Alonzo L. Plough, Ph.D, MPH, Director
Seattle-King County Department of Public Health

EPI-LOG

Communicable Disease and Epidemiology News
Published continuously since 1961
Edited by Sherry Lipsky, P.A.-C, M.P.H.

City of Seattle King County

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

Address Correction Requested

BULK RATE
u.s. Postage
PAID
Seattle, WA
Permit No. 7246

TIME VALUE

IN THE NOVEMBER 1997 ISSUE: **VOL 37, NO. 11**

Influenza

The first influenza isolate in Washington State has been reported in a 73 year old Seattle woman with cancer. She was hospitalized on October 20th with breathing difficulty, due to a collapsed lung. She was placed in the ICU the following morning, and died six days after admission. She had not traveled recently but had been exposed to a number of family members and visitors just prior to and during her hospital stay, including individuals from Hawaii and Washington, DC. Two grandchildren who lived with her and who attend local schools had been ill, one with respiratory symptoms; two family members who lived nearby also had respiratory symptoms, one of whom had contracted an upper respiratory infection while visiting in Oregon.

The isolate from this case is influenza A but has not yet been subtyped. In September and October 1997, ten states reported laboratory confirmed influenza, although none have been from Oregon, Idaho or Canada. All have been influenza A (three H3N2, the remainder not subtyped), with the exception of one B identified in West Virginia. Nationally, the percentage of deaths due to pneumonia and influenza continues to be within the expected level for this time of year. Influenza-like illness reported by sentinel physicians in the week ending November 1 was within baseline levels in the U.S. overall and in each of the nine regions.

The King County case is considered a sporadic case and does not necessarily signal the onset of the influenza season. Only two local schools have reported absenteeism greater than 10%, one of the indicators utilized for detecting influenza activity. No isolates from nursing homes in this state have been positive.

Pneumococcal Disease

A large proportion of adults at risk for invasive pneumococcal infection in the U.S. are under-vaccinated. In a Behavioral Risk Factor Surveillance System survey for 1995, only 36% (range 11-47%) of adults ≥65 years of age reported ever having had a pneumococcal vaccination. Washington State reported an average of 44% (39% of men, 49% of women). These figures are an improvement over 1993, when only 28% and 32% of persons ≥65 in the U.S. and Washington State, respectively, had ever received the vaccine. This is considerably lower, however, than reported influenza vaccination rates (59% nationally; 66% Washington State) for the same population in 1995. Additionally, less than 20% of persons aged 50-64 years at increased risk are estimated to have received pneumococcal vaccine.

The populations at risk who should receive pneumococcal vaccine are:

- persons aged ≥65 years
- persons aged 2 to 64 years with chronic illness (such as cardiovascular disease, pulmonary disease except asthma, diabetes, alcoholism, liver disease, or CSF leaks)
- persons aged 2 to 64 years with functional or anatomic asplenia
- persons aged 2 to 64 years living in special environments or social settings (e.g. Alaskan Natives and certain American Indian populations, residents of nursing homes and other long-term care facilities)
- immunocompromised persons ≥2 years of age

Routine revaccination of immunocompetent persons who received the 23-valent vaccine is not recommended. However, revaccination is recommended for *those who are at highest risk of disease and who are more likely to experience rapid declines in vaccine induced antibodies.* The recommended intervals are:

- persons aged ≥2 years for whom 5 years have elapsed since the first dose
- persons aged 2 through 10 years at the time of revaccination may be revaccinated as early as 3 years after the previous dose
- persons aged ≥65 years who received the vaccine ≥5 years previously and were aged <65 years at the time of the primary vaccination
- elderly persons with unknown vaccination status should receive one dose

Other methods of prevention for invasive pneumococcal disease include the daily use of oral penicillin V for infants and young children with sickle cell disease, begun before 4 months of age. Oral penicillin G or V is recommended for prevention of pneumococcal disease in children with functional or anatomic asplenia. The administration of IM or IV immunoglobulin may be useful in preventing pneumococcal infection in children with congenital or acquired immunodeficiency diseases who have recurrent, serious bacterial infections.

Organizational strategies, such as standing orders, are the most effective methods for increasing vaccination rates among persons at high risk. Other effective strategies include reviewing the overall immunization status during the adolescent visit at age 11-12 years and of patients at 50 years of age, and instituting practice-based tracking systems and physician reminder systems. The time of administration of influenza vaccine should also be used as an opportunity to identify and vaccinate patients with pneumococcal vaccine, keeping in mind that the latter is typically administered only once for persons in most groups (see above).

