

# CONNECTICUT EPIDEMIOLOGIST

State of Connecticut Department of Public Health and Addiction Services  
Epidemiology Section, Susan S. Addiss, MPH, MUR, Commissioner

November 1993

Volume 13 No. 5

## CAT-SCRATCH DISEASE

Cat scratch disease (CSD) is an infectious disease, usually self-limited, associated with cat scratches or bites. Recent studies suggest most CSD is caused by a rickettsial-like organism, *Rochalimaea henselae*. CSD has been a reportable disease in Connecticut since January 1, 1992.

The Department of Public Health and Addiction Services (DPHAS) established the state-wide surveillance system for CSD to define the epidemiology of CSD in Connecticut and to conduct studies to identify risk factors for the development of CSD (1).

**CSD WILL CONTINUE TO BE A REPORTABLE DISEASE THROUGH DECEMBER 1993.**

The surveillance case definition is unexplained lymphadenopathy in a person who had a documented exposure to cats and who was diagnosed after January 1, 1993 as having CSD. New cases can be reported, and serological testing arranged, by calling Starr-Hope Ertel, an epidemiologist with the Epidemiology Program, DPHAS. Please call Ms. Ertel at 566-5058.

### Reference

1. Zangwill KM, Hamilton DH, Perkins BA, Regnery RL, Plikaytis BD, Hadler JL, Cartter ML, Wenger JD. Cat scratch disease in Connecticut: epidemiology, risk factors, and evaluation of a new diagnostic test. *N Eng J Med* 1993;329:8-13.

## MULTIDRUG-RESISTANT TB IN CONNECTICUT

MDR-TB is defined by the CDC as tuberculosis caused by *Mycobacterium tuberculosis* (TB) resistant to at least isoniazid (INH) and rifampin. The first case in Connecticut of MDR-TB in a person without previous treatment for TB was recently reported.

A young man from New York City was staying with relatives in Connecticut when he was picked up on outstanding charges and incarcerated in the New Haven jail. Within a week of incarceration it was noted that he had daily high fever spikes with marked weight loss and a dry cough, and he was transferred to the jail infirmary. Since the infirmary had no true negative-pressure isolation rooms, the inmate was isolated in a single cell. Infirmary work-up included serial chest x-rays, sputum smears for AFB and evaluation for immunosuppression. Chest x-rays showed an anterior chest mass but no infiltrates. CD4 count was 21 cells/uL. A satisfactory sputum specimen for AFB was not obtained until more than 2 weeks into the infirmary stay. Although the smear was 2-plus positive, it took 2 weeks to receive the report. After 3 weeks of continued symptoms in the infirmary, he developed acute vomiting and dehydration and was transferred to a local hospital.

Upon transfer to the hospital, the inmate was placed in a private room but not one of the designated negative-pressure isolation rooms. He remained in that room for 13 days while workup of his fevers, weight loss and chest lesion continued. Five days after admission, the sputum smear

was reported as 4-plus positive for AFB and the patient began therapy for presumed M. avium complex infection. Nine days into admission, the AFB were presumptively identified by PCR as TB. Four days later, resistance to INH and rifampin was reported and the patient was transferred to a negative-pressure isolation room and started on therapy appropriate for MDR-TB. Final antibiotic sensitivity confirmed resistance to INH, rifampin and pyrazinamide.

Since then his condition has stabilized. However, evaluation of the ventilation pattern of his original room showed it to be positive pressure with respect to the hospital wing hallway.

Because the patient was not in effective isolation or on appropriate treatment for 4 weeks in jail and 2 weeks in the hospital, hundreds of employees in both settings and dozens of inmates have been identified as close contacts and are being evaluated with serial tuberculin testing. At least three jail infirmary employees and one inmate have had tuberculin conversions. Another two jail employee-contacts and two inmates have positive tuberculin skin tests without previous baseline testing. Six known HIV-positive inmates are also among the close contacts.

All tuberculin positive and known HIV-infected close contacts are being offered preventive therapy with ethambutol and either ofloxacin or ciprofloxacin. Investigation at both sites is continuing.

