CONNECTICUT EPIDEMIOLOGIST

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RABIES UPDATE

Between March 27 and October 31, 1991, 94 cases of raccoon rabies were confirmed in Connecticut (Figure 1). These cases occurred in the following towns: Ridgefield (22), Wilton (14), Danbury (13), New Fairfield (11), Redding (7), Stamford (5), Bethel (4), New Canaan (4), Fairfield (3), Greenwich (3), Weston (3), Bridgewater (1), Easton (1), Norwalk (1), Sherman (1), and an unknown Fairfield County town (1).

In late September, two rabid woodchucks were identified, one from Ridgefield and another from New Canaan. These are the first rabid woodchucks ever documented in Connecticut. Four rabid skunks have been identified from Danbury (2), Ridgefield (1), and Wilton (1). These are the first skunk cases in Connecticut since 1964. Overall, 73% of these cases involved a human or domestic animal exposure to rabies.

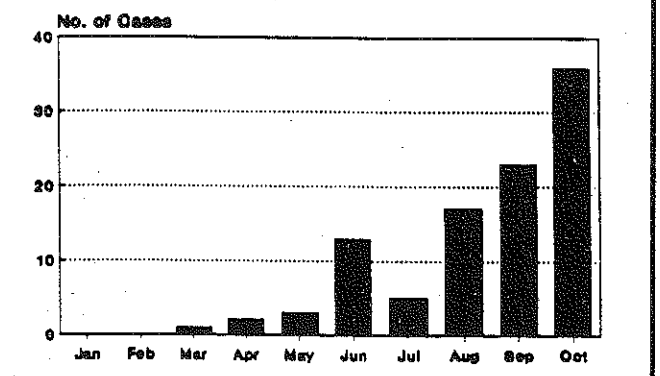

Figure 1

So far, the rabies epizootic in raccoons has been confined to Fairfield County, except for one case in a bordering Litchfield County community. The epizootic is expected to spread across Connecticut over the next year. To date, raccoon rabies has been identified in 14 of the 23 towns that comprise Fairfield County (61%). The rate of spread is expected to be greatest in the fall and spring when young raccoons are more mobile.

Endemic bat rabies caused by an antigenically different strain of the rabies virus continues to occur. In 1991, seven cases have been reported from the following towns: Canterbury (1), Danbury (1), Mansfield (1), Newington (1), Newtown (1), Norwich (1) and Wethersfield (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.

REVISED RABIES TESTING CRITERIA

The State Health Department Virology Laboratory has revised the criteria for rabies testing. Testing will only be performed on animals which have exposed humans or domestic animals. Testing will no longer be done in non-exposure situations involving animals exhibiting unprovoked aggressive behavior towards humans. With the exception of woodchucks, rodents (squirrels, mice, rats) or rabbits will not be tested unless they have bitten a human and have spent time outdoors in the past six months.

Suspect rabies cases that do not meet the above criteria may be tested for rabies and additional diseases at the University of Connecticut Animal Disease Diagnostic Laboratory in Storrs (486-3738). *If there is any question that an animal should be tested, the state virology lab should be contacted at 566-4776.* After hours emergency consultation for questions concerning human exposures can be arranged by contacting the Epidemiology Program at 566-4800.

INFLUENZA TESTING

Isolation and identification of influenza virus is an important part of the State'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 (DOHS) 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 December 1, 1991 through January 31, 1992. In order to be eligible for the fee exemption, the *physician 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.

FLU SHOT COVERAGE IN CONNECTICUT

During 1990, approximately 150 Connecticut adults aged 18 years or older were interviewed each month by telephone as part of the Behavioral Risk Factor Survey. Coordinated by the Division for Chronic Diseases, DOHS and funded by the federal Centers for Disease Control, the survey is designed to obtain data on risk factors related to the leading causes of death. All participating states (currently all 50; 45 in 1990) ask the same core questions, but may customize the questionnaire with their own added questions.

In 1990, the Connecticut survey included the following state specific question: "Next, I would like to ask you about influenza vaccination, commonly called a flu shot. Have you had a flu shot in the last 12 months?" This question had been pilot tested in other states.

The total sample size for Connecticut was 1,865. Data were weighted by age and sex according to the 1989 population estimates obtained from the Census Bureau. Overall, 14% of adults in the state had had a flu shot in the past 12 months. For those adults $\geq$65 years of age (n=305), 38% had had a flu shot, while 9% of those <65 years of age (n=1,560) had had one.

INFLUENZA SEASON APPROACHES

Both influenza A and influenza B circulated at low levels worldwide from October 1990 through September 1991. An increase in the proportion of U.S. isolates subtyped as influenza A (H3N2) after March 1991 and the identification of sporadic isolates of influenza A (H1N1) and influenza A (not subtyped) in mid-September 1991 suggest that influenza A may predominate in the United States during the 1991-92 influenza season.

