



Communicable Disease and Epidemiology News

Published continuously since 1961
Edited by Sherry Lipsky, P.A.-C, M.P.H.



Seattle-King County
Department of Public Health
Epidemiology
First Interstate Building
999 Third Avenue, Ste. 900
Seattle, WA 98104 - 4039

BULK RATE
U.S.Postage
PAID
Seattle, WA
Permit No. 1619

Return Service Requested

IN THE DECEMBER 1998 ISSUE:

VOL 38, NO. 12

- ***Mycoplasma pneumoniae* Hits Seattle School**
- **Wrestling with Herpes Infections**
- **Thinking of Influenza Vaccine? Think Pneumococcal too!**
- **Immune Globulin Supply Back on Track**

***Mycoplasma* Cluster**

The Seattle-King County Department of Public Health (SKCDPH) Communicable Disease Epidemiology Unit has been investigating an unusual cluster of *Mycoplasma pneumoniae* infections at an elementary school in Seattle. Between September 1 and November 11 of this year, 97 persons associated with the school have had a respiratory illness characterized by fever, sore throat and prolonged cough. Fifty persons met a case definition of either one week of cough illness with a chest xray positive for pneumonia, or fever and cough of ten days or more duration. Other symptoms have included otitis media (two persons had bullous myringitis) and rash. To date, four persons have been positive for *M. pneumoniae*-specific IgM antibody by serologic testing and one person has tested positive for *M. pneumoniae* by polymerase chain reaction (PCR) on a throat swab. Serology is pending on nine additional specimens and PCR testing is pending on throat swabs from three other persons.

The majority of ill students were in the first and third grades, however cases also included family members of students and school staff. Actions taken by SKCDPH to decrease transmission of *M. pneumoniae* included enhancing early recognition and treatment of infection through educating parents and providers regarding the symptoms; appropriate diagnostic tests and antimicrobial treatment of *M. pneumoniae* infection; encouraging adherence to a four times per day handwashing regimen; reminding coughing persons to avoid spreading respiratory secretions and contaminating hands by holding the crook of the elbow over the mouth when coughing or sneezing; and reinforcing the value of maximizing

ventilation in the school and home environment.

Our investigation is continuing to better understand the epidemiology and transmission of *M. pneumoniae*. An initial questionnaire has been administered, and a second one will be sent to homes where household transmission may have occurred. Distinguishing infection with *M. pneumoniae* from other causes of respiratory tract infection is difficult. Laboratory testing of new cases is important in order to confirm the diagnosis. The most useful test is *M. pneumoniae*-specific IgM. Culture and PCR are also useful early in disease. Please call 206-296-4774 for additional information or help in diagnosing *M. pneumoniae* infection.

Community-wide *M. pneumoniae* epidemics occur every four to eight years. Although *M. pneumoniae* is not reportable in the U.S., the last year widespread epidemic activity was reported appears to have been 1993. *M. pneumoniae* is highly transmissible. Humans are the only known source of infection. Acquisition is presumed to be by droplet spread from symptomatic patients. The incubation period is one to four weeks. The unusually long incubation period complicates epidemiologic investigations and makes effective preventive treatment and cohorting less than optimally effective at interrupting transmission. Familial spread often continues for many months, resulting in cumulative household attack rates that approach 100%. Asymptomatic carriage after infection can occur for prolonged intervals even after treatment with antibiotics, but has not been associated with transmission.

The most common clinical syndromes caused by *M. pneumoniae* are acute bronchitis and upper respiratory tract infections, including pharyngitis and occasionally otitis media or myringitis. Coryza, sinusitis and croup are infrequent. Specific

disease syndromes are age-related. *M. pneumoniae* is the leading cause of pneumonia in school-age children and young adults but is an uncommon cause of symptomatic illness in children younger than five years of age. Initial symptoms are malaise, fever, and sometimes headache. A nonproductive cough develops within a few days and lasts for three to four weeks during which time it may become productive. Approximately 10% of children with pneumonia exhibit a rash. Chest film abnormalities are variable and characteristically are more extensive than the clinical picture would suggest. Acute bronchitis and upper respiratory tract illnesses caused by *M. pneumoniae* are generally mild and resolve without antibiotic therapy.

Transmissibility is reduced when appropriate therapy is used early in the course of the infection. Erythromycin, clarithromycin and azithromycin are preferred for treatment of *M. pneumoniae* infections in children younger than eight years of age. For persons eight years and older, tetracycline is equally effective and for adults, newer quinolones may be used.

Wrestling with HSV

The SKCDPH recently became aware of several cases of herpes simplex type 1 (HSV-1) infection among high school wrestlers. This infection, called herpes gladiatorum in wrestlers and scrumpox in rugby players, is thought to be one of the most common infections spread by person-to-person contact during athletic activity. HSV-1 appears to be endemic among high school wrestlers. A 1996 investigation by the Snohomish Health District and the Washington State Department of Health found that 21% of 249 high school wrestlers and coaches had either confirmed or possible herpes gladiatorum. Molecular epidemiologic analysis showed three distinct strains of HSV-1 among involved wrestlers

suggesting that multiple discrete outbreaks occur simultaneously during the wrestling season.