*Editorial Note:* MDR-TB now affects more than 20% of prevalent TB cases in New York. Substantial MDR-TB transmission has occurred in hospital, correctional and community settings. MDR-TB must be considered in any person, particularly those who are immunosuppressed, in whom a diagnosis of TB is being entertained and who has lived, worked or has been in an institutional setting in New York in the past few years. Initial treatment regimens in such persons should take into account the possibility of at least INH and rifampin resistance (1).

Inadequate isolation and delays in laboratory diagnosis led to preventable and prolonged exposure to MDR-TB of many individuals in both the jail and hospital. To limit the potential for a similar problem in the future, acute care hospital and correctional infirmary administrators should do the following:

- a) ensure that sufficient negative-pressure isolation rooms exist to be able to isolate all persons with a cough for whom tuberculosis is high on the differential diagnostic list (2);
- b) be sure that all relevant clinical staff know the indications for proactive isolation in negative pressure rooms; and
- c) develop laboratory capacity and procedures to ensure that sputum smear results for AFB are performed and reported back within 24 hours of their being obtained.

Persons with HIV-infection are at extremely high risk of infection from and development of disease with both drug-sensitive and drug-resistant strains of TB. To limit the potential for acute and prolonged TB outbreaks, HIV-infected close contacts of TB cases should be identified, receive frequent clinical monitoring and be placed on appropriate preventive therapy as soon as possible (1,3).

#### References

1. Iseman MD. Treatment of multidrug-resistant tuberculosis. NEJM 1993; 329 (II): 784-91.
2. CDC. Guidelines for preventing the transmission of tuberculosis in health-care settings, with special focus on HIV-related issues. MMWR 1990; 39 (no. RR-17):1-29.
3. CDC. Management of persons exposed to multidrug-resistant tuberculosis. MMWR 1992; 41 (no. RR-11):61-71.

## OUTBREAK OF ESCHERICHIA COLI 0157:H7

In September 1993, the Connecticut Department of Public Health and Addiction Services (DPHAS) conducted an investigation of an outbreak of gastroenteritis caused by E. coli 0157:H7. This is the first outbreak of this illness recognized in Connecticut.

Twenty-one of 153 individuals developed a diarrheal illness after consuming food at one of two picnics held on Labor Day weekend in southwestern Connecticut. Food for both picnics was supplied by the same country club kitchen. Four individuals (2 adults and 2 children) were hospitalized. Stool cultures from six persons were positive for E. coli 0157:H7.

The investigation linked cases to consumption of undercooked commercially prepared hamburger patties. The State Laboratory has isolated E. coli 0157:H7 from samples of the remaining implicated lot.

The U.S. Department of Agriculture (USDA) has attempted to trace the original source of the hamburger. The patties, which were made in a beef production plant in West Haven, were produced from boneless chucks that originated from a large Midwestern beef packing company. Trim-mings, which were incorporated into the boneless chucks, could have originated from any of six large slaughter houses. No further traceback is planned by USDA.

### RABIES UPDATE

The raccoon rabies epizootic entered Connecticut in March 1991, when a rabid raccoon was found in Ridgefield, which borders New York state. As of October 22, 1993, the cumulative number of confirmed animal rabies cases associated with the epizootic was 1636 (Table 1). Cases have now been confirmed from 120 of Connecticut's 169 cities (Figure 1).

