



Communicable Diseases (CD) Quarterly Report

San Mateo County Health System
CD Control Program

- Provider Reporting: 650.573.2346 (phone) 650.573.2919 (fax) • Issue No. 33 • Data to September 30, 2015
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Table 1. Selected CD cases reported in San Mateo County

| Disease | 2015 | | 2014 | |
|-------------------------------------|----------|----------|----------|----------|
| | 3rd Qtr | YTD | 3rd Qtr | YTD |
| Coccidioidomycosis | 2 | 6 | 1 | 4 |
| Listeriosis | 3 | 5 | 0 | 1 |
| Meningitis - Bacterial [§] | 0 | 4 | 1 | 3 |
| Meningitis - Viral [§] | 4 | 9 | 2 | 7 |
| Meningococcal Disease [§] | 0 | 2 | 0 | 2 |
| Malaria | 3 | 4 | 1 | 1 |
| Dengue | 5 | 7 | 2 | 3 |
| Chikungunya | 5 | 10 | 0 | 1 |

*Excluding meningococcal meningitis § Includes confirmed and probable cases

Table 2. Selected Gastrointestinal illnesses reported in San Mateo County Residents

| Disease | 2015 | | 2014 | |
|---|-----------|------------|-----------|-----------|
| | 3rd Qtr | YTD | 3rd Qtr | YTD |
| Amebiasis | 1 | 4 | 2 | 6 |
| Campylobacteriosis | 62 | 180 | 49 | 151 |
| Cryptosporidium [§] | 12 | 25 | 8 | 28 |
| E. coli O157* | 2 | 9 | 2 | 9 |
| Giardia | 17 | 38 | 17 | 36 |
| STEC w/o HUS* | 6 | 12 | 4 | 6 |
| SALMONELLA (non-typhoid)[§] | 47 | 104 | 47 | 99 |
| S. Enteritidis | 5 | 13 | 6 | 19 |
| S. Typhimurium | 1 | 2 | 1 | 7 |
| Pending/Others | 41 | 89 | 40 | 73 |
| Shigellosis [§] | 9 | 24 | 9 | 21 |
| Vibrio (non-cholera) | 1 | 4 | 8 | 10 |

*STEC categories exclude E. coli O157 § Includes confirmed and probable cases

Table 3. Selected Vaccine Preventable Diseases reported in San Mateo County Residents

| Disease | 2015 | | 2014 | |
|---------------------------------|---------|-----|---------|-----|
| | 3rd Qtr | YTD | 3rd Qtr | YTD |
| Hepatitis A | 1 | 2 | 0 | 2 |
| Hepatitis B (acute) | 0 | 4 | 0 | 0 |
| Influenza - ICU Hosp (0-64 yrs) | 0 | 11 | 0 | 17 |
| Influenza Death (0-64 yrs) | 0 | 5 | 0 | 6 |
| Measles | 0 | 4 | 0 | 4 |
| Pertussis* | 21 | 36 | 48 | 110 |

*Includes confirmed, probable and suspect cases

About the Communicable Disease Control Program

The Communicable Disease Control Program is available to help meet the reporting needs and answer the questions of San Mateo County providers. To report a disease or outbreak, please call 650-573-2346 Monday through Friday, 8:00 am to 5:00 pm, or fax a Confidential Morbidity Report (CMR) to 650-573-2919.

You may download an electronic copy of the CMR at http://smhealth.org/sites/default/files/docs/PHS/cmr_cd_std.pdf. Web-based reporting via CalREDIE is also available. Please contact us if you would like to know more about, and sign up for, web-based reporting. Non-urgent questions and/or general enquiries may be directed to PH_CDControlUnit@smcgov.org (Note: underscore between PH and CD).

Sources: California Reportable Disease Information Exchange (CalREDIE)

Notes: Morbidity is based on the date the case was received; previous reports used date case incident was created in CalREDIE. Totals for past quarters may change due to delays in reporting from labs and providers, the use of different reporting systems, and changes to the resolution statuses of cases based on subsequent information received. All totals are for confirmed cases, unless noted otherwise.

