



Communicable Disease and Epidemiology News

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Influenza Update: Laboratory Testing and Reporting

Flu in King County-Snapshot

Influenza activity is increasing in King County. Outpatient clinic-based surveillance data shows an increase in specimens testing positive for influenza A over the last three weeks (data through 9/26). Laboratories have also reported an increase in rapid flu tests being performed, and in the percent testing positive for flu over the last month. Emergency department visits related to influenza-like illness have increased since the last week in August, approaching levels seen during the seasonal flu peak in February and March of 2009, but still below the spring 2009 H1N1 outbreak. Levels of school-reported absenteeism are not unusual for this time of year.

Laboratory testing

Criteria for submitting specimens to Washington State Public Health Lab (PHL) were changed in September, 2009. If testing for 2009 H1N1 virus has not been performed, laboratories should submit clinical specimens or viral isolates to PHL from:

- hospitalized patients with lab-confirmed influenza infection,
- deceased patients with lab-confirmed influenza infection, and,
- with approval from Public Health:
 - deceased or critically ill patients with *suspected* influenza,
 - patients involved in institutional outbreaks of influenza-like illness.

Laboratories are encouraged to send influenza virus isolates from deceased or critically ill patients to PHL, regardless of whether or not 2009 H1N1 testing has been performed. Laboratories do not need to submit specimens from patients who test positive for influenza B.

In addition, healthcare providers have the option to submit specimens for 2009 H1N1 testing from non-hospitalized, pregnant women who have tested positive for influenza.

If a patient does not meet the above criteria for testing at PHL, 2009 H1N1 testing can be done at a commercial laboratory if a healthcare provider feels testing is necessary for patient care.

To assist with deciding when testing at PHL is appropriate; please see the algorithm available at: <http://www.doh.wa.gov/ehsphl/Epidemiology/CD/swineflu/sflu-testalg.pdf>

All specimens submitted to the PHL must be accompanied by a completed 2009 H1N1 PHL Virology Specimen Submission Form found at: <http://www.doh.wa.gov/ehsphl/Epidemiology/CD/swineflu/sfluresources.htm>

Case Reporting

On September 18, 2009 the Washington State Department of Health (DOH) issued Emergency Rule 246-101 making hospitalized patients and deceased patients with laboratory confirmed influenza reportable. Public Health requests that health care providers work with their hospital infection control program to report the following:

- all hospitalized patients with lab-confirmed influenza infection of any type*,
- deceased patients with lab-confirmed influenza infection*,
- deceased and critically ill patients (i.e. admitted to ICU) suspected to have influenza, even if infection is not lab-confirmed,
- institutional outbreaks of influenza-like illness (e.g. at long term care facilities and health care facilities)

*Laboratory confirmation may be by a positive rapid influenza test, real-time PCR test, direct fluorescent antibody assay, immunofluorescent assay, or viral isolate from cell culture.

In King County, cases are to be reported by faxing a Washington State DOH influenza case report form to (206) 296-4803 within one business day of diagnosis.

Additional information about Emergency Rule 246-101 can be found at: www.doh.wa.gov/ehsphl/Epidemiology/CD/swineflu/sfluresources.htm

2009 H1N1 Influenza Resources

Surveillance:

King County:

www.kingcounty.gov/healthservices/health/communicable/immunization/fluactivity.aspx

Washington State:

www.doh.wa.gov/ehsphl/Epidemiology/CD/swineflu/sfluresources.htm

Nation Wide:

www.cdc.gov/flu/weekly/

Resources for Healthcare Providers:

King County:

www.kingcounty.gov/healthservices/health/preparedness/pandemicflu/swineflu/providers.aspx

Washington State:

www.doh.wa.gov/ehsphl/Epidemiology/CD/swineflu/sfluresources.htm

CDC:

www.cdc.gov/h1n1flu/guidance/

Zebra of the Month: Fever and Headache after Hunting with Falcon

On August 7, 2009, a teen-aged falconer who had been hunting with his bird three days earlier developed a fever and a headache. A few days later, he noticed focal swelling of the medial aspect of his right arm near his elbow. His right axillary lymph node was also enlarged and tender. On initial examination, his health care provider suspected a viral infection, and instructed him to return if his symptoms did not resolve within a week. Although his fever and headache subsided, the swelling became progressively more pronounced and painful. He was seen by an infectious disease physician who diagnosed him with tularemia by direct fluorescent antibody testing of a clinical specimen aspirated from the right epitrochlear lymph node.

