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INFLUENZA TESTING

Influenza testing is an important part of the Connecticut's influenza surveillance system. Identification of the dominant circulating influenza virus(es) each season is useful for predicting the number of cases and severity of illness. In addition, distinguishing outbreaks caused by influenza A from those caused by influenza B and other respiratory viruses is essential to help physicians decide whether to recommend amantadine prophylaxis and treatment for their high-risk patients.

The most effective way to identify the dominant virus(es) is by virus isolation from throat swabs collected from acutely ill patients early in the flu season. Therefore, the State of Connecticut Department of Public Health and Addiction Services encourages physicians to submit throat swabs for virus isolation to the Department's Virology Laboratory from patients with a typical influenza syndrome (abrupt onset of fever, myalgia, and cough). Specimens should be collected no later than three days after onset of symptoms and sent immediately to the Virology Laboratory, on wet ice if possible.

Throat swab kits (VRCs) may be obtained from the State Laboratory (203-566-2824).

To facilitate influenza surveillance in Connecticut, throat swabs submitted by a health care provider for influenza will be exempt from fees effective November 1, 1994 through January 31, 1995. In order to be eligible for the fee exemption, the health care provider must specify "FLU STUDY" in Section #1 of the Virology request

form. All requested information on the form should be provided as well.

In addition, health care providers are encouraged to report, as early as possible, clusters of influenza-like illness occurring in nursing homes and other health-care institutions. Assistance in the investigation of influenza outbreaks can be arranged through the State Epidemiology Program at 203 566-5058.

HUMAN EXPOSURE TO A RABID PONY AT A CONNECTICUT FARM

In October 1993, rabies was identified in a pony from a farm in Windsor, Connecticut. The case resulted in the largest number of people receiving rabies postexposure prophylaxis (PEP) after exposure to a single rabid animal in recent Connecticut history, attracted widespread media attention, and prompted changes in state regulations by the Department of Agriculture.

The pony was observed to be sick on Sunday, October 24th and examined by a veterinarian who noted a partial facial paralysis and cautioned the owner that rabies was a possibility. The pony died the next day and was confirmed to have rabies. On October 26, a press advisory recommending medical evaluation for people who had been to the farm was released by the local health department. Numerous inquiries from persons who had been to the farm and their physicians ensued.

The Epidemiology Program in collaboration with the University of Connecticut Health Center

(UCHC) conducted a study to identify people who had had contact with the pony, the type of exposure that occurred, and the number of people who received PEP. Standard indications for PEP following contact with a rabid animal include: 1) a penetrating bite wound, or 2) saliva contamination of an open wound or mucous membrane (1). Contacts such as petting are not considered an exposure.

A list of names of persons potentially exposed was compiled by physicians at UCHC who received calls from health care providers and persons seeking advice in the days following the press release. Requests for names were also made to primary care physicians in the area via a mailing from the state health department. A telephone interview was conducted with an adult member from each household in which a family member reported contact with the pony or received PEP. The questionnaire contained questions aimed at characterizing the exposure, including questions about saliva contact, presence of cuts or abrasions, and the likelihood of introducing the pony's saliva into the eyes, mouth or a wound.

Sixty-seven people were identified who had possible contact with the pony - 5 farm family members, the attending veterinarian, and 61 visitors to the farm. All members of the farm family received PEP. The veterinarian had been vaccinated previously and received booster vaccinations.

The 61 visitors came from 31 different households and ranged in age from 2 to 61 years, including 45 children aged 12 years and younger. Fifty-nine visitors petted the pony, and 42 fed the pony. Two persons were nipped by the pony, but in neither instance did the site bleed.

A total of 33 (54%) visitors received PEP. The press advisory recommended PEP be considered for persons exposed in the 14 days before the pony became ill. Of the 61 visitors to the farm, 45 had contact with the pony during the 14-day period, and of these, 32 received PEP. All 11 of the persons who had one or more types of expo-

sure received PEP. Of the 21 visitors who were unsure of exposure, 20 received PEP, including some who had fed the pony and might have put their fingers into their eyes or mouths. One person was treated who had saliva on his hands but did not have cuts or abrasions was treated.

Of the 10 visitors whose only advice came from an infectious disease specialist or the health department, none received PEP. All 18 visitors who were advised only by a primary care physician received PEP. Of the 32 visitors who consulted a primary care physician and either a specialist or health department, 14 received PEP. One visitor who went directly to a hospital emergency room received PEP.

EDITORIAL NOTE: The decision to begin PEP after contact with a rabid animal often encompasses factors beyond the standard criteria (1), including fear of the disease because of its high mortality and the uncertainties of specific exposure. The decision to start PEP lies with the physician and patient. Additional consultation with an infectious disease specialist or health department personnel may ease the decision making process for the physician, reduce anxiety for the patient, and avoid medical expenses associated with unnecessary treatment.

