



New Hampshire Health Alert Network

Health.Alert@nh.gov

Status: Actual
Message Type: Alert
Severity: Severe
Sensitive: Not Sensitive
Message Identifier: NH-HAN #20121006 Fungal Meningitis Update #1
Delivery Time: 12 hours
Acknowledgement: No
Originating Agency: NH Department of Health and Human Services, Division of Public Health Services

DATE: October 6, 2012 **TIME:** 2200 EDT

TO: Physicians, Physician Assistants, Nurses, Infection Control Practitioners, Infectious Disease Specialists, Hospital Emergency Departments, Hospital CEOs, Laboratory Response Network, Manchester Health Department, Nashua Health Department, NHHA, NH School Nurses and Administrators, Community Health Centers, DHHS Outbreak Team, DPHS Investigation Team, Ambulatory Surgical Centers, Public Health Network, and DPHS Management Team

FROM: Sharon Alroy-Preis MD, State Epidemiologist

SUBJECT: Fungal Meningitis Outbreak Following Epidural Steroid Injection Update #1.

New Hampshire DHHS, Division of Public Health Service (NH DPHS) recommends:

- Continued awareness of a rapidly evolving and severe national meningitis outbreak.
- Discontinue use of all products distributed by the New England Compounding Center (NECC) of Massachusetts.
- Consideration of fungal etiology in **any** patient with CNS symptoms (meningitis, brain abscess or stroke), with recent epidural medication injection (especially methylprednisolone), even if symptoms are subtle
- Review attached clinical guidance.
- Notification of conference call on 10/7/12 at 2pm with NH DPHS to review clinical guidance
- Awareness of available infectious disease consultation from NH DPHS.
- Timely reporting to NH DPHS of any suspect cases that may be related to this outbreak.
- Please refer to previous Centers for Disease Control and Prevention (CDC) HAN sent on 10/4/12 for other specific information on this outbreak.
- Please visit the NH DHHS website to view the DPHS HAN from 10/4/12:
<http://www.dhhs.nh.gov/dphs/cdcs/alerts/han.htm>

National Outbreak Update:

The Centers for Disease Control and Prevention (CDC) in collaboration with the Food and Drug Administration (FDA) are continuing to work on an active outbreak of fungal meningitis in patients post epidural steroid injection. The national case count as of October 6, 2012, related to this outbreak is 64 cases in 9 states and 7 deaths. NH does not have cases associated with this outbreak at this time, although investigation of symptomatic patients who have been exposed is

ongoing. So far both *Aspergillus* spp. and *Exserohilum* spp. have been isolated in patients from CSF, in addition to *Propionibacterium* Bacterium of unknown significance, so other fungal and bacterial organisms may be involved as well. Additional information from CDC on this outbreak (including national epidemiology, diagnostic and therapy recommendations from national experts) is available at the following link:

<http://www.cdc.gov/HAI/outbreaks/meningitis.html>

You can also refer to our initial HAN on this topic, dated 10/4/12 (attached).

NH Specific Information:

In New Hampshire, the relevant time frame for exposure to these contaminated vials of methylprednisolone has been extended back to June 11, 2012 for the Pain Care location in Merrimack and to June 18th, 2012 for the Pain Care location in Somersworth. This date is based on the date of receipt of additional vials of methylprednisolone which have been implicated in this outbreak. These additional patients are in the process of being notified and all 186 patients in NH who received a steroid injection with the initially recalled lot numbers have been contacted directly with more specific instructions.

NH DPHS team will host a conference call on 10/7/12 at 2pm with hospitals to provide an opportunity to discuss and review the updated attached clinical guidance. This is an open invitation for any provider or facility who has seen or anticipates caring for patients who have been exposed to these steroid injections at Pain Care, LLC in Merrimack or Somersworth. This may be particularly relevant for emergency department staff, who have been triaging and managing these patients since the outbreak was first announced.

We encourage any interested provider or facility to join the call on this urgent and time-sensitive topic. We also encourage providers or facilities to call their local infectious disease colleagues to elicit their expertise early on as they are investigating symptoms in exposed individuals. NH DPHS also has several infectious disease physicians available 24/7 for additional consultation or questions related to the work up of patients possibly connected to this national outbreak.

Specimen submission: For any clinical specimens submitted as part of this outbreak investigation to the NH PHL, please complete the NH PHL requisition form (attached) and indicate "referral, fungal meningitis outbreak" on the form. Refer to the HAN dated 10/4/12 for specific submission guidelines.

Please contact the NH DPHS Infectious Disease Investigation and Surveillance Sections at 603-271-4496 (after hours 1-800-852-3345, x5300) to report suspect or confirmed cases.