Tularemia is a rare zoonotic bacterial disease caused by *Francisella tularensis*. When it was first discovered in 1911, tularemia was thought to be a plague-like illness affecting rodents. However, it was later found to be a serious infection in humans as well, with the potential to be used as a bioterrorism agent. In the United States, most human cases occur in south-central and western states, although it has been reported in every state except Hawaii. Since 2000, only three human cases of tularemia have been reported in King County. Small mammals including rabbits, hares, squirrels, and mice are natural reservoirs of *F. tularensis*. These animals become infected through a tick, fly, mosquito bite, or through contact with a contaminated environment. Like small mammals, humans can become infected through infective arthropod bites, but they also can acquire tularemia by handling infectious carcasses, ingestion or direct contact with contaminated food, soil, or water, or through inhalation of infectious aerosols. Human-to-human transmission has never been documented. This teen-aged falconer was likely infected by handling a contaminated rabbit carcass while hunting the week prior to his onset of illness.

Clinical symptoms of tularemia typically consist of a flu-like illness initially, including fever, chills, headache, myalgias, nausea, and fatigue. The disease ultimately manifests in a variety of ways, depending on the site of inoculation. Commonly, infected individuals will develop a skin ulcer with regional lymph node enlargement (ulceroglandular tularemia) or swelling of one or more lymph nodes without a visible ulcer (glandular tularemia). Pharyngitis, abdominal pain, vomiting, or diarrhea can develop as a result of ingesting contaminated food or water (oropharyngeal tularemia). Individuals who inhale contaminated aerosols show symptoms of respiratory involvement, including pneumonia (pneumonic tularemia).

Rarely, the organism is introduced through the conjunctival sac, resulting in purulent conjunctivitis and regional lymphadenitis (oculoglandular tularemia). Typhoidal tularemia and tularemia sepsis are other clinical forms of the disease that result in nonspecific systemic illness, with tularemia sepsis being especially severe and potentially fatal. The incubation period of tularemia is usually 3-5 days (range 1-14 days), and symptoms can last weeks to months if gone untreated.

Updated HIV/AIDS Epidemiology Profile for Community Planning

The Public Health – Seattle & King County HIV/AIDS Epidemiology Program has published an updated “HIV/AIDS Epidemiology Profile for Community Planning”. It includes data from HIV/AIDS surveillance, as well as data from a number of other local projects and studies to characterize the epidemiology of HIV in King County. The report is available at: <http://www.kingcounty.gov/healthservices/health/communcable/hiv/epi/profile.aspx>

Printed copies will be available in mid-September by calling the HIV/AIDS Epidemiology Program at 206-296-4645.

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/communcable/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 August		Cases Reported Through August	
	2009	2008	2009	2008
Campylobacteriosis	25	29	190	221
Cryptosporidiosis	3	5	16	27
Chlamydial infections	390	521	3912	3999
Enterohemorrhagic <i>E. coli</i> (non-O157)	1	1	6	2
<i>E. coli</i> O157: H7	10	4	29	19
Giardiasis	20	7	65	74
Gonorrhea	63	139	677	911
<i>Haemophilus influenzae</i> (cases <5 years of age)	0	0	1	2
Hepatitis A	0	0	10	14
Hepatitis B (acute)	1	2	7	26
Hepatitis B (chronic)	50	82	427	604
Hepatitis C (acute)	0	2	3	9
Hepatitis C (chronic, confirmed/probable)	93	137	895	968
Hepatitis C (chronic, possible)	26	28	194	218
Herpes, genital (primary)	62	39	361	359
HIV and AIDS (includes only AIDS cases not previously reported as HIV)	20	25	231	247
Measles	0	0	0	0
Meningococcal Disease	1	1	3	4
Mumps	0	0	1	1
Pertussis	6	8	26	52
Rubella	0	0	0	0
Rubella, congenital	0	0	0	0
Salmonellosis	33	28	170	144
Shigellosis	3	3	42	30
Syphilis	13	23	77	143
Syphilis, congenital	0	0	0	0
Syphilis, late	2	5	52	57
Tuberculosis	6 (10)	12 (11)	66 (100)	71 (83)

*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.