

**Health Advisory: *Shigella* and *Bartonella quintana* Infections in Persons Experiencing Homelessness in King County, 23 FEB 2018**

**Actions requested: Be aware of recent cases of *Shigella* and *Bartonella quintana* infections among persons experiencing homelessness.**

***Shigella***

- Consider *Shigella* infection in patients with compatible symptoms, including diarrhea (bloody or non-bloody), fever, and abdominal pain.
- For patients with symptoms compatible with *Shigella* infection:
  - Order stool culture with antimicrobial susceptibility testing (AST); culture-independent diagnostic testing does not provide an isolate for AST.
  - When AST is performed by broth microdilution, request ciprofloxacin testing that includes dilutions of 0.12 µg/mL or lower.
  - Although antibiotic therapy is not routinely recommended for mild infections, it should be prescribed for patients with more severe illnesses and when there is elevated concern about transmission to others (e.g., in congregate living situations) and in outbreak settings (consult with Public Health).
- **Gather information about risk factors** (exposure period is typically 1 to 7 days before symptom onset) including travel history, housing situation and location, sexual history and potential exposed contacts.
- **Counsel patients with diarrhea on how they can prevent spreading the infection to others:**
  - Wash hands with soap and water for at least 20 seconds, especially after using the toilet, after handling a soiled diaper, and before eating or preparing food; avoid preparing food for others.
  - Children with active diarrhea should not attend childcare, school, or group activities while ill.
  - Wait to have sex (vaginal, anal and oral) for at least one week (several weeks is preferable) after diarrhea has resolved because *Shigella* may still be in stool for several weeks.
  - People with *Shigella* should be excluded from food handling, childcare settings and administering patient care until follow-up is completed by Public Health.

**Background:** *Shigella* cases have been increasing in King County since 2013 with a total of 164 cases reported in 2017 compared to an average of 89 cases/year over the past 5 years. Overall, MSM and HIV-positive men are at highest risk (attributed to sexual contact), followed by international travelers. Although outbreaks of *Shigella* have been reported among persons experiencing homelessness in other cities, until recently, *Shigella* cases among persons experiencing homelessness have been uncommon in King County. Since December 2017, eight cases of *Shigella* (all *S. flexneri*) among persons experiencing homelessness (one case also reported to be MSM) have been reported in King County compared to an average of three cases of *Shigella* infection per year over the past five years among persons experiencing homelessness. Antimicrobial susceptibility test results are available for five of the cases and all are susceptible to ciprofloxacin. No specific location has been linked to the recent infections, though several of the cases have resided in the SODO or Georgetown area of Seattle. Recent cases have reported staying in a number of settings including in recreational vehicles or motorhomes, in shelters, in encampments, and living on the street. *Shigella* is easily spread person-to-person through the fecal-oral route and through sexual contact, especially in situations with limited access to hygiene facilities. Persons at higher risk of *Shigella* infection include men who have sex with men, people whose immune systems are weakened due to illness such as HIV or medical treatment such as chemotherapy, young children, and travelers to developing countries. People with weakened immune systems are also more likely to develop serious illness, including bacteremia.

- **Call Public Health at (206) 296-4774 to report suspect or confirmed *Shigella* and *Bartonella* cases and for guidance on when *Shigella* patients may return to childcare, school, or work.**

**Health Advisory (page 2/2): *Shigella* and *Bartonella quintana* Infections in Persons Experiencing Homelessness in King County, 23 FEB 2018**

***Bartonella Quintana:***

- **Be aware of the possibility of *B. quintana* infection in persons experiencing homelessness.**
- The clinical presentation ranges from an acute to sub-acute (“trench fever like”) illness that may be mild to severe, with fever, malaise, headache, dizziness, bone pain (particularly of the shins), splenomegaly, nausea, vomiting, and, in some cases, a macular truncal rash. Bacteremia can be chronic and lead to endocarditis.
- In HIV-infected persons, *B. quintana* causes bacillary angiomatosis, with cutaneous lesions, subcutaneous masses, or bone lesions.
- **Diagnostic tests include blood (or tissue) culture and PCR in combination with serological testing – consult with your clinical lab and/or infectious disease specialist when ordering diagnostic tests.**
- The treatment plan should be made in consultation with an infectious disease specialist or other expert in the treatment of *Bartonella* infections.

**Background:** *Bartonella quintana* infections are transmitted by body lice that live in infested clothing and bedding, and that bite, but do not live on, human bodies. Outbreaks have been described among urban homeless populations, including in Seattle (*Jackson L, Spach D. Emergence of Bartonella quintana Infection among Homeless Persons. Emerg Infect Dis. 1996;2(2):141-144. <https://dx.doi.org/10.3201/eid0202.960212>*). Three cases of *Bartonella quintana* among persons experiencing homelessness in King County have been reported since mid-2017 (one other case was reported in an HIV-positive patient without a history of homelessness). All the patients were hospitalized, two had endocarditis, and one had bacteremia with bacillary angiomatosis. There is no identified common source for these cases. Shelters and other providers of services to persons experiencing homelessness have been provided with guidance regarding identification and control of lice infestations

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**Resources:**

- Health Advisory from 4/18/17 with CDC recommendations for diagnosing and managing *Shigella* strains with possible reduced susceptibility to ciprofloxacin:  
<https://www.kingcounty.gov/depts/health/communicable-diseases/health-care-providers/~media/depts/health/communicable-diseases/documents/advisories/2017/health-advisory-april-18-2017.ashx>
  - CDC *Shigella* site: <https://www.cdc.gov/shigella/>
  - Public Health *Shigella* info: <http://www.kingcounty.gov/depts/health/communicable-diseases/disease-control/shigellosis.aspx>
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- Clinical features, diagnosis and management of *Bartonella quintana* UpToDate (subscription required) <https://www.uptodate.com/contents/clinical-features-diagnosis-and-treatment-of-bartonella-quintana-infections>
  - *Bartonella quintana* characteristics and clinical management <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3373112/>
  - King County Shelter Health & Safety Guidance (including lice control): <https://www.kingcounty.gov/depts/health/locations/homeless-health/healthcare-for-the-homeless/~media/depts/health/homeless-health/healthcare-for-the-homeless/documents/shelter-health-safety-guidelines.ashx>