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Denise Cardo, MD
Director, Division of Healthcare Quality Promotion
National Center for Emerging and Zoonotic Infectious Diseases
Centers for Disease Control and Prevention
1600 Clifton Road
Atlanta, GA 30333

Dear Dr. Cardo,

During December 29, 2015 through January 4, 2016, The Wisconsin Division of Public Health (WDPH) was notified of 6 cases of *Elizabethkingia* bloodstream infections among patients who were residents of 4 Wisconsin counties. These 6 patients were admitted to 3 different hospitals, and each had signs and symptoms of sepsis. Blood specimens for culture were obtained at or shortly after the time of admission and all were positive for *Elizabethkingia* that was initially speciated as *E. meningoseptica* at the Wisconsin State Laboratory of Hygiene (WSLH). *Elizabethkingia* are gram-negative bacilli that are intrinsically multidrug-resistant, and the cause of invasive infections that are associated with high mortality rates (estimates of mortality associated with *Elizabethkingia* infections range from 23 to 52%). Most *Elizabethkingia* infections occur in healthcare settings; however, community-acquired cases of sepsis have been reported.

On January 5, 2016, the Centers for Disease Control and Prevention (CDC) was notified by the Wisconsin Division of Public Health (WDPH) of the 6-case cluster of *Elizabethkingia* infections that were initially diagnosed as *E. meningoseptica* infections. The initial isolates sent to the WSLH were confirmed as *E. meningoseptica*, but were subsequently determined at the CDC to be *E. anophelis*. Previously *E. anophelis* infections had been rarely reported.

Following identification of the initial cluster, WDPH staff initiated epidemiologic, laboratory and environmental investigations to further characterize demographic and epidemiologic features and determine risk factors and potential reservoirs for infection. WDPH initiated a statewide surveillance for *Elizabethkingia* spp. isolated from sterile site specimens processed January 1, 2014 to the present. All available isolates were shipped to the WSLH for further testing that included pulsed field gel electrophoresis (PFGE). An outbreak strain of *E. anophelis* was identified and characterized.

A joint CDC-WDPH investigation detected 66 cases of primarily community-associated infections, all occurred among residents of southeastern Wisconsin (n=63), northeastern Illinois (n=2), or western Michigan (n=1), with specimen collection dates from November 23, 2015 to May 30, 2016; 59 patients had bloodstream infections. Patients had a variety of healthcare and community exposures and co-morbid conditions. Hypothesis generating interviews, structured interviews and environmental sampling did not identify a food, water source, personal care product, healthcare product or healthcare setting as a point source of *E. anophelis*.

Although the reported number of infections is decreasing, the number of reported infections during March 31, 2016, through May 30, 2016 was 9 which exceeds the baseline of 3-5 cases of *Elizabethkingia* infection per calendar quarter. Identifying a potential point source of *E. anophelis* is critical to prevent new infections and respond to a potential recrudescence of infections in Wisconsin. Focus group interviews with small sub-clusters of patients may help identify a common, shared exposure missed by traditional outbreak investigation approaches.

We are requesting technical assistance from CDC to assist with: 1) the identification of potential exposures through patient focus group interviews, and 2) the application of findings from activity 1 to generate prevention and control measures. These focus group activities will occur under the direction and supervision of the Wisconsin Division of Public Health. The Wisconsin Division of Public Health will retain ownership of all data collected.

Sincerely,



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