



DEPARTMENT OF  
**HEALTH AND HUMAN SERVICES**

Promoting and protecting health, well-being, self-sufficiency, and safety of all in Marin County.



## **PUBLIC HEALTH ADVISORY**

October 23, 2015

Grant Nash Colfax, MD  
DIRECTOR

### **Shigella sonnei Outbreak Associated with Restaurant in San Jose**

Matthew Willis, MD, MPH  
PUBLIC HEALTH OFFICER

Dear Colleagues:

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DEPUTY PUBLIC HEALTH OFFICER

#### **Current Situation**

On Saturday afternoon, October 17th, 2015, the Santa Clara County Public Health Department began investigating an outbreak of *Shigella sonnei* infections associated with **Mariscos San Juan #3 restaurant** (205 N. 4th Street) in downtown **San Jose**. Most of the ill persons ate at the restaurant on Friday, October 16 or Saturday, October 17. The restaurant has been closed since October 18. As of 5:00 p.m. last night (October 22, 2015) the number of outbreak associated cases of Shigella reported to Santa Clara County Public Health Department (SCCPHD) has risen to **141**; 23 reported cases are people who live in other counties, including **4 Marin County residents**.

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#### **Background Information**

Shigellae are Gram-negative, non-motile, non-spore forming, rod-shaped highly infectious bacteria. Just 10–100 organisms are sufficient to cause disease. Infection is initiated by ingestion of shigellae (usually via fecal-oral contamination). An early symptom, diarrhea, may occur as the organisms pass through the small intestine. The hallmarks of shigellosis are bacterial invasion of the colonic epithelium and inflammatory colitis. Shigellosis can be quite severe, especially in young children, the elderly, and those with weakened immune systems.

#### **Actions Requested of Clinicians**

1. Suspect *Shigellosis* in persons presenting with fever and diarrhea who ate at Mariscos San Juan at the 4th Street location, or who had contact with an ill person.
2. Test with stool culture and order antimicrobial susceptibility testing. If patient is ill enough to require hospitalization, obtain blood culture.
3. Tailor therapy based on results of susceptibility testing, recognizing that routine antimicrobial susceptibility tests for *Shigella* may not include some commonly available oral antibiotics.
4. Report suspect cases to the Marin County Health and Human Services Communicable Disease Unit at 415-473-7805
5. Fax in a Confidential Morbidity Report 110 a form (CMR). Download form at <https://www.marinhhs.org/sites/default/files/forms/cmr-marin-cdph110a.pdf> and fax to 415-473-6002

6. Enroll in CalREDIE for access to web-based CMR reporting. Learn more at <https://www.marinhhs.org/communicable-disease-prevention-control-unit>
7. Educate patients about the importance of meticulous hand washing and avoiding any activities that could create opportunities for fecal-oral spread. If your patient is a food handler, child or elder care worker, or a healthcare worker, please notify us when you report the case.

### Clinical Presentation

*Shigella* infection can be subclinical, but typically causes watery or bloody diarrhea with abdominal pain, fever, tenesmus, and malaise. Transmission occurs via the fecal-oral route and can be spread by eating food prepared by an infected food handler or by direct person-to-person contact. Sexual transmission may also occur.

Although *Shigella gastroenteritis* is generally self-limited, lasting 5–7 days in an immunocompetent host, **untreated individuals may shed the organism in stool for up to 6 weeks**. Shortening the duration of shedding with antibiotics can reduce the risk of person-to-person spread. Due to growing antimicrobial resistance in both developing and developed countries, antibiotic susceptibility testing is essential.

### Infection Prevention and Control

Currently, there is no vaccine to prevent shigellosis. However, advise patients to reduce your risk of getting shigellosis by:

- o Carefully washing hands with soap before eating and after diaper changes.
- o If caring for child in diapers who has shigellosis, promptly discard the soiled diapers in a lidded, lined garbage can, and wash hands and the child's hands carefully with soap and water immediately after changing the diapers. Any leaks or spills of diaper contents should be cleaned up immediately.
- o Safe & Healthy Diapering in the Home  
(<http://www.cdc.gov/healthywater/hygiene/diapering/in-the-home.html>)
- o Diaper-Changing Steps for Childcare Settings  
(<http://www.cdc.gov/healthywater/hygiene/diapering/childcare.html>)

Also, advise patients to avoid sexual activity with those who have diarrhea or who recently recovered from diarrhea.

### Laboratory Testing

1. *Shigellae* form non-lactose fermenting pale colored or colorless colonies on MacConkey's agar or EMB agar or DCA. *S. sonnei* forms pink colonies.
  2. Xylose Lysine Desoxycholate (XLD) Agar: *Shigellae* produce red-pink colonies without black centers.
  3. Salmonella-Shigella (SS) agar: Despite its name, this medium is not suitable for isolating *shigellae* as it is inhibitory to most strains.
- On Triple Sugar Iron (TSI) agar test, they cause an alkaline slant and an acid butt, with no gas and no Hydrogen sulfide. Confirmation of the organism as *Shigella* and determination of its group are done by slide agglutination test.

For testing questions please contact the Public Health Laboratory at 707-784-4410. Clinicians utilizing private labs should consult with the individual laboratories for instructions.

### Treatment

Diarrhea caused by *Shigella* usually resolves without antibiotic treatment in 5 to 7 days. People with mild shigellosis may need only fluids and rest. Bismuth subsalicylate (e.g., Pepto-Bismol®) may be helpful, but medications that cause the gut to slow down, such as loperamide (e.g., Imodium®) or diphenoxylate with atropine (e.g., Lomotil®), should be avoided. Antibiotics are useful for severe cases of shigellosis because they can reduce the duration of symptoms. However, *Shigella* is often resistant to antibiotics. Evidence is insufficient to consider any class of antibiotic superior in efficacy in treating *Shigella* dysentery. The following antibiotics are used to treat *Shigella* dysentery:

- Beta-lactams: Ampicillin, amoxicillin, and third-generation cephalosporins (cefixime, ceftriaxone)
- Quinolones: Nalidixic acid, ciprofloxacin, norfloxacin, and ofloxacin
- Macrolides: Azithromycin
- Others: sulfonamides, tetracycline, cotrimoxazole, and furazolidone.

Most clinical infections with *S sonnei* are self-limited (48-72 h) and may not require antimicrobial therapy.

### Reporting

*Shigella* is a reportable disease under the California Code of Regulations, Title 17, Section 2505 due to its public health importance. Clinicians must report suspect *Shigella* cases, and laboratories must report positive *Shigella* lab results, to the Marin County HHS Communicable Disease Unit **within one working day** by fax (415-473-6002) or phone (415-473-7805). In reporting, clinicians should complete and fax a ***Confidential Morbidity Form (CMR)***. NOTE: Clinicians using a private lab should complete and submit the CMR, along with the positive lab report.

### Additional Information

For additional information about shigella, please visit the CDC website:  
<http://www.cdc.gov/shigella/resources.html>

Details about the investigation are on the Santa Clara County Public Health Department website: <http://www.sccphd.org>

Sincerely,



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Deputy Public Health Officer