Update on the Supply of Tetanus and Diphtheria Toxoids and of Diphtheria and Tetanus Toxoids and Acellular Pertussis Vaccine

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DURING THE LAST QUARTER OF 2000, THE U.S. Public Health Service learned of a shortage of tetanus and diphtheria toxoids (Td) and tetanus toxoid (TT) resulting from decreased production of these vaccines by the two U.S. manufacturers. Previously published recommendations outlined priorities for use of the limited supply of Td and TT.¹ The shortage was expected to be resolved by early 2001; however, on January 10, 2001, Wyeth Lederle (Pearl River, New York)² announced it had stopped production of tetanus toxoid–containing products. Although a small amount of Td is produced by the University of Massachusetts for local distribution, Aventis Pasteur (Swiftwater, Pennsylvania) is now the sole nationwide distributor of Td and TT. Aventis Pasteur is shipping limited quantities of vaccine to assure a wide distribution of available doses.

In accordance with previous recommendations, priority will be given to clinics and hospitals that treat acute wounds; continuing to prioritize Td and TT use will be necessary until supplies are restored.¹ Clinics and hospitals in need of vaccine for wound care should call Aventis Pasteur, telephone (800) 822-2463. Aventis Pasteur is increasing the amount of Td production. However, because of the long production time required, the shortage is not expected to be resolved for 12-18 months. In addition to Wyeth Lederle discontinuing production of its tetanus and diphtheria toxoids and acellular pertussis vaccine (DTaP; ACEL-IMUNE³), Baxter Hyland Immuno Vaccines (formerly North American Vaccine, Inc.) (Baltimore, Maryland) is not producing its DTaP vaccine (Certivaᵀᴹ). Aventis Pasteur and Glaxo SmithKline (Philadelphia, Pennsylvania), producers of Tripedia⁴ and Infanrixᵀᴹ, respectively, are the remaining suppliers of DTaP. On March 7, 2001, the Food and Drug Administration approved a newly formulated version of Tripedia in one-dose vials without preservative and with only a trace amount of thimerosal. Approval of this vaccine should improve the supply of DTaP.

DTaP vaccine is recommended as a five-dose series: three doses given to infants at ages 2, 4, and 6 months, followed by two booster doses at age 15-18 months and at age 4-6 years.² Some vaccine providers may have difficulties obtaining sufficient supplies of DTaP to vaccinate all children in their practices. If providers have insufficient quantities of DTaP, priorities should be given to vaccinating infants with the initial three DTaP doses and, if necessary, to defer the fourth DTaP dose. However, children should be vaccinated with all other recommended vaccines according to the Childhood Immunization Schedule.³⁴ When adequate DTaP supplies are available, providers should recall for vaccination all children who did not receive the fourth dose of DTaP. If supplies are sufficient, children aged 4-6 years should be vaccinated in accordance with existing ACIP recommendations to assure immunity to pertussis, diphtheria, and tetanus during the elementary school years. CDC is evaluating the situation, and more guidance will be provided should substantial supply problems occur.

REFERENCES

1. CDC. Shortage of tetanus and diphtheria toxoids. MMWR 2000;49:1029-30.
2. Advisory Committee on Immunization Practices. Pertussis vaccination: use of acellular pertussis vaccine among infants and young children—recommendations of the Advisory Committee on Immunization Practices. MMWR 1997;46(no. RR-7).
3. CDC. Recommended childhood immunization schedule—United States, 2001. MMWR 2001;50:7-10,19.
4. Use of trade names and commercial sources is for identification only and does not imply endorsement by CDC or the U.S. Department of Health and Human Services.
5. Children traveling to a country where the risk for diphtheria is high should be vaccinated according to the Childhood Immunization Schedule. Travelers may be at substantial risk for exposure to toxigenic strains of Corynebacterium diphtheriae, especially with pro-longed travel, extensive contact with children, or exposure to poor hygiene. High-risk countries include the following: Africa—Algeria, Egypt, and sub-Saharan Africa; America—Brazil, Dominican Republic, Ecuador, and Haiti; Asia/Oceania—Afghanistan, Bangladesh, Cambodia, China, India, Indonesia, Iran, Iraq, Laos, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Syria, Thailand, Turkey, Vietnam, and Yemen; and Europe—Albania and all countries of the former Soviet Union.

