



Communicable Disease and Epidemiology News

Published continuously since 1961

Krista Rietberg, MPH Editor (krista.rietberg@kingcounty.gov)

Return Services Requested

Vol. 49, No. 5

August 2009

- **Animal Bites and Risk of Rabies in King County**
- **FAQ: Testing for Mumps**
- **In Memoriam: Linda Vrtis, RN, BSN**

Animal Bites and Risk of Rabies in King County

With warm weather comes increased reports of animal bites and bat exposures. In 2008, Public Health—Seattle & King County received 911 reports of animal bites and possible bat exposures in King County residents. Sixty percent of these were reported in the five month period from May through September.

Washington State law (WAC 246-101) requires health care providers to report animal bites and potential exposures to rabies suffered by humans immediately including bats and administration of rabies post exposure prophylaxis (PEP). The primary purpose of the reporting requirement is to identify persons who should receive rabies PEP.

Rabies and Bats

Bats are the primary reservoir for rabies in Washington State. In the period 2003-2007, between 5.5% and 10% of bats tested each year in Washington were positive for rabies. However, the actual proportion of bats that are rabid in the wild is likely lower because healthy, non-rabid bats are less likely to be captured and tested.

Reports of actual bat bites are infrequent; typically reports to Public Health involve other types of human exposure to bats. Bat exposures include bare-skin contact with a bat and situations where bare-skin contact cannot be ruled out (e.g., a bat is found in a room with a child, an inebriated person, or an adult wakes to find a bat in the room). These exposures are reportable so that Public Health can:

- Assist health care providers in assessing the risk for rabies
- Help determine the need for rabies PEP
- Facilitate laboratory testing of animals for rabies if indicated

Rabies in Terrestrial Animals

No rabies cases have been identified in wild terrestrial animals in Washington in the past 60 years. However, there is currently no systematic surveillance for rabies among wild animals in our state—only animals involved in human exposures are typically tested. Sporadic cases of rabies have occurred in recent years in Idaho, Oregon and British Columbia. Furthermore, spillover of bat rabies into terrestrial animals (skunks) leading to a sustained epizootic has been documented in Arizona. Although the risk of rabies from terrestrial animals in Washington is low, without a good surveillance system it is possible for rabies to be present or emerge without detection. Public Health will continue to recommend rabies PEP for persons bitten or scratched by raccoons and other terrestrial carnivores when the animal is not available for rabies testing.

Rabies and Foreign Travel

In 2008, 142 persons reported to Public Health in King County met the criteria to receive rabies PEP, including 4 persons who

were exposed to an animal that tested positive for rabies (3 bats, all in Washington State; and 1 skunk that the person was exposed to in Northeast U.S.). While the majority of cases that required rabies PEP were exposed in King County or in Washington State, 23% were exposed while traveling abroad. The foreign exposures included monkeys, dogs, cats and bats. Follow-up for cases exposed in other countries can be complex for many reasons: 1) rabies PEP initiated outside the U.S. may include the administration of biologics that are not approved by the U.S. Food and Drug Administration (such as vaccines of nerve tissue origin); or 2) the schedule or dosage for PEP may differ from recommendations in the U.S.; or 3) rabies immune globulin (RIG) is not always available or given. In these situations, Public Health provides recommendations for PEP on a case-by-case basis.

Rabies Prevention

Many animal bites and rabies exposures can be avoided. Health care providers can help educate their patients about reducing the risks associated with wild and domestic animals. One of the primary ways to prevent rabies is to avoid contact with wild animals. Another is to prevent bats from entering homes or occupied spaces where they might come in contact with people and pets. Another way is to keep rabies vaccine up-to-date for all dogs, cats, and ferrets.

Reporting Animal Bites and Rabies PEP in King County

Rabies is preventable with timely and appropriate care. Health care providers should advise persons who have been bitten by an animal to wash the wound with soap and water, and consult Public Health on how to manage the animal. In situations where PEP is being considered, health care providers should immediately call Public Health at 206-296-4774, preferably before beginning PEP. Public Health staff includes physicians and veterinarians and are available 7 days a week, 24 hours a day for consultation. When reporting animal bites and exposures to Public Health please include information about the nature of the bite or exposure, whether the animal was a wild animal or a known pet (e.g., the person's own cat, dog or ferret, or the pet of a friend or family member), where the bite occurred (in King County or abroad), and any circumstances surrounding the bite or exposure.

Public Health staff can recommend whether testing or confinement and observation of the animal is appropriate. In the case of bat exposures, capturing and testing the bat may avoid unnecessary administration of PEP, because most bats do not have rabies. For information on safe bat capture see: www.kingcounty.gov/healthservices/health/communicable/diseases/bats.aspx

Tetanus Prophylaxis in Wound Management

Persons 11 to 64 years of age who require a tetanus toxoid-containing vaccine for wound management should receive Tdap instead of Td if they have not previously received Tdap. If Tdap is not available or was administered previously, Td

should be administered. Adults who have never received tetanus and diphtheria toxoid-containing vaccine should receive a series of three vaccinations and tetanus immune globulin (TIG). The preferred schedule is a dose of Tdap, followed by a dose of Td more than 4 weeks later, and a second dose of Td 6 to 12 months later. Tdap can be substituted for Td for any one of the three doses in the series.

For additional information on the management of possible rabies exposure including information on wound management see: <http://www.kingcounty.gov/healthservices/health/communicable/providers/RabiesAssessment.aspx>

FAQ: Testing for Mumps

While the number of confirmed cases of mumps in King County and Washington State remains low, the clinical diagnosis of mumps and requests for mumps testing are not infrequent. Below are some frequently asked questions about mumps testing. Public Health is available to answer questions about testing and can help facilitate testing in cases where mumps is highly suspected.

