pointless."

"That kind of activity just doesn't pay off," he said. "You don't look for it in dirt, and even looking for it in a food source is going to be a long shot. I mean, two cases in the same geographic area are unusual, but I wouldn't know quite how to go about finding a source. Usually, we don't try because we don't find it."

Archuleta and the Cooks believe that DNA testing could establish an exact match between the two cases and the dirt pile or other soils, and they intend to use that evidence in any litigation.

The toxin is too ubiquitous, Petrucelli, the Army epidemiologist, said, and the DNA-testing process too inconclusive. That Fort Meade was built on a landfill and is currently monitored by the Environmental Protection Agency would not have any impact, because those sites focus on chemical agents and other toxic substances, not naturally occurring substances, he said.

Dr. James Campbell, a pediatric infectious disease specialist at the University of Maryland School of Medicine, who is not involved in the case, said unlike food-borne botulism, which generally infects adults and which investigators almost always link to a food source, there is often no identified source for the infant variety.
Vexing infant botulism provokes threat of suit - baltimoresun.com

5.18, 19 in horse race
• More most e-mailed
Subject: Botulism UPDATE

EXSUM

February 2, 2007

Botulism UPDATE

FGGM PAO had requests for information about the cases of infant botulism from media outlets including:

1. The Baltimore Sun
2. Fox 5, D.C. (query complete)
3. WJLA Channel 7, D.C. (a crew came to the Reece Road gate for a live shot around 1800)

BACKGROUND as I know it:

The [redacted] created another media day around the botulism situation on Fort Meade. Mr. [redacted] told his commander at DINORD he feels it is his duty to expose the installation because he feels we are covering something up. Their concern is based on the fact the inspectors are not doing any environmental testing in his neighborhood. They have hired an environmental lawyer in Austin to sue the installation. And they are contacting the media to ensure their voices are heard. (Just so you know we did not know about the lawsuit before the interview. The reporter used it as one of the opening questions when they arrived back at the installation.)

The problem is this is wrong. We are not involved in a cover up of any kind. In fact the command has been very proactive about the whole thing.

So we are doing our best we can to counter their attacks by having the experts at United States Army Center for Health Promotion and Preventive Medicine (CHPPM) available for the reporters to talk to. Today the Baltimore Sun reporter Brad Olsen talked to Col. [redacted] at CHPPM via phone. The reporter had questions for the installation as well.

Our basic message was that until the investigations are complete any comments on causes would be speculative. Ft. Meade continues to cooperate fully with US Army, Anne Arundel County, Maryland and Centers for Disease Control investigators. Col. [redacted] has been
proactive in notifying the community and addressing their concerns.

When asked about the debris pile near the home we said; "Concrete construction debris was temporarily stored at the site in preparation for crushing and re-use on other projects. Crushing occurred on Oct. 31, Nov. 1-3 and Nov. 7. The crushed concrete was moved from the site and it used as road fill. The area in question was hydro-seeded on Jan 7 and hay was laid over the seed to allow it to germinate.

Colonel went on camera this afternoon on channel 7 WJLA in Washington (ABC). She stuck to the same messages we had put out before. The Clostridium botulinum bacteria is a naturally occurring bacteria that is found anywhere in the environment. Therefore we don’t plan to do any soil sampling or air quality sampling because it exists everywhere in Maryland. We don’t have any answers right now because the investigation is not complete. But we are working together with Anne Arundel County, Maryland and Centers for Disease Control investigators. She also emphasis that very likely we would not ever be able to point to an exact cause.

The first newscast at 6:00 was very short. It basically said the were suing the Army. They did not use any of the footage from Colonel. They filmed an intro around 7pm and said the real story would be on the 10:00 news tonight.

We will continue to monitor the situation and send reports up as we have them.

Vexing infant botulism provokes threat of suit

By Bradley Olson

Sun Reporter

Originally published February 3, 2007

It's one of the rarest infectious diseases, affecting an average of only 100 babies a year in the United States, but infant botulism infected two babies living on the same street at Fort Meade in recent months - puzzling researchers.

Clusters of the illness are not unprecedented, experts say, and the ubiquity of the bacterial spores that cause infant botulism makes isolating one source almost impossible.

That is especially true in this case, where the military base also happens to be an Environmental Protection Agency Superfund site.

Both children survived the illness, but one family confirmed yesterday that it has hired a lawyer who will likely sue the Army, claiming that military officials have been negligent in seeking the cause of the outbreak. The parents of the other child say they do not blame the military and do not plan to join a lawsuit.

On Thursday, base officials confirmed that both cases, the first diagnosed in October and
the second in December, came from the same strain of Clostridium botulinum bacteria.