Morbidity and mortality associated with influenza can be reduced by annual vaccination of persons at increased risk for influenza-related complications and their contacts (1). However, in the United States, only 30% of persons belonging to groups at high risk for influenza-related complications are vaccinated each year (2). One of the year 2000 national health objectives is to achieve influenza vaccination levels of at least 80% in institutionalized older or chronically ill persons, and at least 60% in noninstitutionalized high-risk persons (3).

Persons at increased risk for complications from influenza include those $\geq$65 years of age; all residents of nursing homes or chronic-care facilities; persons with chronic pulmonary or cardiovascular disorders (including children with asthma); persons requiring medical follow-up during the past year for chronic metabolic diseases, renal dysfunction, hemoglobinopathies, or immunosuppression; and children and teenagers on long-term aspirin therapy, who are at increased risk for Reye syndrome if infected with influenza. In addition, vaccination is recommended for all persons who provide care for or live with high-risk persons, including health-care providers and household members.

Antibody titers that are protective against influenza infection are achieved approximately 2 weeks following vaccination and begin to decline after approximately 4-6 months. The 1991-92 trivalent influenza vaccine contains hemagglutinin antigens from A/Beijing/353/89-like(H3N2), A/Taiwan/1/86-like(H1N1), and B/Panama/45/90-like viruses, which closely resemble recently identified strains.

Because substantial influenza activity in the United States rarely occurs before December, November is the optimal time for vaccination campaigns. When influenza surveillance indicates the occurrence of regional influenza activity before December, vaccination programs should be initiated as soon as the currently recommended vaccine is available. Age-specific vaccination recommendations for the 1991-92 U.S. influenza season have been published (Table 1)(1).

Amantadine is an adjunct to vaccination for prevention and control of influenza A, particularly in institutional settings. Advanced contingency planning (e.g., individualized standing orders for amantadine that can be implemented at the start of an influenza A outbreak) can facilitate rapid implementation of chemoprophylaxis. Amantadine can provide effective prophylaxis for persons who are unvaccinated and, because a full protective response from vaccination requires 2 weeks to develop, for those vaccinated after influenza A is already circulating in the community. Because amantadine is ineffective against influenza B, culturing pharyngeal or nasal secretions of persons with an influenza-like illness can be helpful in guiding influenza control measures (i.e., by detecting and identifying specific influenza types/subtypes in the community).

From October through May, surveillance information is updated weekly at CDC and is available by telephone (CDC Voice Information System (influenza update) [404] 332-4555) or through the CDC Information Service on the Public Health Network electronic bulletin board. In addition, periodic updates about influenza are published in MMWR. Additional information on local influenza activity is available from state and local health departments.

References

1. ACIP. Prevention and control of influenza: recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1991;40(no. RR-6).
2. Rodgers DV, Strikas RA, Hardy AM, Park C, Zell ER, Williams WW. Influenza and pneumococcal vaccination in the elderly: results of the 1989 National Health Interview Survey (Abstract). In: Program and abstracts of the 119th annual meeting of the American Public Health Association. Washington, D.C: American Public Health Association, 1991 (in press). Health Association. Washington, DC: American Public Health Association, 1991 (in press).
3. Public Health Service. Healthy people 2000: national health promotion and disease prevention objectives. Washington, DC: US Department of Health and Human Services, Public Health Service, 1991:122; DHHS publication no. (PHS)91-50213.

[Adapted from MMWR 1991;40:710-12]

TABLE 1. Influenza vaccine* dosage, by patient age — United States, 1991–92 season

Age group	Product†	Dosage	No. doses	Route§
6–35 mos	Split virus only	0.25 mL	1 or 2¶	IM
3–8 yrs	Split virus only	0.50 mL	1 or 2¶	IM
9–12 yrs	Split virus only	0.50 mL	1	IM
>12 yrs**	Whole or split virus	0.50 mL	1	IM

*Contains 15 µg each of A/Beijing/353/89-like(H3N2), A/Taiwan/1/86-like(H1N1), and B/Panama/45/90-like hemagglutinin antigens in each 0.5 mL. Manufacturers include: Connaught Laboratories, Inc. (distributed by E.R. Squibb & Sons, Inc.) (Fluzone® whole or split); Evans Medical Ltd.-Lederle Laboratories (distributed by Lederle Laboratories) (Flu-Imune® purified surface antigen vaccine); Parke-Davis (Fluogen® split); and Wyeth-Ayerst Laboratories (Influenza Virus Vaccine, Trivalent® split). Further product information is available from Connaught, (800) 822-2463; Lederle, (800) 533-3753; Parke-Davis, (800) 223-0432; and Wyeth-Ayerst, (800) 950-5099.

†Because of the lower potential for causing febrile reactions, only split-virus vaccines should be used for children. They may be labeled as "split," "subvirion," or "purified-surface-antigen" vaccine. Immunogenicity and side effects of split- and whole-virus vaccines are similar for adults when vaccines are used at the recommended dosage.

§The recommended site of vaccination is the deltoid muscle for adults and older children. The preferred site for infants and young children is the anterolateral aspect of the thigh.

¶Two doses are recommended for children <9 years of age who are receiving influenza vaccine for the first time.

**Corrected from *MMWR Recommendations and Reports* published May 24, 1991 (1).

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