This outbreak is rapidly evolving and NH DPHS will continue to provide updates as new information is learned.

Attachments: Updated Clinical Guidance from NH DPHS, NH PHL Requisition Form, CDC HAN from 10/4/12, CDC case definitions 6OCT12.

For any questions regarding the contents of this message, please contact NH DHHS Infectious Disease Investigation and Surveillance Sections at 603-271-4496.

After hours or toll free (In NH) at 800-852-3345, ext. 4496 or 603-271-5300 and ask for the public health professional on call.

DEFINITION OF TERMS AND ALERTING VOCABULARY

Message Type

Alert: Original alert
Update: Prior alert has been updated and superseded
Cancel: Prior alert has been cancelled
Error: Prior alert has been retracted

Status

Actual: Refers to a live event
Exercise: Designated recipients must respond to the communication or alert
Test: Related to a technical and/or system test

Severity

Extreme: Extraordinary threat to life or property
Severe: Significant threat to life or property
Moderate: Possible threat to life or property
Minor: Minimal threat to life or property
Unknown: Unknown threat to life or property

Sensitive

Sensitive: Indicates the alert contains sensitive content
Not Sensitive: Indicates non-sensitive content

Message Identifier

A unique alert identifier that is generated upon alert activation

Delivery Time

Indicates the time frame for the delivery of the alert

Acknowledgement

Indicates whether an acknowledgement on the part of the recipient is required to confirm that the alert was received, and the time frame in which a response is required.

Originating Agency

A guaranteed unique identifier for the agency originating the alert.

Alerting Program

The program sending the alert or engaging in alerts and communications using PHIN Communication and Alerting (PCA) as a vehicle for their delivery.

You have received this message based upon the information contained within our emergency notification database.

If you have a different or additional e-mail or fax address that you would prefer to be used, please contact:

Denise M. Krol, MS
NH HAN Coordinator
Denise.Krol@dhhs.state.nh.us

Business Hours: 8 AM – 4 PM
Tel: 603-271-4596
Fax: 603-271-0545

**NH Department of Health and Human Services, Division of Public Health Services
Bureau of Infectious Disease Control**

**Interim Clinical Guidance for Providers Regarding the National Outbreak of
Fungal Meningitis Associated with NECC Product Recall 10.6.2012.**

Category A: Patients of Pain Care, LLC in Merrimack and Somersworth who received one of the three lots initially recalled of Methylprednisolone Acetate (80mg/ml) from NECC (Lot #05212012, 06292012, 08102012) between June 11, 2012 and September 25, 2012

1. All exposed patients are being called by the Pain Clinics who performed the procedures or DPHS
2. All exposed patients need to be asked about new or worsening symptoms
3. Clinical status (based on outreach by facilities to patients) should be reported to DPHS for all patients
4. Any new symptom should be fully evaluated with a low threshold for invasive diagnostic tests as appropriate (see below*) and results should be reported immediately to DPHS, Bureau of Infectious Disease Control – 603-271-4496 (after hours: 603-271-5300 paging the PH nurse on call)

Category A1: Patients who received epidural injection of this medication

1. Any new symptoms in these individuals which are consistent with meningitis or stroke should be taken seriously (even subtle symptoms such as mild headache without neck stiffness or fever). Providers are recommended to maintain a low threshold for performing a lumbar puncture as part of the diagnostic evaluation for these individuals. Testing recommendations for this CSF fluid are listed below*.
2. Consider imaging depending on the clinical situation (CT Head with contrast or Brain MRI) to rule out infarcts or abscesses (which have been noted in other confirmed cases).
3. Consult an Infectious Disease (ID) Specialist for these patients with any new or worsening symptoms. Several ID doctors in the affected parts of NH have been closely involved with this developing situation and they can be very helpful in questions about appropriate triage, diagnostics and the question of whether to initiate empiric therapy if clinical suspicion is high. NH DPHS ID consultation available as second opinion if needed.

Category A2: Patients who received injection to other body sites

1. If these individuals have new symptoms at the site where they had an injection, that site of injection should be evaluated for signs of infection (redness, warmth or swelling). Providers are asked to maintain a low threshold for invasive evaluation by sampling of fluid from the site in any patient with new or worsening symptoms (for example post knee injection – knee arthrocentesis). These may be difficult clinical decisions, since many of these patients will have chronic joint pains.
2. ID consult should be considered in this situation as well if there are any questions about appropriate triage or management. NH DPHS ID consultation available as second opinion if needed.

