



**Communicable Disease and Epidemiology News**

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- **Pertussis Epidemics in Washington and Idaho**
- **Is Hantavirus Hiding Out?**

**Bit About Bites**

This is the season for more close encounters with animals and bats because there is more outdoor activity. We have noted some confusion among health care providers on what to do about such exposures and we thought it would be a good time to review this topic.

We still are very fortunate in Washington to have no endemic rabies in animals other than bats. This is not true for many parts of the country, where rabies occurs in dogs, cats, skunks, raccoons, coyotes, and other animals. Bats remain the only reservoir of rabies in Washington. About 10% of the bats tested by the state Department of Health (DOH) Public Health Laboratories are positive for rabies. It should be noted that the bats that are tested do not represent a random sample, but are bats that are found dead or are sick enough to get caught. We used to advise prophylaxis only when there was clear cut evidence of bat contact or a bite. However, after a child in Centralia died of rabies two years ago, the Centers for Disease Control and Prevention (CDC) modified its recommendation to recommend rabies post exposure prophylaxis (PEP) in the case of children, or any other instance where a clear history of exposure is lacking. In those instances, being in the same room as a bat overnight might be cause for prophylaxis of a young child, but for others it is a judgment call.

Since the decision whether to offer and then provide PEP can be complex, we encourage you to consult us about animal or bat bites and your other rabies related questions. For information about the occurrence of rabies in animals or bats or whether a particular animal or bat could be rabid, please call Dr. Marilyn Christensen, Public Health Veterinarian for the Seattle-King County Department of Public Health (SKCDPH) at 206-296-4880. Dr. Christensen can arrange through the DOH

laboratory to have an animal or bat tested when that animal or bat has potentially exposed a human being or another animal. She can also direct you to the appropriate agency to arrange for supervision of quarantine periods when there has been an animal bite.

If you are considering PEP, please call Dr. Russell Alexander or Janice Boase at 206-296-4774, day time, or 206-605-7312, on nights or weekends. To help with the decision to provide PEP, it is helpful to know as much as possible about the bite. When a human is bitten, it is important to find out whether the bite was provoked, whether the animal was vaccinated against rabies, whether the animal is in custody and can be quarantined for 10 days, the name and address of the owner, and when the bite occurred.

Beside advising you on the need for PEP, we can tell you where intramuscular human diploid cell rabies vaccine and rabies immune globulin are available. The SKCDPH does not carry rabies immune globulin, but some local hospitals and the state health department do carry it. There are currently no eastside locations that carry rabies immune globulin. Rabies vaccine and immune globulin are available through Connaught. These can be shipped by overnight mail by calling 1-800-VACCINE.

Rabies is still a nearly universally fatal disease, and is irreversible when it becomes symptomatic. Although the adverse side effects of vaccine are greatly diminished with diploid cell vaccine, vaccination is expensive. The cost of PEP exceeds \$1000 per course for biologics alone, and at least five visits are required to complete the series.

We have educational materials available for you or for your patients concerning bat exposures, animal bites, and rabies. They can be obtained by telephone (206-296-4774), or by writing to us at our new address which is indicated

above. Information on rabies may also be accessed on the state Department of Health web page ([www.doh.wa.gov/](http://www.doh.wa.gov/)) by selecting "Topics" and then rabies information.

**Pertussis**

In the first four months of 1997, 86 cases of pertussis have been reported in Seattle-King County. In 1996, 264 cases were reported and in 1995, 251 were reported. The rate in 1997, 14.9 per 100,000 population, is only slightly lower than the rate for the previous two years. We observed a marked increase in the number of cases reported in June, 1995 and the number of cases has never returned to previous levels. The majority of cases have occurred in school-aged children and adults. However, pertussis is more likely to be considered in the differential diagnosis when the ill person is an infant. Infants are more likely than adults or older children to have a positive result when a bacterial culture for pertussis is done. Therefore, it is often only after an infant has been diagnosed that an older person is discovered to be the source of illness for the baby.

Northern Idaho is currently experiencing an explosive outbreak of pertussis which resulted in the death of a two month old infant. The child who died had tested positive for pertussis by DFA and was in a day care where two other children tested positive by culture. Although there were some cases in outlying counties, most have occurred in Kootenai County. In the six weeks since April 1, the local health department had recorded 166 cases, while more than 3,050 persons had been tested in Kootenai County during this time period. The criteria for testing during this outbreak is that an individual be symptomatic and able to name a contact who was a known case. There have been at least five hospitalizations with one person discharged on an apnea

monitor. The number of new cases has dropped dramatically since the last week of April. At the point where 148 cases had been recorded, 80 (54%) had tested positive by culture.

There was a related increase in pertussis cases in nearby Spokane County, Washington. In the last two weeks of April, 73 persons had been identified with pertussis by DFA (technology for bacterial culture had not been available).

