



PREVENTION OPPORTUNITIES UNDER THE BIG SKY

CONTAMINATED PRODUCT CAUSES FUNGAL MENINGITIS: PUBLIC HEALTH RESPONSE, MONTANA

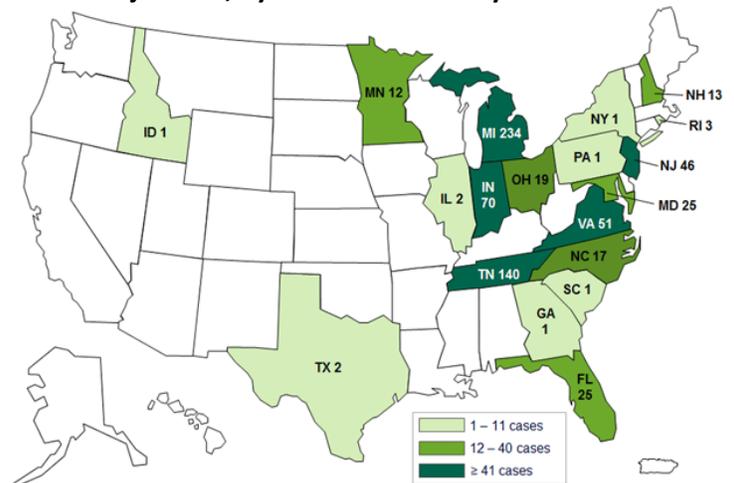
In September 2012 the Tennessee Department of Health (TDH) received a report of a patient with meningitis caused by fungus (one of the *Aspergillus* species). The patient had no known risk factors although had received a lower back epidural steroid injection six weeks earlier. The TDH in collaboration with the Centers for Disease Control and Prevention (CDC) initiated an investigation and within days identified seven additional patients with fungal meningitis and recent epidural steroid injection. The investigation expanded to identify a multi-state outbreak of fungal infections due to use of contaminated steroid products from a compounding pharmacy in Massachusetts, the New England Compounding Center (NECC). By January 2013 cases (664) had been identified in 19 states. (Figure) While no case was identified in Montana a substantial public health response occurred. This issue of *Montana Public Health* describes that response and illustrates how a wide range of partners in the Montana public health system work together, often behind the scenes with little recognition, to protect the health of Montanans.

Distribution of NECC Products in Montana Initial reports and subsequent testing conducted by the CDC and the Food and Drug Administration (FDA) implicated three lots of a specific product – an injectable steroid known as preservative-free methylprednisolone acetate (MPA) produced by the NECC. Montana was fortunate; none of these lots of MPA were received in the state. Unfortunately, the FDA did notify the Montana Department of Public Health and Human Services (DPHHS) that NECC was a prolific shipper of other products to Montana providers. The FDA’s initial list indicated two large providers received NECC products; later lists would indicate at least 12 clinics received products. Due to the nature of the products and the regional reach of these clinics- virtually every county in the state appeared to be impacted. *Lessons learned: even with only one source of products, few if any states may be spared when a contaminated product is released. Depending on the record system, or lack of, it may be laborious to determine what has been shipped to where.*

Public Health and the “Abundance of Caution” While no product known to be contaminated was shipped to Montana, a review of NECC operations led to reasonable concerns that any product recently produced could pose a substantial risk to human health. In what was termed an “abundance of caution”, the FDA and CDC advised all states to encourage providers using virtually any NECC product to contact patients for whom a product had been used. Providers throughout Montana identified and contacted an estimated 4,500 recipients of NECC products to determine if an adverse event had

occurred. In close collaboration with local public health agencies, it was determined that no concerns related to NECC products were identified. *Lesson learned: Local public health agencies and clinicians throughout the state can collaborate in a timely way to identify, notify and respond to the concerns of recipients of potentially contaminated products.*

Figure. Persons with Fungal Infections Linked to Epidural Steroid Injections, by State as of January 2013¹



Public Health Communications and the Health Alert Network (HAN) As the national investigation into NECC products continued, items in addition to MPA began to appear on the “watch list”. What began as an outbreak of meningitis extended in scope as patients were identified with other infections related to NECC products.

As a result, frequent communication from public health authorities was necessary to keep providers informed regarding the products of concern and complications that could occur months after use of the product. National, state and local Health Alert Network (HAN) systems were used to share pertinent information with health care providers. HAN systems allow rapid sharing of information and recommendations from public health agencies. Determining what is HAN-worthy is often an art; ensuring that important information reaches the intended recipients in a timely way is the goal. In this case, public health authorities sent frequent messages as the range of diagnoses and number of NECC products of concern expanded. *Lesson learned: HAN messages at the*

federal, state and local level can be rapidly developed and sent to key recipients.

Application to Other Events Montana has been fortunate and no recipient of an NECC product has reported an adverse event. The actions taken by CDC, FDA, clinicians and Montana public health agencies to assess patient status demonstrates that systems are in place to quickly assess the impact of a drug or food product that may pose a risk to the public's health. Even when working well, systems related to the reporting and investigation of public health threats can always be improved. The recommendations below may further enhance the recognition of key health events and the timeliness of the response system.

Recommendations:

- Report notifiable diseases and unusual health events to your local public health authority immediately. Lists of reportable diseases and contact information can be readily obtained from your local public health agency or at the DPHHS website: <http://www.dphhs.mt.gov/publichealth/>
- Clinicians should confirm they are receiving messages from the Health Alert Network (HAN) system through their local public health agency or other local contact (i.e. hospital or clinic administration). If you do not receive HAN messages contact your local public health department to become a recipient.
- Local public health agencies and health care providers are encouraged to establish key contacts with one another to facilitate efficient sharing of information during routine and emergent public health events.
- For additional information on this event see *Fungal Infections Associated with Contaminated Methylprednisolone Injections- Preliminary Report*.²

For more information, contact the Communicable Disease Section at 406-444-0273 or <http://www.cdc.gov/hai/outbreaks/meningitis.html>.

References:

1. Centers for Disease Control and Prevention. <http://www.cdc.gov/gai/outbreaks/meningitis.html>
2. Smith RM, et al. Fungal infections associated with contaminated methylprednisolone infections - - preliminary report. NEJM 2012, DOI:10.1056/NEJM Moa 1213978

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