

Needle and Syringe Legislation — Continued

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*Epidemiologic Notes and Reports***Tetanus Fatality — Ohio, 1991**

In August 1991, the Ohio Department of Health received a report of a fatal case of tetanus. This report summarizes the investigation of this case.

On July 21, 1991, an 80-year-old woman sought treatment in the emergency department of a hospital in central Ohio because of a stiff jaw and dysphagia. On examination, she had slightly slurred speech and difficulty opening her mouth but no difficulty breathing. A wood splinter from a forsythia bush had been lodged in her left shin approximately 1 week; the wound site was erythematous and draining purulent material. The emergency room physician diagnosed tetanus and admitted the woman to the hospital. Treatment included tetanus immune globulin (3000 units) and tetanus toxoid (0.5 cc) and intravenous clindamycin because of a reported history of penicillin allergy.

The patient had no history of any previous tetanus vaccinations. She had been treated at an undetermined time in the 1960s for an infected wound associated with a fractured ankle. In addition, she had sought medical care periodically for treatment of hypertension and other medical problems.

The patient's clinical status gradually deteriorated, and mechanical ventilation was required because of increasing generalized rigidity. During the ensuing 2-week period, she was treated for tremors, muscle spasms, abdominal rigidity, apnea, pneumonia, and local infection from her leg wound. Despite aggressive treatment, the patient died on August 5.

As a result of this case, a public health nurse, serving as part of the Occupational Health Nurses in Agricultural Communities (OHNAC) project*, instituted community-wide educational activities to increase tetanus vaccination coverage among adults. Following these educational efforts, from August 1991 through July 1992, the number of adults receiving tetanus vaccination from the county health department increased 51%[†] over the previous 12 months (79 vaccinations compared with 52, respectively).

*OHNAC is a national surveillance program conducted by CDC's National Institute for Occupational Safety and Health that has placed public health nurses in rural communities and hospitals in 10 states (California, Georgia, Iowa, Kentucky, Maine, Minnesota, New York, North Carolina, North Dakota, and Ohio) to conduct surveillance of agriculture-related illnesses and injuries that occur among farmers and farm workers and their family members. These surveillance data are used to reduce the risk for occupational illness and injury in agricultural populations.

[†]The 51% increase in vaccinations may underestimate the total effect of this intervention because it does not include persons who obtained vaccinations from private physicians or from providers in neighboring counties.

Tetanus — Continued

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Editorial Note: The risk for tetanus is greater in older (aged ≥ 60 years) persons who lack protective levels of antitoxin (1,2). Although tetanus is preventable through adequate vaccination, 117 cases of tetanus were reported to CDC during 1989 and 1990 (3). Supplemental information available for 110 of these cases indicates the case-fatal-ity rate was 24%. Of 109 persons for whom age was known, 63 were aged ≥ 60 years. Of the 37 persons in this age group for whom vaccination status was known, 34 (92%) were inadequately vaccinated (CDC, unpublished data, 1992).

Tetanus toxoid is a highly effective vaccine. Protective levels of serum antitoxin are generally maintained for at least 10 years in properly vaccinated persons (4). After completion of the primary vaccination series, booster doses of tetanus toxoid, combined with diphtheria toxoid (as Td) every 10 years are recommended by the Advisory Committee on Immunization Practices, the American College of Physicians, the American Academy of Family Physicians, and the American Academy of Pediatrics.

This report and others underscore the consequences of missed opportunities for vaccination (3). Although the patient in this report had numerous prior contacts with the health-care system, she had no history of vaccinations against tetanus. Of the 57 persons with tetanus in 1989 and 1990 for whom vaccination status was known, 45 (79%) reported ever having received ≤ 2 doses of tetanus toxoid. In addition, of the 12 who had sought medical care for their injuries and for whom tetanus toxoid was indicated, 11 were not vaccinated (3).

Wounds such as that described in the patient in this report are common in persons with tetanus and may not be considered sufficiently severe by the person to warrant a visit to a health-care provider. In 1989 and 1990, only 27 (31%) of 86 persons with tetanus and a clear antecedent acute injury sought medical treatment for their wounds (3). Therefore, internists, family practitioners, occupational physicians and other primary health-care providers who treat adults should use every opportunity to review the vaccination status of their patients and administer Td and other indicated vaccines as appropriate.

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Effectiveness in Disease and Injury Prevention

Impact of New Legislation on Needle and Syringe Purchase and Possession — Connecticut, 1992

Human immunodeficiency virus (HIV) and other bloodborne pathogens are transmitted among injecting-drug users (IDUs) through the reuse and sharing of contaminated needles and syringes (NSs) (1). Of the 689 acquired immunodeficiency syndrome (AIDS) cases reported in Connecticut in 1992, 413 (60%) were associated with injecting-drug use. To help reduce IDUs' use of contaminated NSs, Connecticut enacted laws effective July 1, 1992, that allow the purchase without a prescription of up to 10 NSs at one time in pharmacies and the possession of up to 10 clean NSs.* Before this date, purchase and possession of NSs without a prescription had been illegal in Connecticut. This report presents preliminary information from the first 5 months of an ongoing evaluation to determine whether the new laws affected pharmacy-based NS sales, IDUs' reported knowledge of the laws and places to obtain NSs, and law enforcement officers' risk for needlestick injuries.

Investigation of Pharmacy-Based NS Sales

In June 1992, eight pharmacies in Hartford, a city of 139,739 (1990 U.S. Census), were enrolled in a sentinel surveillance system to monitor pharmacy-based NS sales. For 1992, the annual incidence of AIDS in Hartford was 86 cases per 100,000 residents. All sentinel pharmacies were located in neighborhoods where injecting-drug use was reported to be prevalent. Monthly prescription and nonprescription NS sales for each participating pharmacy were monitored beginning July 1992.

By November 1992, six (75%) of the eight pharmacies were selling nonprescription NSs. The number of nonprescription NSs sold by these pharmacies increased steadily each month through October 1992 (480 in July; 856, August; 1143, September; and 1560, October).

In the two pharmacies not selling nonprescription NSs in November, pharmacists reported they had sold nonprescription NSs when the law went into effect, but cited IDU-related incidents (i.e., a used syringe was found on a shelf and an IDU disrupted business) in their pharmacy as the reason for now refusing to sell.

*Connecticut General Statutes, Sections 21a-65, 21a-240, 21a-267, 1992. Under the new laws, pharmacies are permitted, but not required, to sell NSs without a prescription.