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Bureau of Infectious Disease Control**

Category B: Patients who received injections with other NECC products that have been recalled (see list at the bottom)**

1. At present, these individuals are not being contacted directly
2. If these individuals are seeking care due to symptoms:
 - a. They should be evaluated with consideration of fungal etiology in the differential diagnosis. Providers are asked to maintain a low threshold for invasive diagnostic tests to rule out infection
 - b. These symptomatic cases should be reported to DPHS at the number listed above
 - c. Consider Infectious Disease consult. NH DPHS ID consultation available as second opinion if needed.

Category C: Patients who did not receive injections and have symptoms

1. Evaluate and treat these individuals as you would normally, with low suspicion for fungal CNS or joint infections in the healthy host.

Category D: Patients who received an injection (joint or CNS) with products that have not been recalled

1. If NECC products – treat as Category B
2. If not NECC products – treat as Category C

Recommendations about therapeutic options for those with suspected or confirmed infections associated with this outbreak are complex. Any therapeutic decision should be made jointly with experts in Infectious Disease as well as with the consultation of NH DPHS experts.

***Guidance for sample testing for patients with suspected meningitis/ stroke/ abscess associated with the outbreak:**

CSF specimen:

1. Testing by the usual lab used by the provider and results reported to DPHS as soon as available (listed by priority):

Priority #1: Basic evaluation: chemistry: glucose, protein
Cell count and differential

Bacterial & Fungal evaluation: gram stain
bacterial cultures - aerobic, anaerobic
fungal smear and culture
Fungal DNA PCR if possible
CSF galactomannan testing if possible

Priority #2: AFB smear and mycobacterial culture

Please hold all cultures for at least 2 weeks prior to discarding

**NH Department of Health and Human Services, Division of Public Health Services
Bureau of Infectious Disease Control**

2. Save 1-5cc of unspun CSF in a sterile CSF tube, refrigerated for future testing by PHL or CDC. This is part of the testing prioritized as #1. Contact PHL (271-4661 or Jill Power: 271-5869) to arrange for a non urgent courier pick up. All specimens should be sent with a completed NH PHL requisition form and indicate “referral, fungal meningitis outbreak” on the form.

Blood workup should include: blood cultures (aerobic, anerobic, fungal, mycobacterial) and galactomannan in serum if possible

In cases of abscess - aspirate the abscess and send the above tests listed for CSF including fungal smear.

****full list of NECC original and expanded recalled products can be found at:**
<http://www.fda.gov/Drugs/DrugSafety/ucm322752.htm>

Currently known products that were distributed to NH facilities:

1. Betamethasone
2. Triamcinolone
3. Glycerin 100%
4. Methylprednisolone

This NH DPHS Clinical Guidance will be updated as the events of the outbreak warrant.



NH PUBLIC HEALTH LABORATORIES
 DEPARTMENT OF HEALTH AND HUMAN SERVICES
 29 Hazen Drive, Concord, NH 03301
 Telephone: 603-271-4661, Fax: 603-271-2138
CLINICAL LABORATORY TEST REQUISITION

SUBMITTER INFORMATION - Please Print Legibly

Submitter Facility Code: _____
 Submitter Facility Name: _____
 Address: _____
 City: _____ State: _____ Zip: _____
 Telephone No.: _____ Fax No.: _____
 Physician (Full Name): _____
 National Provider Identifier #: _____
 VT Medicaid Provider #: _____

PATIENT INFORMATION - Please Print Legibly

NOTE: All specimens MUST have Date of Birth and Date of Collection
 Medicaid patients need Medicaid #, ICD-9 (Diagnosis) Code for billing purposes

Last Name: _____
 First Name: _____
 D.O.B: _____ Age: _____ Sex: M F
 MM/DD/YY
 Address: _____
 City: _____ State: _____ Zip: _____
 Patient Tel #: _____
 Patient Medicaid #: _____ State: __NH__VT
 ICD-9 CM / Diagnosis (DX) Code: _____
 Race: WHITE BLACK ASIAN NATIVE-American/Alaskan MULTIRACIAL
 HAWAIIAN/PACIFIC ISLANDER UNKNOWN OTHER
 Ethnicity: NON-HISPANIC HISPANIC UNKNOWN
 ID #: _____

SPECIMEN INFORMATION

DATE of specimen collection: _____
 TIME of specimen collection: _____ AM PM

SITE/SOURCE of Specimen (please check):

- Serum _____ Rectal _____
- Capillary Whole Blood _____ Stool _____
- Venous Whole Blood _____ Throat _____
- Sputum _____ Urethra _____
- Induced Sputum _____ Urine _____
- Bronchial Washing _____ Other _____
- CSF _____ (Specify)
- Cervix _____ Tissue _____
- Nasopharyngeal _____ (Specify)
- Oral Fluid _____ Fluid _____
- _____ (Specify)