When should a patient be tested for mumps?

Suspect mumps when a patient has symptoms consistent with the clinical case definition: an illness with acute onset of unilateral or bilateral tender, self-limited swelling of the parotid or other salivary gland(s), lasting at least 2 days, and without other apparent cause. Because clinical diagnosis is unreliable, laboratory confirmation is recommended for patients suspected of having mumps.

How has testing for mumps changed in recent years?

Testing for mumps became more complicated after the 2006 mumps outbreak in the United States. Prior to that outbreak, serologic testing for mumps IgM was considered diagnostic because its presence was interpreted as indicating acute infection, and its absence ruled mumps out. However, during the 2006 outbreak, some persons previously exposed to the virus through either vaccination or disease still became infected. And in those individuals, elevation of mumps IgM was either transient or absent. Experience suggests that IgM assays from previously immunized persons with acute infection may be negative up to 50% of the time. Therefore a negative IgM does not rule out infection in a vaccinated person (MMWR 2006; 55(42):1152-3).

What specimens should be collected from patients meeting the clinical case definition?

Public Health recommends that both a buccal swab (a swab of the space near the upper rear molars between the cheek and the teeth) and a blood specimen be collected from all patients with clinical features compatible with mumps. Washington State Public Health Lab (WA PHL) will perform viral cultures and real-time polymerase chain reaction (PCR) for mumps virus on buccal swabs from persons suspected to have mumps. Healthcare providers are encouraged to send serum to commercial

laboratories for mumps specific IgM and IgG testing.

When should specimens be collected?

Ideally, buccal swabs should be collected within 3 days of onset of parotitis. Mumps virus is isolated in up to 85% of buccal specimens when collected within 5 days of the onset of symptoms. Buccal swabs are not useful if collected 5 or more days after parotitis begins. Among **unvaccinated** persons, if serum for IgM is collected 3 or fewer days after the onset of parotitis and is negative, a second serum sample collected 5 to 7 days after onset is recommended.

Where can I find additional information about mumps and mumps testing?

Please visit: <http://www.kingcounty.gov/healthservices/health/communicable/diseases/MumpsResources.aspx>

In Memoriam: Linda Vrtis, RN, BSN

Public Health lost a great colleague and friend when Linda Vrtis died on July 27th, 2009 from complications of lymphoma. Linda worked for the last 10 years as a public health nurse in the Communicable Disease Epidemiology and Immunization Section. Linda was a great resource for the community, especially her knowledge of pertussis and perinatal hepatitis B.

Linda was a great support to many school nurses and childcare providers. She will best be remembered by those who knew and worked with her for her tenacity, attention to detail, sense of humor, love of sports, and holiday sweaters. Linda will be dearly missed.

Disease Reporting

AIDS/HIV (206) 296-4645
 STDs (206) 744-3954
 TB (206) 744-4579
 All Other Notifiable Communicable Diseases (24 hours a day) (206) 296-4774
 Automated reporting line for conditions not immediately notifiable (206) 296-4782

Hotlines

Communicable Disease (206) 296-4949

Public Health-Seattle & King County

Online Resources

Home Page: <http://www.kingcounty.gov/healthservices/health.aspx>
The EPI-LOG: <http://www.kingcounty.gov/healthservices/health/communicable/epilog.aspx>
Communicable Disease listserv (PHSKC INFO-X) at: mailman.u.washington.edu/mailman/listinfo/phskc-info-x
West Nile Virus Updates and Current Testing Guidelines: <http://www.kingcounty.gov/healthservices/health/ehs/westnile.aspx>

Reported Cases of Selected Diseases, Seattle & King County 2009

	Cases Reported In July		Cases Reported Through July	
	2009	2008	2009	2008
Campylobacteriosis	31	38	165	192
Cryptosporidiosis	3	4	3	22
Chlamydial infections	391	548	3445	3478
Enterohemorrhagic E. coli (non-O157)	3	0	5	0
E. coli O157: H7	9	6	19	16
Giardiasis	6	10	45	67
Gonorrhea	95	113	600	772
Haemophilus influenzae (cases <6 years of age)	0	0	1	2
Hepatitis A	1	2	11	14
Hepatitis B (acute)	0	8	6	24
Hepatitis B (chronic)	49	60	376	523
Hepatitis C (acute)	1	0	3	7
Hepatitis C (chronic, confirmed/probable)	99	137	803	832
Hepatitis C (chronic, possible)	21	27	167	190
Herpes, genital (primary)	46	43	296	320
HIV and AIDS (includes only AIDS cases not previously reported as HIV)	38	33	206	222
Measles	0	0	0	0
Meningococcal Disease	0	0	2	3
Mumps	0	0	1	1
Pertussis	5	8	20	44
Rubella	0	0	0	0
Rubella, congenital	0	0	0	0
Salmonellosis	34	22	137	116
Shigellosis	4	4	39	28
Syphilis	10	24	71	120
Syphilis, congenital	0	0	0	0
Syphilis, late	2	4	48	52
Tuberculosis	11 (9)	10 (13)	54 (82)	58 (68)

*A new system for counting TB cases was initiated January 1, 2009, and it is difficult to compare monthly case counts from 2009 to prior years. For this and future editions, TB case counts will include the monthly case count including cases reported at death as well as the number of high suspects started on TB treatment in parentheses.

The *Epi-Log* is available in alternate formats upon request.