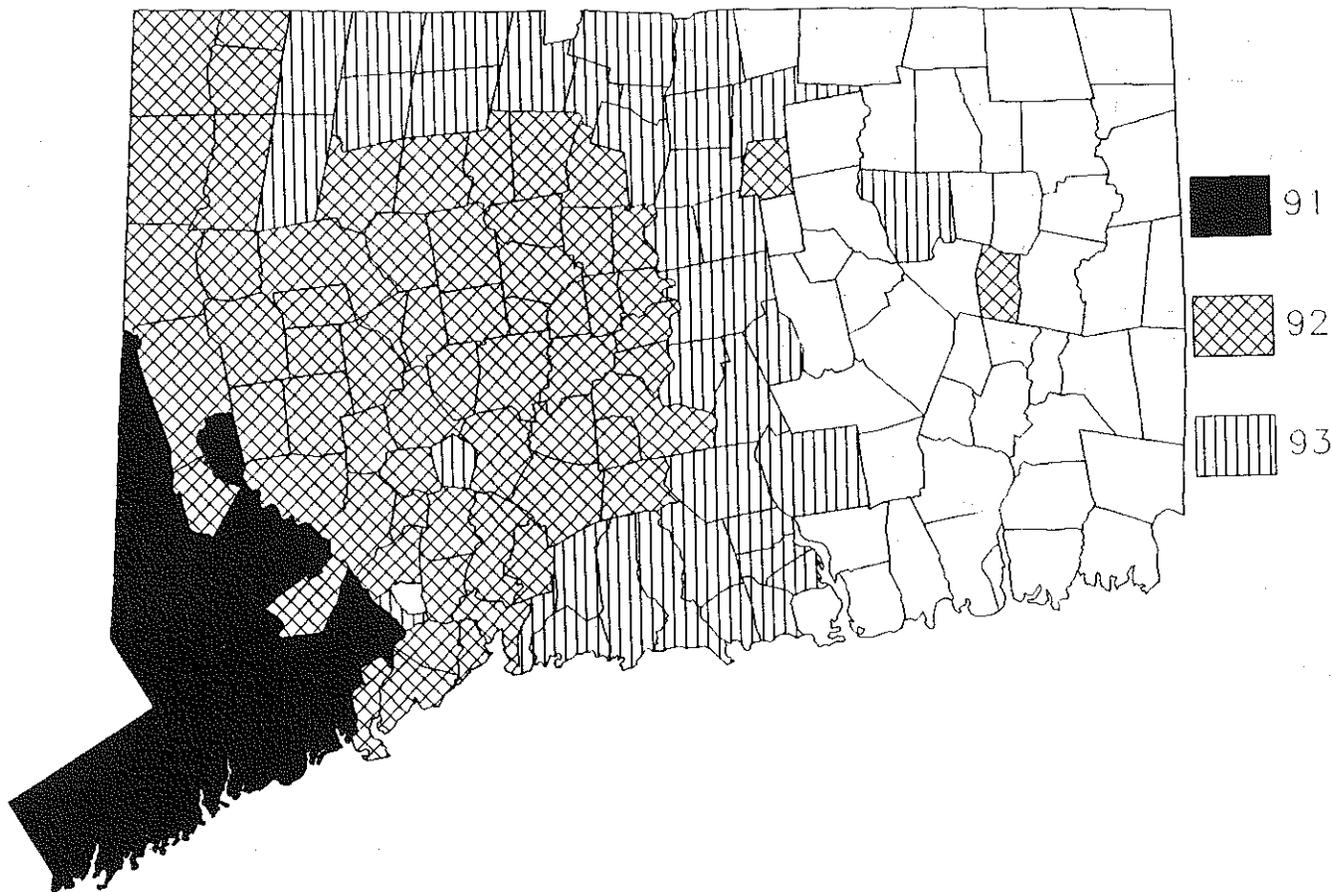
Additional information or technical assistance can be obtained by calling:

1. Your local health department or,
2. Department of Health Services' Epidemiology Program at 566-5058 for questions concerning the management of human exposures. Emergency consultation after hours and on weekends can be obtained by calling the Department's emergency telephone number (566-4800),
3. Department of Environmental Protection's Wildlife Division at 566-4683 or 566-2841 for questions concerning wild animals. Emergency consultation after hours and on weekends can be arranged by calling the DEP Communications at 566-3333, or
4. Department of Agriculture's Canine Control Division at 566-5924 or the State Veterinarian at 566-4616 for questions concerning domestic animals.

**Table 1. Animals that tested positive for rabies by species, Connecticut March 1991 - October 22, 1993.**

Species	# Rabies Positive (%)	
Raccoon	1443	(88.2)
Skunk	148	(9.0)
Cat	19	(1.1)
Woodchuck	12	(0.7)
Fox	6	(0.4)
Dog	3	(0.2)
Sheep	3	(0.2)
Cow	1	(0.1)
Horse	1	(0.1)
<b>TOTAL</b>	<b>1636</b>	<b>(100.0)</b>

Figure 1. Raccoon Rabies Epizootic, Connecticut, March 1991 - October 1993.



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