The infection is spread by contact with an opponent's cutaneous lesions or virus-bearing saliva. Transmission by fomites such as wrestling mats and equipment is thought to be insignificant. The herpetic lesions are usually found on the face, scalp and neck of wrestlers and may be accompanied by fever, headache, regional lymphadenopathy, sore throat, and itching or painful eyes. Herpes gladiatorum may be misdiagnosed as staphylococcal or streptococcal infection (impetigo), eczema, or ringworm (tinea gladiatorum). The main serious complication of herpes gladiatorum is ocular involvement, which may be manifested as follicular conjunctivitis or keratoconjunctivitis. Corneal involvement is usually characterized by pain or foreign-body sensation. Herpes keratitis is potentially vision-threatening and symptoms should trigger prompt ophthalmologic evaluation. Recurrences of ocular herpes develop in 25% or more of persons with symptomatic primary infection.

Clinicians and school health practitioners should maintain a high index of suspicion for herpes gladiatorum in wrestlers with cutaneous lesions on the face, neck

or scalp with or without systemic symptoms. The diagnosis of HSV-1 is confirmed by culture. Direct fluorescent antibody (FA) is a useful and rapid diagnostic test that has lesser sensitivity than culture and does not distinguish HSV-1 from HSV-2. Specimens for both tests are obtained by vigorously swabbing the base of fresh lesions.

Persons suspected of having herpes gladiatorum should be

referred to their health care provider for evaluation, confirmation, and possibly treatment. Appropriate disease control steps to prevent transmission of HSV-1 include ongoing evaluation of wrestlers and coaches throughout the wrestling season with exclusion of symptomatic persons from wrestling until all lesions are thoroughly healed and crusted. Although usually not indicated for uncomplicated nongenital mucocutaneous herpes infections, acyclovir and related drugs may shorten the time to healing and may be useful in preventing recurrences in selected cases. Herpes gladiatorum is not reportable although the Communicable Disease Epidemiology Unit is available to answer questions on this subject at 206-296-4774.

Thanks to Chris Spitters, MD, MPH, Snohomish Health District, for providing background on the Snohomish herpes gladiatorum investigation.

Pneumovax

Pneumococcal vaccine is recommended for and given to many of the same adults who receive influenza vaccine every fall. Pneumococcal vaccine is a one-time-only dose for most adults, and the vaccine can be given any time during the year.

A second dose of pneumococcal vaccine is now recommended by ACIP (CDC's Advisory Committee on Immunization Practices) ONLY for the following groups:

- 1) Immunocompromised persons 2 to 64 years of age:
 - For ages 2 to 10 years, give booster three to five years after the first dose
 - For ages 11 to 64 years, give booster five years after the first dose

- 2) Individuals over 65 years of age who were less than 65 years when they received their first dose, give booster if it has been five or more years since the first dose.

IG Supply

According to FFF Enterprises, the main distributor of the national private supply of immune globulin (IG), availability of immune globulin has improved. Health departments and private health care providers can resume ordering IG outside of an outbreak situation and without CDC approval. Providers can order IG directly from FFF Enterprises at 1-800-843-7477.

Until it is certain that the IG supply will be sustained, SKCDPH will continue to limit IG use to communicable disease exposures. Hepatitis A vaccine will continue to be recommended to travelers.

To Report: (area code 206)
AIDS296-4645
Tuberculosis731-4579
STDs.....731-3954
Communicable Disease 296-4774
24-hr Report Line.....296-4782
Disease Alert:
CD Hotline296-4949
After hours682-7321
<http://www.metrokc.gov/health/>

REPORTED CASES OF SELECTED DISEASES SEATTLE-KING COUNTY 1998

	CASES REPORTED IN NOVEMBER		CASES REPORTED THROUGH NOVEMBER	
	1998	1997	1998	1997
VACCINE-PREVENTABLE DISEASES				
Mumps	0	0	2	4
Measles	0	0	0	1
Pertussis	2	8	143	188
Rubella	0	0	1	1
SEXUALLY TRANSMITTED DISEASES				
Syphilis	3	0	34	5
Gonorrhea	59	73	899	826
Chlamydial infections	229	267	3171	2831
Herpes, genital	43	57	592	626
Pelvic Inflammatory Disease	15	13	211	266
Syphilis, late	1	2	27	39
ENTERIC DISEASES				
Giardiasis	19	17	244	247
Salmonellosis	19	14	205	216
Shigellosis	4	5	84	94
Campylobacteriosis	14	19	216	304
E.coli O157:H7	2	5	34	44
HEPATITIS				
Hepatitis A	10	23	381	403
Hepatitis B	2	0	47	35
Hepatitis C/non-A, non-B	0	0	1	2
AIDS	10	32	216	298
TUBERCULOSIS	13	5	106	126
MENINGITIS/INVASIVE DISEASE				
Haemophilus influenzae	0	0	1	1
Meningococcal disease	1	3	13	20