Pertussis in adults and school-aged children is a distinct syndrome which is recognizable if a careful clinical history is taken; a whoop when trying to breathe after coughing, post-tussive emesis, and apnea during paroxysms occur in  $\geq 25\%$  of cases. A history of symptomatic household or work contacts is also significant.

## Is Hantavirus Hiding

With travel, hiking, and revisiting summer cabins or homes foremost in the minds of many, the SKCDPH has been receiving inquiries from callers concerned about hantavirus. Hantavirus Pulmonary Syndrome (HPS) is a serious, often deadly, respiratory disease that has been found mostly in rural areas of the western United States. HPS was identified in 1993 as a result of an epidemic in the Four Corners area of the southwestern U. S. Initial symptoms of HPS include fever, myalgia, headache, cough, nausea, vomiting, and abdominal pain. Respiratory symptoms rapidly worsen and pulmonary edema with hemodynamic decompensation occurs in the majority of patients. In contrast to other hantavirus infections, renal involvement is absent or minimal in HPS patients. The precise incubation period is

unknown, but based on available data it probably ranges from 2-42 days with an average of two weeks. Hantaviruses are transmitted horizontally among rodents, with transmission usually leading to chronic, asymptomatic infection. The virus is excreted by rodents in urine, saliva, and feces. Humans become infected by inhalation of, or direct contact with aerosolized infected rodent excreta or contaminated dust particles; a rodent's bite can also transmit the virus.

Deer mice are the most common reservoir in the western U.S. Through 1996, deer mice from 10 of 13 counties in eastern and western Washington have been trapped and tested positive for hantavirus; 58 of 451 mice (12.9%) tested positive. This prevalence is similar to other western states. However, no mice were trapped in King County, as most of the counties where trapping has been carried out by the DOH were those with HPS cases. Most recently, the DOH surveyed the surroundings of the residence of a 1996 HPS case in Snohomish County and found 3 of 8 mice positive for hantavirus. The military has also surveyed mice at Fort Lewis in Pierce County; 17 of 122 mice were positive, according to the DOH.

Risk factors associated with acquiring hantavirus infections include domestic, leisure, and agricultural activities that put individuals in contact with infected rodent excreta or contaminated aerosols, usually in a rural setting. Such activities include planting and harvesting field crops, occupying or cleaning rodent infested cabins, barns or outbuildings, disturbing or sleeping in rodent infested areas

while hiking or camping, or inhabiting dwellings with large indoor rodent populations.

Current data suggest that the risk of acquiring HPS in Washington is very small. To date, 11 cases have been identified in Washington residents, one of which is thought to have been an out-of-state exposure; none were King County residents. Four cases were identified in 1996, including one in Snohomish County, but no cases have been reported so far this year. However, persons who may come in contact with potentially infected rodents or contaminated environments may wish to review the precautions outlined in the July 30, 1993 (Vol 42, RR-11) issue of the MMWR, *Hantavirus Infection-Southwestern United States: Interim Recommendations for Risk Reduction*. A pamphlet entitled 'Taking Steps to Prevent Hantavirus' is available at the SKCDPH (296-4774), or you can access information on our website (under Communicable Diseases) at [www.metrokc.gov/health](http://www.metrokc.gov/health). The CDC website includes an online slide set, health education materials, and detailed rodent control information: [www.cdc.gov/ncidod/diseases/hanta/](http://www.cdc.gov/ncidod/diseases/hanta/)

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### 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

**REPORTED CASES OF SELECTED DISEASES  
SEATTLE-KING COUNTY 1997**

	CASES REPORTED IN APRIL		CASES REPORTED THROUGH APRIL	
	1997	1996	1997	1996
<b>VACCINE-PREVENTABLE DISEASES</b>				
Mumps	2	2	2	2
Measles	0	0	0	3
Pertussis	16	18	86	66
Rubella	0	0	0	1
<b>SEXUALLY TRANSMITTED DISEASES</b>				
Syphilis	1	0	3	0
Gonorrhea	63	73	263	369
Chlamydial infections	288	229	1050	1095
Herpes, genital	51	63	210	236
Pelvic Inflammatory Disease	26	18	140	145
Syphilis, late	5	7	13	26
<b>ENTERIC DISEASES</b>				
Giardiasis	18	17	66	75
Salmonellosis	16	14	59	67
Shigellosis	5	4	30	21
Campylobacteriosis	18	20	76	94
E.coli O157:H7	4	1	7	4
<b>HEPATITIS</b>				
Hepatitis A	35	22	147	77
Hepatitis B	6	11	15	34
Hepatitis C/non-A, non-B	0	1	6	3
AIDS	34	27	126	198
TUBERCULOSIS	12	7	39	30
<b>MENINGITIS/INVASIVE DISEASE</b>				
Haemophilus influenzae	0	0	1	0
Meningococcal disease	2	3	9	9