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. 21 ▪ Data to Sep 30, 2012

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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)

Table 1. **Selected CD cases reported in San Mateo County Residents**

Disease	2012		2011	
	3rd Qtr	YTD	3rd Qtr	YTD
Brucellosis	1	1	0	0
Coccidioidomycosis	3	13	1	4
Hepatitis C (chronic)[$]	97	419	$	$
Influenza - ICU Hosp (0-64 yrs)	1	10	0	17
Influenza Death (0-64 yrs)	2	2	0	1
Meningitis - Bacterial*	0	1	2	5
Meningitis - Viral	2	8	1	5
Meningococcal Disease	0	2	0	1
Paratyphoid/Typhoid Fever	1/1	3/1	1/1	1/2

[$] 2011 data not available at this time due to reporting changes. *Excluding meningococcal meningitis.

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

Disease	2012		2011	
	3rd Qtr	YTD	3rd Qtr	YTD
Amebiasis	1	4	0	5
Campylobacteriosis	88	213	70	181
Cryptosporidium	11	31	23	37
E. Coli 0157: H7	1	5	7	8
Giardia	15	38	14	58
SALMONELLA (non-typhoid)	6	100	32	68
S. Enteritidis	10	20	4	9
S. Braenderup	12	12	0	1
S. Thompson	2	9	0	0
Shiga toxin positive feces	0	5	2	2
Shigellosis	10	15	14	18
Vibrio (non-cholera)	4	5	1	1

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

Disease	2012		2011	
	3rd Qtr	YTD	3rd Qtr	YTD
Hepatitis A	0	0	1	7
Hepatitis B (acute)	0	1	0	1
Hepatitis B (chronic)[$]	17	66	$	$
Measles	0	1	0	1
Pertussis*	1	6	10	59

[$] 2011 data not available at this time due to reporting changes. *Includes confirmed, probable and suspect cases.

Table 4. **Outbreaks in San Mateo County**

Disease	2012		2011	
	3rd Qtr	YTD	3rd Qtr	YTD
All Gastrointestinal	2	22	0	9
Confirmed Norovirus	0	8	0	4
Respiratory	3	14	1	9
Confirmed Influenza	2	9	0	5
Hand, Foot & Mouth Disease	3	11	0	0

Focus on Hantavirus

As of November 1, 2012, CDC has reported that there are **10 confirmed cases (including 3 deaths)** of hantavirus infection in visitors to Yosemite National Park since June of this year. Nine of the ten individuals with hantavirus infection stayed in Yosemite's Signature Tent Cabins in Curry Village.

Hantaviruses infect rodents worldwide. **Hantavirus reservoirs exist in San Mateo County and one case has been reported in the past ten years (third quarter of 2010).** Several species are known to infect humans, with varying severity. In 1993, a previously unrecognized hantavirus (Sin Nombre virus) caused an outbreak in the southwestern United States. The principal target organ was the lung (**Hantavirus Cardio-Pulmonary Syndrome** or **HCPS**), as opposed to the kidney which is usually the target organ in human hantaviral infections (**Hemorrhagic Fever with Renal Syndrome**). The deer mouse is the major reservoir of the Sin Nombre Virus. **Rodent contact** is an important factor in the transmission of hantaviruses to humans. Many hantaviruses are shed in the urine, feces, or saliva of acutely infected reservoir rodents. It is suspected that **transmission to humans occurs via the aerosol route**. Very few patients with hantavirus infections give a history of rodent bites. However, two to four weeks before they develop symptoms, many report encountering living or dead rodents, or being in rooms with visible evidence of rodent infestation.

The interval between exposure and the onset of symptoms for hantavirus infections ranges from one to six weeks, with a median of 14 to 17 days. In all countries affected by hantavirus disease, there are regions that exhibit a high incidence of infection and others that are only rarely affected. In the United States, there are many more cases in the western states such as New Mexico, California, Washington, and Texas than in the Midwestern or Eastern states.

The earliest **clinical manifestations** of HCPS consist of fevers, chills, myalgias, and gastro-intestinal complaints. Headaches are sometimes prominent and abdominal pain can be severe enough to mislead the clinician into considering a diagnosis of acute abdomen. A dry cough often heralds the abrupt transition to the cardiopulmonary phase, with the sudden onset of respiratory distress and hypotension. The disease then usually progresses rapidly to severe respiratory failure and shock.

Diagnosis is through demonstration of **specific IgM antibodies** using ELISA, Western Blot or strip immunoblot techniques. HCPS should be suspected in settings in which a patient from a rural area or with potential exposure to wild rodents presents with fever, chills, and myalgias, especially in the presence of nausea and vomiting. The likelihood of surviving HCPS increases with early recognition, hospitalization, and adequate pulmonary and hemodynamic support. This includes intensive care unit monitoring, and the initiation of mechanical ventilation as needed to treat respiratory failure. Although it is used relatively often, **ribavirin** is as yet of no proven benefit.

Given the **limited treatment options and high case-fatality rate** of HCPS, which can be as high as 35-50%, prevention of disease is of utmost importance. Recommendations from the CDC focus on measures to limit contact with potentially infectious rodents in affected areas, particularly in indoor, poorly ventilated spaces.

Sources: CalReDIE and Automated Vital Statistics System (AVSS)

Note: Morbidity is based on date of diagnosis. Totals for past quarters may change due to delays in reporting from labs and providers and use of different reporting systems in 2012

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