Lab Use Only

____ Clinical Spec ____ EDTA ____ Isolate ____ Slides
 ____ SST ____ Swab ____ Transfer Tube ____ Viral Transport

TEST LIST

**NOTE: Ab=Antibody
 Ag=Antigen**

CHEMISTRY

- Arsenic, Urine
- Mercury, Urine

BACTERIAL CULTURE

- Aerobic
- Anaerobic
- Antibiotic Susceptibilities
- Bacterial ID: _____
- Aerobic or Anaerobic
- Enteric Culture
 - o Screen (Salm, Shig)
 - o Full (Salm, Shig, Campy, Aero, Plesio, EHEC, Yersinia)
 - o Special: _____
- EPI/Confirmation: _____
- R/O: _____
- Shiga-like Toxins

CHLAMYDIA

- Amplified
- Culture

GONORRHEA

- Amplified
- Culture
- Confirmation

HEPATITIS

- A IgM Ab
- A Total Ab
- B Core IgM Ab
- B Core Total Ab
- B Surface Ab
- B Surface Ag
- C Ab - Screen
- C Genotyping

HIV

- HIV 1/2/Group O - Screen
- HIV Western Blot - (Confirmation)

LEGIONELLA

- Culture
- DFA
- Urinary Ag

MYCOBACTERIA

- TB (AFB) Smear/Culture
- TB Susceptibilities
- Mycobacteria ID

MYCOLOGY

- Cryptococcal Ag
- Fungal Culture
- Fungal Susceptibilities
- Mold ID
- Yeast ID

OUTBREAK INFO:

_____ Check here if part of an outbreak.
 Outbreak comments: _____

PARASITOLOGY •

- ♦ Travel history _____
- Blood Parasite
- Cryptosporidium
- Giardia
- Cyclospora/Isospora/Sarcocystis
- Microsporidium
- Ova and Parasites
- Pneumocystis DFA

PERTUSSIS

- Culture
- PCR

MISCELLANEOUS

- Arbovirus (WNV, EEE, SLE)
- Herpes 1&2 IgG Ab
- Influenza - PCR/Culture
- Lyme - Screen
- Lyme - Confirmation
- Measles (Rubeola) IgG
- Measles (Rubeola) IgM
- Mumps IgG
- Norovirus (Norwalk)
- Rubella IgG
- Rubella IgM
- Varicella-Zoster IgG

SYPHILIS

- RPR - Qual - Screen
- RPR - Quant - Titer
- TP-PA
- VDRL (CSF only)

VIRAL CULTURE (ONLY)

- Cytomegalovirus
- Enterovirus
- Herpes
- Mumps
- Respiratory
- Varicella-Zoster
- Other _____

PHL LAB USE ONLY

This is an official
CDC Health Advisory

Distributed via Health Alert Network
October 4, 2012, 17:05 ET (5:05 PM ET)
CDCHAN-00327-2012-10-04-UPD-N

**Meningitis and Stroke Associated with
Potentially Contaminated Product**

Summary

The Centers for Disease Control and Prevention (CDC) and the Food and Drug Administration (FDA) are coordinating a multi-state investigation of fungal meningitis among patients who received an epidural steroid injection. Several of these patients also suffered strokes that are believed to have resulted from their infection. As of October 4, 2012, five deaths have been reported. Fungal meningitis is not transmitted from person to person. These cases are associated with a potentially contaminated medication. Investigation into the exact source is ongoing; however, interim data show that all infected patients received injection with preservative-free methylprednisolone acetate (80mg/ml) prepared by New England Compounding Center, located in Framingham, MA.

Background

On September 21, 2012, CDC was notified by the Tennessee Department of Health of a patient with the onset of meningitis approximately 19 days following epidural steroid injection at a Tennessee ambulatory surgery center (ASC). Initial cultures of cerebrospinal fluid (CSF) and blood were negative; subsequently, *Aspergillus fumigatus* was isolated from CSF by fungal culture. On September 28, investigators identified a case outside of Tennessee, possibly indicating contamination of a widely distributed medication. As of October 4, a total of 35 cases* in the following six states have been identified with a clinical picture consistent with fungal infection: Florida (2 cases), Indiana (1 case), Tennessee (25 cases, including 3 deaths), Maryland (2 cases, including 1 death), North Carolina (1 case), and Virginia (4 cases, including 1 death). Fungus has been identified in specimens obtained from five patients, one of whom also had *Propionobacterium acnes*, of unclear clinical significance, isolated from a post-mortem central nervous system specimen.

