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EARLY INFLUENZA AND INFLUENZA TESTING

In August and early September 1993, two outbreaks of influenza type A were confirmed by the Louisiana Department of Health and Hospitals. Antigenic characterization of an isolate from one of these outbreaks by the Influenza Branch, Centers for Disease Control and Prevention (CDC) has shown the hemagglutinin of this virus to be similar to A/Beijing/32/92(H3N2), the type A(H3N2) strain included in the 1993-94 influenza vaccine.

The unusual occurrence of outbreaks of confirmed and suspected influenza in Louisiana in August and September has raised the question nationally of whether influenza vaccine should be administered earlier this year than is usually recommended. Adequate information is not yet available on which to base decisions about early vaccination in parts of the country other than Louisiana. For this reason, the CDC has recommended that state health departments begin active surveillance for influenza as soon as possible. The Connecticut Department of Public Health and Addiction Services will begin laboratory-based surveillance for influenza on October 1, 1993.

Isolation and identification of influenza virus 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 Health 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 (566-2824).

To facilitate influenza surveillance in Connecticut, throat swabs submitted by a health care provider for influenza will be exempt from fees effective October 1, 1993 through January 31, 1994. 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 566-5058.

NECROTIC SPIDER BITES IN CONNECTICUT

A woman from Wilton was admitted to John Dempsey Hospital in May 1993. Her chief complaint was that of a progressively worsening spider bite of her left forearm.

Five days prior to admission the woman had been working in her garden. When she returned indoors, she noticed a painful red lesion on her forearm. The pain and swelling continued to increase and a black eschar appeared in the center of the lesion. Two days prior to admission she sought treatment in an emergency department, where she was placed on cephalexin. The pain and size of the lesion continued to increase, and the following day the patient saw her private physician who changed her antibiotic to dicloxacillin. The wound continued to worsen, however, and the patient developed fever, chills, and malaise and subsequently presented to John Dempsey Hospital.

On admission to John Dempsey Hospital, the patient was afebrile with normal vital signs. On the volar aspect of her distal left forearm an erythematous tender lesion with a 5 cm diameter was noted. In the center of the lesion was a dark appearing eschar with a surrounding ecchymotic area. The patient was admitted to the hospital and placed on intravenous ampicillin/sulbactam. The lesion continued to increase in size, while the pain and malaise worsened. Later that night, the wound was surgically excised and debrided. Necrotic tissue down to the fascia of the underlying muscles was removed. The patient subsequently recovered and skin grafting over the excised area was eventually performed. Cultures of the wound site were all negative. The patient never developed signs of hemolysis. The patient was discharged with a diagnosis of a necrotic spider bite, probably caused by a brown recluse spider.

Two other patients with reported necrotic spider bites on their extremities have died from unknown causes. At Yale-New Haven Hospital, a 45 year

old male from Woodbridge presented with a necrotic appearing lesion on his thigh and fever of 103.4°F. The patient died within 18 hours of onset of his symptoms. He had a history of coronary artery disease with a recent negative stress test. At St. Vincent's Hospital, a 55 year old Fairfield resident with a necrotic lesion of his foot died suddenly from what appeared to be a pulmonary embolus. In both of these fatalities, an association between the necrotic lesions and the cause of death has not been determined.

EDITORIAL NOTE: Human cases of necrotic spider bites have been recently reported in Connecticut. Although no specimens have been submitted for identification, the brown recluse spider (*Loxosceles reclusa*) was the suspected arthropod that caused the clinical manifestations. Connecticut is not within the normal range of brown recluse spiders, which have a more mid-western and southern distribution in Arkansas, Kansas, Missouri and in the southeastern United States. It is recognized, however, that these spiders could enter Connecticut in cargo shipments or even in mailed packages. It is highly unlikely that these spiders could survive Connecticut winters in the outdoors, but existence in human dwellings is possible. *Chiracanthium mildeji*, a common spider in Connecticut, also can cause necrotic skin lesions. Like the brown recluse spider, very few *C. mildeji* specimens have been submitted for confirmation in connection with necrotic bites. Moreover, there may be other spider species, among the hundreds present in Connecticut, that may be causing necrotic arachnidism in humans.

To determine what species may be causing necrotic skin lesions, spiders that have been captured following a bite should be preserved in isopropyl alcohol or 70% ethyl alcohol. Specimens from those bites which result in necrotic tissue damage may be sent for identification to Ken Welch, Connecticut Agricultural Experiment Station, 123 Huntington Street, New Haven, Connecticut 06512, Tel. No. 789-7241. In addition, Dr. Marc Bayer, Medical Director of the Connecticut Poison Control Center is available

for clinical consultation at 679-4540 during the day, and 1-800-343-2722, evenings and weekends.