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Focus on Listeria

Listeria monocytogenes is an important bacterial pathogen in immunosuppressed patients, individuals at the extremes of age including neonates and older adults, pregnant women, and, occasionally, previously healthy individuals. **Meningitis or meningoencephalitis** and **bacteremia** are the principal clinical manifestations of listerial infection in these hosts. In contrast, normal hosts who ingest high numbers of *Listeria* may develop **self-limited febrile gastroenteritis**.

L. monocytogenes is the only *Listeria* species that regularly infects humans, although rare cases of human infections with *Listeria ivanovii* (a pathogen of ruminants) and *Listeria grayi* have been reported. **The primary habitat of *Listeria* is the soil and decaying vegetable matter.** Most *Listeria* infections in adults are thought to result from oral ingestion and subsequent intestinal mucosal penetration and systemic infection.

On **Gram stain**, *Listeria* may resemble pneumococci (diplococci) or **diphtheroids** (Corynebacteria) or may be gram variable and be confused with *Haemophilus* species. When a positive blood or cerebrospinal fluid (CSF) culture is preliminarily identified as diphtheroids, one should consider the possibility of *Listeria*.

In the United States, the **incidence** of laboratory-confirmed cases of listeriosis between 2009 and 2011 was 0.29 cases per 100,000 persons. In adults ≥65 years of age, the incidence was 1.3 cases per 100,000 population, and, in pregnant women, the incidence was 3.0 cases per 100,000 population. The highest incidence was observed in pregnant Hispanic women (7.0 cases per 100,000 population). **Listeriosis in pregnancy** most often occurs in the third trimester and can lead to fetal death, premature birth, or infected newborns. A nonspecific flu-like illness is the most common presentation, and central nervous system (CNS) invasion is uncommon. There are no specific clinical indicators of listerial bacteremia. Thus, obtaining blood cultures should be considered in any pregnant woman who is febrile, when no alternative explanation (eg, urinary tract infection, pharyngitis) is readily apparent.

Listeriosis is more often a **sporadic illness** than an illness occurring in outbreaks. The source of infection in sporadic cases is usually not known, but most cases are thought to be secondary to ingestion of contaminated food. The typical duration of symptoms is two days or less, and recovery is generally complete. **Sporadic gastroenteritis** is an uncommon illness. Most **systemic, invasive listerial infections** occur in individuals with one or more predisposing conditions, including pregnancy, glucocorticoid therapy, other immunosuppressive conditions and age. Pregnant women, especially in the third trimester, are particularly susceptible and account for up to one-third of reported cases. Glucocorticoid therapy is the most important predisposing factor in non-pregnant patients.

Foodborne outbreaks, many of which are manifested by febrile gastroenteritis, have been described with a variety of foods. The most common are processed/delicatessen meats, hot dogs, soft cheeses, pâtés, and fruit. The attack rate in various outbreaks of gastroenteritis varies from 50 to 100 percent, and the mean **incubation period** is about 24 hours (range 6 hours to 10 days). **The incubation period for invasive listeriosis is substantially longer, with a mean of 35 days (range 1 to 91 days).**

Diagnosis can only be established by culture of the organism from the CSF or blood. Listerial infection is the one cause of bacterial (nontuberculous) meningitis in which a substantial number of lymphocytes (>25 percent) may be found in the CSF. Stool culture for *Listeria* is not indicated in patients with systemic listeriosis. However, in patients with suspected *Listeria* gastroenteritis or when investigating an outbreak of listeriosis, special selective media can be used since routine culture media for enteric pathogens do not support the growth of *Listeria*.

Antibiotics are not recommended in **immunocompetent** patients with listerial febrile gastroenteritis since it is almost always a self-limited illness. Oral ampicillin or trimethoprim-sulfamethoxazole is usually used in **immunocompromised**, pregnant, or older adult patients with listerial febrile gastroenteritis, particularly if they are still symptomatic or have ingested a food implicated in an outbreak. All patients with **invasive listeria infection** should be treated with antibiotics. Ampicillin or penicillin G are the **drugs of choice for treatment**. Gentamicin is often added to achieve synergy for listerial CNS infections, endocarditis, and infections in immunocompromised patients.