Infected patients have presented approximately 1 to 4 weeks following their injection with a variety of symptoms, including fever, new or worsening headache, nausea, and new neurological deficit (consistent with deep brain stroke). Some of these patients' symptoms were very mild in nature. CSF obtained from these patients has typically shown elevated white cell count (with a predominance of neutrophils), low glucose, and elevated protein.

Recommendations

On September 25, 2012, the New England Compounding Center located in Framingham, MA voluntarily recalled the following lots of methylprednisolone acetate (PF) 80mg/ml:

- Methylprednisolone Acetate (PF) 80 mg/ml Injection, Lot #05212012@68, BUD 11/17/2012
- Methylprednisolone Acetate (PF) 80 mg/ml Injection, Lot #06292012@26, BUD 12/26/2012
- Methylprednisolone Acetate (PF) 80 mg/ml Injection, Lot #08102012@51, BUD 2/6/2013

On October 3, 2012, the compounding center ceased all production and initiated recall of all methylprednisolone acetate and other drug products prepared for intrathecal administration.

Physicians should contact patients who have had an injection (e.g., spinal, joint) using any of the three lots of methylprednisolone acetate listed above to determine if they are having any symptoms. Although all cases detected to date occurred after injections with products from these three lots, out of an abundance of caution, CDC and FDA recommend that healthcare professionals cease use of **any** product produced by the New England Compounding Center until further information is available.

For patients who received epidural injection and have symptoms of meningitis or basilar stroke, a diagnostic lumbar puncture (LP) should be performed, if not contraindicated. Because presenting symptoms of some patients with meningitis have been mild and not classic for meningitis (e.g., new or worsening headache without fever or neck stiffness), physicians should have a low threshold for LP. While CDC is aware of infections occurring only in patients who have received epidural steroid injections, patients who received other types of injection with methylprednisolone acetate from those three lots should also be contacted to assess for signs of infection (e.g., swelling, increasing pain, redness, warmth at the injection site) and should be encouraged to seek evaluation (e.g., arthrocentesis) if such symptoms exist.

For guidance on diagnostic testing that should be performed on patient specimens, physicians can go to <http://www.cdc.gov/hai/outbreaks/meningitis.html>. State health departments should be informed of patients undergoing evaluation. Clinicians should report any suspected adverse events following use of these products to FDA's MedWatch program at 1-800-332-1088 or www.fda.gov/medwatch.

***Case Definition**

- 1: A person with meningitis¹ of sub-acute onset (1-4 weeks) following epidural injection after July 1, 2012.
- 2: A person, who has not received a lumbar puncture, with basilar stroke 1-4 weeks following epidural injection after July 1, 2012².
- 3. A person with evidence of spinal osteomyelitis or epidural abscess at the site of an epidural injection diagnosed 1-4 weeks after epidural injection after July 1, 2012.

¹clinically diagnosed meningitis meaning 1 or more of the following symptoms: headache, fever, stiff neck, or photophobia **and** a CSF profile consistent with meningitis (elevated protein/low glucose/pleocytosis)

²These people, if possible, should have an LP.

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Categories of Health Alert messages:

- Health Alert** conveys the highest level of importance; warrants immediate action or attention.
- Health Advisory** provides important information for a specific incident or situation; may not require immediate action.
- Health Update** provides updated information regarding an incident or situation; unlikely to require immediate action.

##This Message was distributed to State and Local Health Officers, Public Information Officers, Epidemiologists and HAN Coordinators as well as Clinician organizations##

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You have received this message based upon the information contained within our emergency notification data base. If you have a different or additional e-mail or fax address that you would like us to use please contact your State-based Health Alert Network program at your State or local health department.

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Case Definitions: Multistate Outbreak Associated with Injection of Potentially Contaminated Steroid Products

As of October 6, 2012,

1. A person with meningitis¹ of sub-acute onset (1-4 weeks) following epidural injection after May 21, 2012.
2. A person with basilar stroke 1-4 weeks following epidural injection after May 21, 2012², who has not received a diagnostic lumbar puncture.
3. A person with evidence of spinal osteomyelitis or epidural abscess at the site of an epidural injection diagnosed 1-4 weeks after epidural injection after May 21, 2012.
4. A person with septic arthritis³ diagnosed 1-4 weeks following steroid joint injection after May 21, 2012.

¹Clinically diagnosed meningitis meaning 1 or more of the following symptoms: headache, fever, stiff neck, or photophobia **and** a CSF profile consistent with meningitis (pleocytosis +/- low glucose, elevated protein).

²These people, if possible, should have a lumbar puncture.

³Clinically diagnosed septic arthritis meaning new or worsening pain with presence of effusion or new or worsening effusion.