EPI-LOG

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- **West Nile Virus Detected in a King County Blood Donor**

Positive Hepatitis A IgM in Persons Without Hepatitis A-Like Clinical Illness

After the introduction of routine childhood hepatitis A vaccination, the incidence of acute hepatitis A is at an all-time low locally and nationally. Since 2004, there have been 14 to 17 cases of acute hepatitis A reported yearly in King County, compared to over 500 per year in the 1990s. Because the prevalence of disease is so low, the majority of reports of persons with positive immunoglobulin M (IgM) antibody to hepatitis A virus (anti-HAV) are determined not to be actual cases.

A confirmed case of acute hepatitis A is defined as an illness with:

a) Discrete onset of symptoms, such as nausea, abdominal pain, vomiting, and/or diarrhea, **AND**
b) Jaundice or elevated serum aminotransferase levels, **AND**
c) Serum positive for anti-HAV IgM

A positive anti-HAV IgM test result in a person without typical symptoms of hepatitis A infection might indicate asymptomatic acute infection, previous infection with prolonged presence of IgM antibody, or a false-positive test result.

In 2007 in King County there were 33 reports of positive anti-HAV IgM results in persons that did not meet the clinical criteria and 17 reports of confirmed acute hepatitis A, and so far in 2008, the trend is continuing. A similar pattern has been seen nationally, described in a 2005 article by the Centers for Disease Control and Prevention (CDC).[1]

Because hepatitis A is preventable through timely post-exposure prophylaxis (PEP), all cases of suspected hepatitis A require immediate investigation to determine:

a) Does the case have clinical illness consistent with hepatitis A?
b) Does the case have close contacts who should receive hepatitis A PEP?
c) Does the case work as a food service worker, and if so, did he or she work while infectious?
d) If the case is a food service worker, is it appropriate to issue a public announcement advising customers who ate at the restaurant where the case worked to either receive hepatitis A PEP, or watch for symptoms?
e) Does the case have obvious risk factors for hepatitis A (international travel or contact with a confirmed or probable case)?
f) Is the case part of a cluster or a common-source outbreak?

The CDC recommends that persons who are unlikely to have acute viral hepatitis not be tested for anti-HAV IgM and that the hepatitis A IgM test not be used as a screening test.

Testing for anti-HAV IgM should be done only for patients with symptoms compatible with acute hepatitis A infection. To test a patient for past infection or immunity, the preferred test is the total anti-HAV antibody (IgG). Appropriate anti-HAV IgM testing will increase the proportion of reported cases that are true cases of acute hepatitis A infection and decrease unnecessary clinical and public health follow-up.

Acute hepatitis A infection is immediately reportable by both laboratories and health care providers in Washington State.[2]

Rabies Vaccine: No Ifs, Ands or Butts!

Recently, Public Health has received several reports of patients being given rabies vaccine in the gluteal area as part of rabies post-exposure prophylaxis (PEP). Unfortunately, doses given in the gluteus area are invalid, and should be repeated. This is because of the risk that some, or all, of the vaccine might be injected into fat rather than muscle.

Several years ago, a 10 year old boy in Thailand died of rabies after completing a series of rabies PEP in which human rabies immune globulin (HRIG) and 4 of the 5 rabies vaccine doses were given gluteally.[3]

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[1] CDC. Positive test results for acute hepatitis A virus infection among person with no recent history of acute hepatitis---United State, 2002-2004. MMWR 2005:54(18):453-456. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5418a1.htm

[2] To report a case in King County, call (206) 296-4774.

[3] CDC. International Notes Human Rabies Despite Treatment With Rabies Immune Globulin and Human Diploid Cell Rabies Vaccine – Thailand. MMWR 1987: 36(46);759-60,765. http://www.cdc.gov/mmwr/preview/mmwrhtml/00001005.htm

For optimal effectiveness, rabies vaccine must be given intramuscularly (IM). The vaccine should always be administered to adults IM, preferably in the deltoid muscle. For children, the anterolateral aspect of the thigh is also acceptable. Otherwise, lower antibody titers and possible vaccine failure could result. With the current rabies vaccine supply situation, it is more important than ever to avoid unnecessary or wasted doses of vaccine.