Lyme Disease—United States, 1999

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¹ table, 2 figures omitted

LYME DISEASE (LD) IS CAUSED BY THE tickborne spirochete Borrelia burgdorferi sensu lato and is the most common vectorborne disease in the United States. Surveillance for LD was initiated by CDC in 1982, and the Council of State and Territorial Epidemiologists designated it a nationally notifiable disease in January 1991. This report summarizes the number of LD cases reported to CDC during 1999. Although the number of cases decreased from 1998, the number of cases in 1999 was higher than the number reported during the early 1990s. LD can be prevented by avoiding tick-infested habitats, by using personal protective measures, by vaccination, by checking for and removing ticks attached to the body and clothes, and by reducing tick populations.
For surveillance purposes, LD is defined as the presence of an erythema migrans rash ≥5 cm (≥2 inches) in diameter or at least one late manifestation of musculoskeletal, neurologic, or cardiovascular disease with laboratory confirmation of *B. burgdorferi* infection. Incidence rates for states and the District of Columbia (DC) were calculated using U.S. Census Bureau 1999 population estimates; county rates were based on 1995 population estimates.

During 1990-1996, the number of reported LD cases was 7943, 9470, 9908, 8257, 13,043, 11,700, and 16,455, respectively. In 1999, 16,273 LD cases were reported (overall incidence: 6.0 per 100,000 population), a 3% decrease from 16,801 cases reported in 1998 and a 21% increase from 12,801 cases reported in 1997. Most cases were reported in northeastern, mid-Atlantic, and north central states. Nine states reported LD incidences higher than the national rate (i.e., Connecticut, 98.0; Rhode Island, 55.1; New York, 24.2; Pennsylvania, 23.2; Delaware, 22.2; New Jersey, 21.1; Maryland, 17.4; Massachusetts, 12.7; and Wisconsin, 9.3). These states accounted for 92.0% of the nationally reported cases. Alaska, Georgia, Hawaii, Montana, and South Dakota reported no cases during 1999. From 1998 to 1999, 22 states had increases in the number of cases, 24 states and DC had decreases, and four states had no change.

County of residence was available for 16,214 (99.6%) LD patients. Among the 3143 U.S. counties, 713 (22.7%) had at least one case during 1999; 90% of the cases were from 109 (15.3%) reporting counties. Incidence exceeded 100 cases per 100,000 population in 24 counties in Connecticut, Maryland, Massachusetts, Minnesota, New Jersey, New York, Pennsylvania, Rhode Island, and Wisconsin; the highest county-specific incidence (950.7) occurred in Nantucket County, Massachusetts.

Among the 16,145 (99.2%) patients for whom age was reported, 4061 (25.0%) were aged <15 years; 2005 (12.3%) were 15-29 years, 3528 (21.7%) were 30-44 years, 3694 (22.7%) were 45-59 years, 2051 (12.6%) were 60-74 years, and 806 (5.0%) were ≥75 years. Among the 16,226 patients for whom sex was reported, 8511 (52.5%) were male. Of patients <15 years, 2338 (57.8%) were male; of patients 15-29 years, 1139 (56.9%) were male; of patients ≥75 years, 360 (44.6%) were male. Among 12,479 (76.7%) patients for whom month of illness onset was reported, 7161 (57.4%) had illness onset during June (28.5%) and July (28.9%); <5.8% reported illness onset during January, February, and December 1999.

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**CDC Editorial Note:** From 1991 to 1999, the incidence of LD increased 1.7-fold. The geographic distribution expanded early in the epidemic, then stabilized. Most cases continue to occur in northeastern, mid-Atlantic, and north central states. The large proportion of patients aged <15 years and 45-59 years may be the result of greater exposure than other groups to infected ticks, to less use of personal protective measures, to differential use of health-care services, or to reporting bias. The large number of reported LD cases during June and July reflects the seasonal peak of host-seeking activities of infective nymphal-stage vector ticks in areas where LD is endemic.

The findings in this report are subject to at least three limitations. First, distribution of reported cases could be distorted by reporting bias. Second, LD is underreported in areas where it is endemic and may be overreported where it is not endemic. Third, the LD case definition is limited in sensitivity and specificity, not all LD cases present with typical manifestations and other conditions may be confused with LD, and laboratory testing may be inaccurate.