In response to this incident, an emergency order was issued by the Commissioner of the Department of Agriculture requiring the vaccination of all animals at least 30 days prior to possible contact with the public (required previously only for cats and dogs). Animals for which a licensed vaccine does not exist are not permitted to be in contact with the public. Because of concerns for the potential impact of the emergency order on humane shelters, pet shops, and nature centers, an exemption can be made if a record is maintained of each person who has contact with the animal enabling notification of the person in the event the animal becomes rabid.

REFERENCE

1. CDC. Rabies prevention - United States, 1991: recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1991;(No. RR-3) 3-9.

EMERGING INFECTIONS PROGRAM

The National Academy of Sciences has declared an urgent need to improve our ability to identify infectious disease threats and to respond to them effectively (1). The Academy called for a recognition that the health of the American people is inextricably linked to the health of people in other nations: infectious diseases can and do spread rapidly around the globe. To limit the potential for related crises, it strongly urged an improvement of the public health infrastructure at the local, State and federal levels.

With a diverse population of 3.3 million people and a relatively small geographic size, Connecticut is uniquely suited for studies of emerging infections. Over the last 10 years, the Connecticut Department of Public Health and Addiction Services (DPHAS) has used various surveillance techniques and resources to study the epidemiology of Lyme disease, parvovirus B19 infection during pregnancy, babesiosis, cat-scratch disease, and penicillin-resistant *Streptococcus pneumoniae* infections.

DPHAS currently receives federal funding for Lyme disease surveillance and community-based intervention, and for enhanced perinatal hepatitis B surveillance and prevention. In January 1994, cryptosporidiosis, streptococcal toxic shock syndrome, penicillin-resistant pneumococcal disease, and vancomycin-resistant enterococcal disease were made reportable.

In September 1994, Connecticut was one of two states in the country to receive funding through a cooperative agreement from the Centers for Disease Control and Prevention (CDC) to establish an Emerging Infections Program (EIP) (2). A 5-year project, the Connecticut EIP is a collaborative effort between DPHAS and the Department of Epidemiology and Public Health (School of Public Health) at the Yale University School of Medicine.

The goals of the Connecticut EIP are to assess the public health impact of emerging infections and to evaluate methods for their prevention and control. The following projects are included in the Connecticut EIP:

1. Active population-based laboratory surveillance for invasive disease caused by: antibiotic-resistant pneumococci, *Haemophilus influenzae*, *Neisseria meningitidis*, and Group A and B streptococci.
2. Population-based prospective surveillance and retrospective analysis of unexplained deaths of possible infectious etiology in previously healthy people.
3. Population-based surveillance of community-acquired pneumonia due to emerging or re-emerging infectious agents.
4. Active surveillance of human infections from *Ehrlichia* to define the spectrum of disease symptoms associated with such infections and determine the incidence and risk factors for infection.
5. Laboratory surveillance and geographic information system (GIS) analysis of case data to define risk factors for acquisition of cryptosporidiosis and target environmental and educational interventions.

DPHAS, the lead agency for this cooperative agreement, is responsible for Projects 1 and 5. Yale University is responsible for Projects 2, 3, and 4.

REFERENCES

1. Lederberg J, Shope RE, Oaks SC Jr, eds. Emerging infections: microbial threats to health in the United States. Washington, DC: National Academy Press, 1992.
2. CDC. Addressing emerging infectious disease threats: a prevention strategy for the United States. Atlanta, Georgia: U.S. Department of Health and Human Services, Public Health Service, 1994.

HUMAN GRANULOCYTTIC EHRlichiosis

In July 1984, an article was published in the *Journal of the American Medical Association* about human granulocytic ehrlichiosis (HGE), a newly described disease probably associated with ticks (1). The article described 12 patients with HGE who contracted their illness in Wisconsin or Minnesota.

According to Dr. J. Stephen Dumler, one of the article's co-authors and a pathologist at the University of Maryland, his laboratory has also confirmed a case of HGE involving a Connecticut resident (J.S. Dumler, personal communication, July 1994). The patient was hospitalized with a progressive atypical febrile illness at a hospital in New Haven in November 1992, and died in December 1992.

The diagnosis of HGE was confirmed in May 1994, when testing of the patient's sera confirmed a 4-fold rise in antibody titers to *Ehrlichia equi* (a marker for this newly recognized infec-

tion). The patient was from New Haven County, had not traveled out of state in the month before onset of illness, and had a history of being bitten by ticks.

Although the geographic domain and the incidence of this disease have not been defined, this information is of potential importance for physicians in Connecticut. Early detection and treatment of HGE with tetracycline or related antibiotics appear to offer the best chance for complete recovery. Unfortunately, at present, outside of a few research laboratories, there is no readily available diagnostic test for HGE.

If a physician suspects the diagnosis of HGE, please notify the Epidemiology Program at 566-5058. Although HBE is not reportable in Connecticut at this time, we are interested in knowing of other cases and can facilitate serologic testing.

REFERENCE

1. Bakken JS, Dumler JS, Chen SM, et al. Human granulocytic ehrlichiosis in the upper midwest United States: a new species emerging? *JAMA* 1994;272:212-8.

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