

DECEMBER 20, 2017

HEALTH ADVISORY***Kingella kingae* Infections Among Child-care Attendees****Background**

Monday, Dec. 18, the North Dakota Department of Health (NDDoH) received a report from a physician regarding one confirmed case and one suspected case of osteomyelitis caused by the gram-negative bacteria *Kingella kingae*. Both cases attend the same child-care center located in Valley City.

K. kingae is a fastidious organism that can cause osteomyelitis, septic arthritis, bacteremia without focus, endocarditis and meningitis. Outbreaks of invasive disease among otherwise healthy children ages six to 36 months have been associated with child-care centers. Oropharyngeal colonization can occur among children in this age group and is the source of invasive *K. kingae* infections. Once invasive infection is diagnosed in a child, consideration for chemoprophylaxis of child-care contacts is warranted.

Recommendations

The NDDoH is recommending that all children who attend the same child-care center as the two cases receive chemoprophylaxis. The parents or guardians of these children have received a letter from the NDDoH advising them to consult their primary healthcare provider for appropriate antimicrobial prophylaxis. Dual therapy with rifampin and amoxicillin should be considered. Rifampin should be given 10 mg/kg every 12 hours for two days and amoxicillin is recommended at a dosage of 40 mg/kg twice a day for 4 days.

Clinicians should consider *K. kingae* infections in patients 6 to 36 months of age who present with symptoms of any of the above syndromes. A high level of suspicion needs to be maintained. Infections may be difficult to diagnose because many children do not appear to be severely ill. Fever may be absent or low-grade. Acute phase reactants may be normal or only moderately elevated. Diagnosis can be confirmed by culture or DNA amplification of blood, synovial fluid or bone exudate. The use of blood culture vials improves recovery of this organism. Invasive illness outside of this age range is rare, but can occur in patients with underlying health issues. Consultation with an infectious disease physician is recommended regarding clinical case management and treatment.

Suspect cases that may be associated with child care attendance should be reported immediately to the NDDoH. Reports can be made by calling 1.800.472.2180 or 701.328.2378. Laboratories should keep specimens and isolates for possible nucleic acid and genomic evaluation facilitated by the NDDoH Division of Microbiology Lab 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; no immediate action necessary.*
- *Health Information provides general information that is not necessarily considered to be of an emergent nature.*

This message is being sent to local public health units, clinics, hospitals, physicians, tribal health, North Dakota Nurses Association, North Dakota Long Term Care Association, North Dakota Healthcare Association, North Dakota Medical Association, and hospital public information officers.