High risk children aged 2 through 18 years are eligible for

pneumococcal vaccine through the Washington State-funded vaccine distribution program. For more information, contact the Seattle-King County Department of Public Health Epidemiology Unit (206-296-4774) and ask for the Immunization Program. [See also MMWR 1997;46 (RR-8)].

Zebra of the Month

Thanks to Marisa D'Angeli, M.D. for this report.

A 6 1/2 month old female infant presented at the office of her primary physician on July 16, 1997, with a history of decreased appetite, runny nose and fever for one day. She had a temperature of 100.4° F and two oral ulcers, one of which was vesicular. She also had a history of right arm fracture. A diagnosis of hand, foot and mouth disease was made at that time.

That evening, the infant began vomiting. By the next day, she had decreased use of her right arm and did not want to be held. She was seen at Children's Hospital and Medical Center emergency room and admitted due to meningoencephalitis with flaccid right upper extremity paralysis. On admission she was noted to have additional thick-walled vesicular skin lesions with surrounding erythema on each hand and on one foot. (A male sibling was reported to have similar lesions on hands, feet, and knees.) Oral, rectal, skin, nasopharyngeal, and stool cultures were obtained and sent for viral isolation. Acute sera was obtained, and a lumbar puncture was performed.

PCR analysis of the CSF was negative for herpes and enterovirus. Blood, urine, and CSF were tested for bacterial infection. A cervical spine MRI and a bone and head CT scan were performed. Nasopharyngeal, rectal, and skin cultures were all positive for enterovirus. The serotype was subsequently identified as enterovirus 71. Upon discharge on July 24, the child had some movement of the right arm, but deltoid and bicep reflexes were absent and brachio-radialis reflexes were variable. Four months after discharge, she is much improved although mild right upper extremity weakness persists.

An estimated 30 million non-polio enterovirus infections occur each year in the United States. Most enteroviral infections are asymptomatic. They are transmitted mainly through the fecal-oral route. Oropharyngeal shedding is limited to about one week around the time of onset of symptoms. Virus is shed in feces for several weeks to months. Contrary to the name, enteric disease is not the most important manifestation of these infections. The most common manifestation is non-specific febrile illness with or without a rash. However, respiratory, skin, neurologic, gastrointestinal, eye or heart manifestations can occur.

The number of laboratories reporting enteroviral isolates for national surveillance had decreased from 25 in 1993 to 14 by 1996. Of the 3,209 non-polio enterovirus isolations reported through the surveillance system during this time period, clinical diagnoses included aseptic meningitis (13%), encephalitis (4%), pneumonia or respiratory symptoms (3%), paralysis (<1%), and carditis (<1%). No clinical diagnosis was noted in 73% of the patients. There are 67 known serotypes of enterovirus with predominant serotype variation from year to year. The University of Washington Virology Laboratory reports that we are having a record year for enterovirus isolates. The increase began in July, peaked in September, and is continuing into November. Enterovirus 71 was more common early in the season. Of the 30 enteroviruses isolated in September, 14 (47%) were echoviruses, 11 (37%) were group B coxsackieviruses, and 5 (18%) were enterovirus 71.

To Report:
AIDS 296-4645
Tuberculosis 296-4747
STDs..... 731-3954
Communicable Disease 296-4774
24-hr Report Line..... 296-4782
Disease Alert:
CD Hotline 296-4949
After hours 682-7321

REPORTED CASES OF SELECTED DISEASES
SEATTLE-KING COUNTY 1997

	CASES REPORTED IN OCTOBER		CASES REPORTED THROUGH OCTOBER	
	1997	1996	1997	1996
VACCINE-PREVENTABLE DISEASES				
Mumps	0	2	3	5
Measles	0	0	1	4
Pertussis	28	46	179	230
Rubella	0	0	1	2
SEXUALLY TRANSMITTED DISEASES				
Syphilis	0	1	5	1
Gonorrhea	112	82	753	813
Chlamydial infections	335	303	2564	2814
Herpes, genital	68	66	569	572
Pelvic Inflammatory Disease	31	37	253	331
Syphilis, late	5	4	37	52
ENTERIC DISEASES				
Giardiasis	39	30	230	207
Salmonellosis	26	20	202	190
Shigellosis	7	8	89	58
Campylobacteriosis	28	20	285	269
E.coli O157:H7	4	15	39	46
HEPATITIS				
Hepatitis A	29	56	380	354
Hepatitis B	4	5	35	73
Hepatitis C/non-A, non-B	0	0	11	11
AIDS	14	34	262	383
TUBERCULOSIS	7	15	98	120
MENINGITIS/INVASIVE DISEASE				
Haemophilus influenzae	0	0	1	3
Meningococcal disease	1	3	17	24