ESCHERICHIA COLI O157:H7

In the first 8 months of 1993, 22 cases of Escherichia coli O157:H7 infection were reported to the Epidemiology Program, Connecticut Department of Public Health and Addiction Services (DPHAS). Cases were reported from five (Fairfield, Hartford, Litchfield, New Haven, Tolland) of the state's eight counties. Case-patients ranged in age from 2- 81 years, with a mean of 15.1 years. Fourteen (64%) of the cases occurred in persons \leq 9 years of age. Twelve of the cases occurred in females. Sixteen of the 22 cases (73%) had onset of illness during June-August.

In 17 of the 22 cases reported in 1993, the E. coli O157:H7 isolates were confirmed by five acute care hospital laboratories. One of these laboratories has routinely tested for E. coli for the past two years and accounted for 11 (65%) of these isolates. Over the last two months, the other four hospital laboratories began to routinely test for E. coli. Five cases were confirmed by three private clinical laboratories.

EDITORIAL NOTE: E. coli O157:H7 has emerged as an important pathogen since it was first linked to human illness in 1982. E. coli O157:H7 is an important cause of nonbloody and bloody diarrhea, and the major cause of hemolytic uremic syndrome (HUS). The incidence of E. coli O157:H7 infections in the United States is unknown, but 10,000 to 20,000 cases are estimated to occur each year.

In recent studies, 8-18% of persons with bloody diarrhea were infected with this pathogen. In fact, in these studies E. coli O157:H7 was the most common enteric pathogen isolated. Furthermore, outbreak investigations have demonstrated that most infections with E. coli O157:H7 are never identified because laboratories do not routinely use the simple culture techniques needed to screen for this organism.

The state health department strongly encourages clinical laboratories to routinely screen at least all bloody stool specimens for E. coli O157:H7 using sorbitol-MacConkey medium, and to send suspect strains to the state laboratory for further identification. Sorbitol-MacConkey agar plates are reasonably priced and available from all major commercial media suppliers.

In Connecticut, E. coli O157:H7 has been a laboratory reportable disease since 1990. Reporting of cases of E. coli O157:H7 can lead to rapid identification of outbreaks and public health intervention.

MRSA GUIDELINES

Methicillin-resistant Staphylococcus aureus (MRSA) has been recognized as an important cause of nosocomial infections since the 1960's. Increasingly, institutional facilities in Connecticut are caring for MRSA patients. This increase has raised several concerns regarding interfacility transfer and management of these patients. These concerns prompted the formation of a MRSA Interagency Advisory Committee in January 1993. This committee consisted of health care workers from both acute and long term care facilities and representatives from the Connecticut Department of Public Health and Addiction Services.

The goal of the Advisory Committee was to develop a document that would review the epidemiology of MRSA and would serve as a guide for more consistent management of MRSA patients. These guidelines, which emphasized the importance of communication between transferring agencies and the use of universal body substance precautions in the care of all patients, were recently distributed to all infection control practitioners and administrators of all acute and long term care facilities.

Copies of these guidelines are available by contacting the Connecticut Department of Public Health and Addiction Services, Epidemiology Program, 150 Washington Street, Hartford, Connecticut 06106, (203) 566-5058.

STAFF ASSIGNMENTS

On July 1, 1993, Douglas Hamilton, MD, PhD took a position with the International Branch, Division of Field Epidemiology, Epidemiology Program Office, at the Centers for Disease Control and Prevention in Atlanta, Georgia. Dr. Hamilton made important contributions to the Epidemiology Section during his 2-year assignment here with the CDC's Epidemic Intelligence Service. We wish him well in his new assignment.

In July 1993, Christine L. Roberts, MBBS, MPH began her 2-year assignment as the Epidemic Intelligence Service Officer for Connecticut. Dr. Roberts is a physician who received her medical degree from the University of Sydney in 1981. She did her residency training at the Hornsby Kuringgai Hospital in Australia. She received her public health degree from the University of Sydney in 1991. In the last 3 years, she completed a public health training program in New South Wales.

REPORTS OF SELECTED COMMUNICABLE DISEASES, CONNECTICUT, YEAR TO DATE (through August 28, 1993, Report Week 34)

Disease	1993	1992	% Change From 1992
AIDS	1,222	330	+ 270% *
GONORRHEA	3,025	3,729	- 19%
SYPHILIS P&S	126	180	- 30%
MEASLES	9	4	+ 125%
RUBELLA	0	1	- 100%
TUBERCULOSIS	102	98	+ 4%
HEPATITIS A	64	42	+ 52%
HEPATITIS B	46	117	- 61%
SALMONELLOSIS	536	452	+ 19%
SHIGELLOSIS	197	107	+ 84%

* Increase due primarily to change in C.D.C. Case Definition.

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