LD can be prevented by avoiding tick-infested areas, using repellents, and promptly removing ticks that become attached to clothing or the body. A vaccine for persons aged 15-70 years, approved by the Food and Drug Administration in 1998, is 76% effective in preventing LD after three doses. New methods of reducing tick vectors are being developed (e.g., baited devices that passively apply acaricides to deer and rodents) (**); CDC, unpublished data, 2001). In addition, early diagnosis and treatment of LD can reduce morbidity. Updated guidelines for LD treatment were published in 2000.6,7

CDC supports collaborative efforts with health departments and academic and nonprofit organizations to prevent LD. During 2001, community-based projects are being initiated with the goal of reducing incidence to 9.7 per 100,000 population by 2010 in states where LD is endemic.8 Additional information about LD is available at http://www.cdc.gov/ncidod/dvbid/lymeinfo.htm.

**REFERENCES**

8 available

## Introduction to Public Health Surveillance Course

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CDC and Emory University’s Rollins School of Public Health will co-sponsor a course, “Introduction to Public Health Surveillance” during June 18-22, 2001, in Atlanta, Georgia. The course is designed for state and local public health professionals.

The course will provide practicing public health professionals with the theoretical and practical tools necessary to design, implement, and evaluate effective surveillance programs. Topics include overview and history of surveillance systems; planning considerations; sources and collection of data; analysis, interpretation, and communication of data; surveillance systems technology; ethics and legalities; state and local concerns; and future considerations. There is a tuition charge.

Deadline for application is May 4. Additional information and applications are available from Emory University, International Health Dept. (PIA), 1518
CDC’s 2001 CANCER CONFERENCE WILL be held September 4-7, 2001, in Atlanta, Georgia. The theme is “Using Science to Build Comprehensive Cancer Programs: A 2001 Odyssey.” Co-sponsors are the American Cancer Society National Home Office, the Association of State and Territorial Chronic Disease Program Directors, and the National Cancer Institute. The conference will explore evidence-based science and how it applies in a public health setting. Short courses will be held September 4 as part of the preconference activities. The conference will assist participants in the following: (1) applying current scientific thinking to cancer prevention, early detection, diagnosis and treatment, and rehabilitation and palliation for breast, cervical, colorectal, lung, oral, ovarian, prostate, and skin cancers, and tobacco control; (2) increasing research and evaluation in communities and among populations to broaden the use of science as the basis for decision-making, policy development, program management, and implementation; (3) enhancing surveillance systems, with new and existing data, to develop cancer prevention and control program activities; (4) incorporating evidence-based approaches to improve the delivery of public health interventions for all populations in the United States; (5) using advances in medicine, communications, education, and technology to improve cancer prevention and early detection efforts; and (6) developing and applying strategies for an integrated and coordinated approach to reduce morbidity and mortality from cancer.

Continuing education credit will be offered for physicians, registered nurses, health educators, and cancer registrars based on 19.5 hours of instruction. New this year is a Cyber Expo for showcasing innovative public health Internet sites and CD-ROM-based products. Registration information is available at http://www.cdc.gov/cancer/conference2001; deadline for registration is June 27, 2001.

Publication of Report on Indicators for Chronic Disease Surveillance

In 1999, THE COUNCIL OF STATE AND TERRITORIAL EPIDEMIOLOGISTS (CSTE) released its first report on “Indicators for Chronic Disease Surveillance: Consensus of the Council of State and Territorial Epidemiologists (CSTE), Association of State and Territorial Chronic Disease Program Directors (ASTCDPD), and Centers for Disease Control and Prevention (CDC).” The document was the result of a consensus involving epidemiologists and program directors at the state and federal level. The 73 selected indicators serve as measures that states and territories can use to uniformly define, collect, and report chronic disease data.

CSTE has updated this volume with a few minor changes, and it is available in an electronic format for downloading at http://www.cste.org/resources.htm. Also available online on this site is the data volume that complements the case definitions, with data points for each state and each of the indicators.

CSTE intends to review and revise the indicators every several years and started the revision process at the 2000 National Conference on Chronic Disease Prevention. Other plans include developing a web-based system to view data by region, indicator, and prevention pathway.