"I would be hesitant to reassure everyone by saying this is a freak thing and this is over," said Col. Bruno Petruccelli, a physician and director of epidemiology and disease surveillance at the U.S. Army Center for Health Promotion and Preventive Medicine in Aberdeen. "Maybe there will be a third case and a fourth case. We can't say there won't be another one."

Army doctors involved in the investigation say they have followed medical protocol, conducting an investigation with help from experts at the Centers for Disease Control and Prevention in Atlanta, Walter Reed Army Medical Center, Maryland Public Health Administration and Anne Arundel County Department of Public Health.

Infant botulism develops in newborns - usually those between 3 weeks and 6 months of age - when they ingest bacteria that produce a toxin inside the large intestine. The toxin attaches to nerves in the body and paralyzes them. Although the condition is treatable and most babies eventually recover, it causes several frightening symptoms, including paralysis and respiratory problems.

Such was the case with [REDACTED] whose family lives on the Anne Arundel County military base.

On Oct. 2, [REDACTED] noticed that the baby became fussy and was not feeding well. Thinking he was teething, she put him to bed. The next morning, he made an odd, grunting sound, and when she picked him up, his head flopped.

She took him to Bethesda Naval Hospital, where doctors, thinking he was dehydrated, gave him fluids intravenously. When his eyes began to gloss over, he was rushed to Walter Reed Army Hospital, where a young physician noticed symptoms of infant botulism she had seen in a case during her residency.

She went home to research the condition and in the meantime, doctors tested him for meningitis. When that came back negative, they sent him to get a CT scan to rule out a neurological disorder. During the scan, vital signs plunged, and a gaggle of doctors and nurses rushed into the room, reviving him and putting him on oxygen.

Once infant botulism was definitively diagnosed, they treated him with a drug called "Baby-BIG," which slightly relieves symptoms and doesn't allow the toxin to paralyze any other nerves.

"My son was so sick, he couldn't even open his eyes," [REDACTED] said. "He had over 50 needle marks in him because his veins kept bursting. To watch that, it was absolutely the most terrifying, horrible experience I've had to go through as a mother, and I've got four kids. I don't want any other families to have to go through that."

Jonathan has been fine since his recovery, but his mother became angry when, on Jan. 9, a Walter Reed doctor called her to say another child on her street had been diagnosed with infant botulism. At that point, she became convinced that the military was not committed to finding a cause.

Michael Archuleta, a Texas-based lawyer who is also a physician and is representing the [REDACTED] family, said he believes a pile of debris, about a block from the street where both families live, is the source of the toxin, and will file a negligence claim with the Army.

"We have two cases of infant botulism occurring in the same time frame, very close to one another, that is epidemiologically very improbable unless it came from an external or environmental source," he said.

A base spokeswoman confirmed that there was a debris pile and said it was removed and the site was covered with hay on Jan. 7.

The mother of the second child, who asked not to be identified when contacted by The Sun, said that her daughter is no longer sick and that she does not wish to join any potential lawsuit.

In interviews with both families, investigators have determined that the source was not food such as honey, which has proved to be a source of infant botulism.
Fort Meade and Army officials, as well as several leading independent epidemiologists and infectious disease experts, insist that testing soil in infant botulism cases would be fruitless because the bacterial spores that cause it are common and naturally occurring.

Dr. John Bartlett, a professor of medicine at the Johns Hopkins University who specializes in infectious diseases but is not involved in these cases, said that testing soil is "pointless."

"That kind of activity just doesn't pay off," he said. "You don't look for it in dirt, and even looking for it in a food source is going to be a long shot. I mean, two cases in the same geographic area are unusual, but I wouldn't know quite how to go about finding a source. Usually, we don't try because we don't find it."

Archuleta and the believe that DNA testing could establish an exact match between the two cases and the dirt pile or other soils, and they intend to use that evidence in any litigation.

The toxin is too ubiquitous, Petrucelli, the Army epidemiologist, said, and the DNA-testing process too inconclusive. That Fort Meade was built on a landfill and is currently monitored by the Environmental Protection Agency would not have any impact, because those sites focus on chemical agents and other toxic substances, not naturally occurring substances, he said.

Dr. James Campbell, a pediatric infectious disease specialist at the University of Maryland School of Medicine, who is not involved in the case, said unlike food-borne botulism, which generally infects adults and which investigators almost always link to a food source, there is often no identified source for the infant variety.

bradley.olson@baltsun.com <http://www.baltimoresun.com/about/bal-reporterfeedback,0,4526743.htmlstory?recipient=bradley.olson@baltsun.com>