More information about rabies vaccine administration and ordering can be found on the Public Health website at:
http://www.metrokc.gov/health/providers/epidemiology/health-alert-080812.htm

West Nile Virus Detected in a King County Blood Donor

An adult female King County resident who donated blood at the Puget Sound Blood Center (PSBC) at the end of July has tested positive for West Nile virus (WNV). She probably did not acquire the virus in King County because during the exposure period, she traveled outside King County to places where WNV has been found.

At the time she donated blood, the woman reported feeling healthy. After donation she had mild self-limited symptoms that were not severe enough to cause her to seek health care. She did not have fever, a defining symptom of West Nile fever, or any symptoms of the more severe neuro-invasive form of disease.

The PSBC screens all donated blood for WNV by nucleic acid-amplification tests (NAT). The blood this patient donated at the end of July tested positive for WNV, and the result was reported to Public Health. The donated blood was removed from processing, and was not given to patients. Confirmatory testing for WNV IgM was positive at the Washington State Department of Health Public Health Laboratory on August 14th.

During the days before donation when she most likely became infected, the woman traveled to Eastern Washington and to parts of Oregon. This summer, horses and mosquitoes in Eastern Washington have tested positive for WNV. Last year Oregon had 26 human cases of WNV disease.

So far this year in King County, no mosquitoes, birds, or horses have tested positive for WNV.

If you suspect WNV in a patient, the best way to diagnose WNV infection is to test for IgM antibody to WNV in serum collected between 8 and 14 days of illness onset or cerebrospinal fluid (CSF) collected within 8 days of onset using the IgM antibody-capture enzyme immunoassay (EIA).

More information on WNV for health care providers can be found on the Public Health website at:
http://www.metrokc.gov/health/providers/wnv-clinicians.htm

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
HIV/STD ..... (206) 205-STDS

Public Health-Seattle & King County

Online Resources

Home Page: www.metrokc.gov/health/
The *EPI-LOG*: www.metrokc.gov/health/providers
Communicable Disease listserv (PHSKC INFO-X) at:
mailman.u.washington.edu/mailman/listinfo/phskc-info-x

West Nile Virus Updates and Current Testing Guidelines:
www.metrokc.gov/health/westnile/advisories.htm

Reported Cases of Selected Diseases, Seattle & King County 2008

	Cases Reported in July		Cases Reported Through July	
	2008	2007	2008	2007
Campylobacteriosis	38	26	193	124
Cryptosporidiosis	4	3	22	17
Chlamydial infections	578	448	3502	3218
Enterohemorrhagic *E. coli* (non-O157)	0	1	1	3
***E. coli* O157: H7**	6	3	15	11
Giardiasis	10	14	67	83
Gonorrhea	112	114	768	875
***Haemophilus influenzae* (cases <6 years of age)**	0	0	2	2
Hepatitis A	2	2	14	7
Hepatitis B (acute)	8	1	24	15
Hepatitis B (chronic)	60	66	525	479
Hepatitis C (acute)	0	0	8	4
Hepatitis C (chronic, confirmed/probable)	129	110	812	801
Hepatitis C (chronic, possible)	34	13	208	170
Herpes, genital (primary)	46	42	320	358
HIV and AIDS (new diagnoses only)	27	34	219	246
Measles	0	0	0	1
Meningococcal Disease	0	0	3	4
Mumps	0	0	1	4
Pertussis	8	8	44	43
Rubella	0	0	0	0
Rubella, congenital	0	0	0	0
Salmonellosis	22	30	116	150
Shigellosis	4	6	28	33
Syphilis	14	14	84	105
Syphilis, congenital	0	0	0	0
Syphilis, late	3	5	47	40
Tuberculosis	10	13	59	84

The *EPI-LOG* is available in alternate formats upon request.

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