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EPI-LOG

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Our New Chief

Dr. Jeff Duchin is the new Chief of Communicable Disease Epidemiology in the Prevention Division at the Seattle-King County Department of Public Health (SKCDPH). Dr. Duchin comes to us from the Centers for Disease Control and Prevention (CDC) where he most recently served as Medical Epidemiologist in the Division of HIV/AIDS Prevention while assigned to the SKCDPH. He recently completed subspecialty training in infectious diseases at the University of Washington. Dr. Duchin trained in internal medicine and in the Epidemic Intelligence Service (EIS) at the CDC. As a medical epidemiologist at the CDC, he worked in the Childhood and Respiratory Diseases Branch and in the Division of Tuberculosis Elimination, Surveillance and Epidemiologic Investigations Branch prior to his work in HIV/AIDS. Dr. Duchin's work in the EIS involved him in many infectious disease outbreak investigations which will provide the Epidemiology Unit with crucial experience necessary for our work. His current research interests include the epidemiology of tuberculosis transmission in Seattle-King County, drug-resistant bacterial infections, opportunistic infections among persons with AIDS and community-acquired respiratory tract infection. We look forward to working with Dr. Duchin and welcome him to the Department!

Hantavirus Update

With summer upon us, travel, camping, and revisiting summer cabins or homes are common activities, and ones that may increase our exposure to hantavirus. 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.

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 spread the virus.

Hantavirus Pulmonary Syndrome (HPS) is a serious, often deadly, respiratory disease that has been found mostly in rural areas of the western United States. Initial symptoms of HPS include fever, myalgia, nausea, vomiting and diarrhea. Respiratory symptoms begin 1 to 7 days later and rapidly worsen; pulmonary edema with hemodynamic decompensation occur 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 may range from 1 to 6 weeks.

Deer mice are the most common reservoir in the western U.S., although the rodent hosts of the four different hantaviruses known to cause HPS in North America are distributed throughout the contiguous U.S. In 1997, particularly in parts of the southwest, El Niño has been associated with increased winter rainfall, improving rodent food supplies and resulting in higher densities of rodents. Prolonged El Niño events preceded the first known HPS epidemic in 1993.

However, there is no evidence that human cases are increasing. In 1998, 5 cases have been confirmed nationwide at CDC, and 4 to 5 more cases identified by states are pending CDC confirmation; these figures are comparable to the same time period in 1997. As of July 7, a total of 186 cases have been reported. Current data suggest that the risk of acquiring HPS in Washington is very small. To date, 15 cases have been identified in Washington residents. Three cases were identified in 1997, including one in King County, and one case so far this year (in Franklin County).

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 (206-296-4774). The public may obtain rodent control information by calling 206-296-4949 for a recorded message. Information is also available on our website (under Communicable Diseases) at www.metrokc.gov/health or the CDC website at www.cdc.gov/ncidod/diseases/hanta/.

TB Part II

During 1997, the TB Control Program received 298 reports of suspected TB. Reports originate with medical providers who encounter persons with illnesses consistent with TB. Washington Law requires that such patients be reported because important public health interventions, such as investigation of contacts, may be indicated prior to verification of the suspected case. The trend of reporting suspected cases has increased over the past several years as medical practitioners have regained familiarity with TB as a clinical entity. Increased reporting of suspected cases, therefore, is an indicator of the awareness of TB by medical practitioners of Seattle-King County. It is also a measurement of the work load for the TB Program staff, as suspect cases often require consultation, contact investigations, and

monitoring of clinical status, cultures, and compliance with treatment, even though fewer than half become actual cases.

Nineteen (16.8%) of the 1997 cases were diagnosed through the TB Program's screening of high risk groups: 16 were diagnosed by screening newly-arrived immigrants determined to have abnormal X-rays during the immigration application process overseas and three were identified during contact investigations of active cases. Cases detected through screening activities are usually in an early, asymptomatic stage of TB, are rarely infectious, and respond very readily to treatment. From the standpoint of personal illness and public health implications, pulmonary cases detected through screening activities may be viewed as averted future infectious cases of TB.

The SKCDPH TB Clinic continued its heavy pattern of utilization during 1997, mainly by persons at high risk of TB. A total of 6,780 patients received services during the year, and the number of client visits totaled 21,276; 2,353 chest X-rays were performed. Forty percent of clients served were contacts of active cases, and another 27.5% were refugees newly-arrived from areas of high TB endemicity. Thirty-four percent of clients were white, 30% Asian, 18% African American, 9% Hispanic, and 1.4% Native American. A majority (69%) of clients served in the TB clinic reported a family income below the poverty level.

Department-wide, 15,289 tuberculin skin tests were performed, with 2,076 (13.6%) determined to be positive. The proportion of positive skin tests, by race/ethnicity, were: Asians 32.5%, Hispanics 23.7%, African American 14.4%, whites 9.2%, Native Americans 4.7%.

The Program's Outreach Team delivered 6,403 doses of TB medication directly to patients in the community in 1997. Among 66 patients who received directly-observed therapy through the Outreach Team, 64 (97%) completed their course of treatment. During the year, 15 patients with TB were housed by or had housing temporarily supported by the TB Control Program. Respite housing is available to TB patients for whom that benefit is viewed to be key to the successful completion of treatment. Since its establishment in 1995, the Program's housing program, with a budget of only $20,800, has become an indispensable component of our successful TB control plan for Seattle-King County.

Other ongoing initiatives include close collaboration with the SKCDPH Health Care for the Homeless Program and a growing partnership program with community clinics for provision of TB screening and preventive services in primary health care sites. The current decline in the incidence of TB in Seattle-King County may be attributable, at least in part, to this community's commitment to a strong TB control program, a large network (with the SKCDPH TB Control Program at the center) that includes area hospitals, community clinics, medical practitioners, clinical laboratories, social service agencies, and homeless shelters. Any savings in resources that accrue from a continued decline in TB cases will help promote targeted, intensified TB prevention efforts among identified subpopulations from this region where this activity remains a large and unmet need. A continuing commitment to strong TB control efforts in the face of declining TB morbidity is essential to prevent a resurgence in TB and the incursion of multi-drug resistant TB.

To Report: (area code 206)
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
http://www.metrokc.gov/health/

REPORTED CASES OF SELECTED DISEASES SEATTLE-KING COUNTY 1998

	CASES REPORTED IN JUNE		CASES REPORTED THROUGH JUNE	
	1998	1997	1998	1997
VACCINE-PREVENTABLE DISEASES				
Mumps	0	0	0	4
Measles	0	0	0	0
Pertussis	13	19	85	118
Rubella	0	0	1	1
SEXUALLY TRANSMITTED DISEASES				
Syphilis	4	1	19	4
Gonorrhea	70	74	490	386
Chlamydial infections	289	225	1693	1519
Herpes, genital	51	49	357	320
Pelvic Inflammatory Disease	30	19	126	146
Syphilis, late	4	5	16	23
ENTERIC DISEASES				
Giardiasis	18	21	100	107
Salmonellosis	27	27	82	110
Shigellosis	2	14	38	54
Campylobacteriosis	24	41	107	146
E.coli O157:H7	1	3	6	12
HEPATITIS				
Hepatitis A	20	37	287	227
Hepatitis B	1	6	26	22
Hepatitis C/non-A, non-B	0	0	1	2
AIDS	9	26	131	169
TUBERCULOSIS	15	17	57	64
MENINGITIS/INVASIVE DISEASE				
Haemophilus influenzae	0	0	1	1
Meningococcal disease	1	1	12	11