LISTERIOSIS HEALTH ADVISORY UPDATE

Date: July 18, 2016
To: All Sutter County Physicians, Medical and Nursing Directors, Emergency and Urgent Care Clinics; Hospitalists, Nurse Practitioners, Physicians Assistants, Occupational Health Services, Infection Control Specialists, Clinical Lab Managers
From: Lou Anne Cummings, MD, MPH, Health Officer, Sutter County Public Health
RE: Increase in listeriosis cases and local outbreak

Situation:
Between mid-February and the end of June, 2016, two Sutter County residents have been diagnosed with listeriosis. These are the first confirmed cases of listeriosis in Sutter County since 2012. In addition, 4 persons from nearby counties have also been diagnosed with the same strain of listeriosis in the same time period, for a total of 6 linked cases in the region. Affected persons range in age from 42 - 81 years. Sutter County Public Health Division (SCPH) is collaborating with California Department of Public Health (CDPH) and neighboring local health departments to determine a potential common source of infection. Epidemiologic studies and laboratory testing are underway.

Listeriosis is acquired through food items contaminated with *Listeria monocytogenes*. Lunch meats, soft cheeses, raw milk products, and produce, have been implicated in past outbreaks. Unlike most bacteria, *Listeria* can grow and multiply in some foods at refrigerator temperatures.

No source has yet been identified for this outbreak, and this outbreak has not been linked to any specific food recall at this time. However, several regional and national food recalls are underway due to contamination with other strains of *Listeria monocytogenes*.

Additional patients can be expected to present with possible listeriosis symptoms, or other gastrointestinal symptoms (nausea, vomiting, abdominal cramping, diarrhea) and may be concerned about having *Listeria*.

Presentation and possible complications:
The incubation period for listeriosis is 3-70 days, with an average of three weeks. In otherwise healthy patients, listeriosis is asymptomatic or presents as acute febrile gastroenteritis. Pregnant women typically are asymptomatic or experience a non-specific illness, with fever, headache, myalgia, and/or gastrointestinal symptoms, which may be followed by fetal loss, or bacteremia or meningitis in the newborn.

In older adults and people with immunocompromising conditions, the most common clinical presentations are septicemia and meningitis. Neonatal listeriosis usually presents as septicemia and meningitis; meningitis is more common with late onset, when the neonate is more than 1 week old. Meningoencephalitis can be sudden, with fever, intense headache, nausea, vomiting and signs of meningeal irritation; however it can also be subacute, especially in immunocompromised or elderly patients. Other symptoms may include stiff neck, confusion, loss of balance, convulsions, delirium and occasionally coma. Endocarditis, granulomatous lesions in the liver and other organs, localized internal or external
abscesses, septic arthritis or osteomyelitis, and pustular or papular cutaneous legions are rare, but possible additional symptoms.

Listeriosis is a serious medical condition with possible lifelong consequences. Roughly 18% patients with clinical listeriosis die. **Listeriosis is especially dangerous to pregnant women and newborn infants.** Listeriosis can lead to miscarriage, premature labor, the delivery of a low-birth-weight infant, or infant death. Fetuses who have a late infection may develop a wide range of health problems, including intellectual disability, paralysis, seizures, blindness, or impairments of the brain, heart, or kidney. In newborns, listeriosis can cause blood infections and meningitis, which can also cause mental retardation. 20-30% of neonates with listeriosis may die, and this may be as high as 50% for infants who develop listeriosis within the first four days of life.

**At-risk populations:**

Pregnant women, older adults, and people with weakened immune systems due to underlying medical conditions (i.e.: cancer, liver or kidney disease, diabetes, alcoholism, HIV/AIDS, immunosuppressive therapy) are at higher risk of severe disease due to listeriosis.

**Diagnostic and Public Health Laboratory testing:**

Diagnosis is based upon culture and isolation of *Listeria monocytogenes* from a normally sterile site. Stool samples are not recommended. **A negative culture does not rule out infection in the presence of strong clinical suspicion.**

Only symptomatic patients should be tested. Culture from a normally sterile site: blood, spinal fluid (with nervous system involvement), or amniotic fluid/placenta. Serological tests are unreliable and not recommended. Initial culture by a Public Health Laboratory is not required unless requested by the Health Officer or CDPH. *Listeria monocytogenes* can be isolated readily on routine media, but care must be taken to distinguish this organism from other Gram-positive rods, particularly diphtheroids.

Positive cultures are required to be forwarded to appropriate local and state public health laboratories for further testing to determine if patients are linked to this or other Listeria outbreaks.

**Treatment guidelines:**

Intravenous penicillin or ampicillin alone, or together with an aminoglycoside. Trimethoprim-sulfamethoxazole or erythromycin is preferred for penicillin-allergic patients. Cephalosporins, including third-generation cephalosporins, are not recommended. Tetracycline resistance has been observed.

**Required reporting of suspect and confirmed Listeria cases:**

As mandated under Section 2500 of the California Code of Regulations, providers must report all suspect or confirmed listeriosis cases to SCPH by phone and/or fax within 1 working day of identification. Confidential Morbidity Reports must be submitted by fax or through CalREDIE.

**Phone:** (530) 822-7215 and ask for the Communicable Disease Program

**Confidential fax:** (530)-822-5980

**Resources for health care providers**

- CDPH listeriosis website: [https://www.cdph.ca.gov/HealthInfo/discond/Pages/Listeriosis.aspx](https://www.cdph.ca.gov/HealthInfo/discond/Pages/Listeriosis.aspx)
- CDC resources for at-risk populations: [http://www.cdc.gov/listeria/resources.html](http://www.cdc.gov/listeria/resources.html)
- CDC food safety resources: [http://www.cdc.gov/listeria/prevention.html](http://www.cdc.gov/listeria/prevention.html)
- Food and Drug Administration (FDA) listeriosis quick sheet: [http://www.fda.gov/food/foodborneillnesscontaminants/causesofillnessbadbugbook/ucm070064.htm](http://www.fda.gov/food/foodborneillnesscontaminants/causesofillnessbadbugbook/ucm070064.htm)
- FDA food safety resources: [http://www.fda.gov/Food/ResourcesForYou/Consumers/ucm079667.htm](http://www.fda.gov/Food/ResourcesForYou/Consumers/ucm079667.htm)