

Medical News

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CDC Begins New Journal on Emerging Infectious Diseases

The CDC released the first two issues of its new journal, *Emerging Infectious Diseases*, edited by Joseph E. McDade, PhD, of the CDC's National Center for Infectious Disease. The journal provides information on emerging infections in three sections: "Perspectives," a section that addresses factors underlying disease emergence; "Synopses," summaries of specific diseases or syndromes and related infectious disease issues; and "Dispatches," brief laboratory or epidemiologic reports with an international scope.

The journal is published quarterly and may be accessed electronically through the Internet (file transfer protocol, electronic mail, or World-Wide Web). For information on how to receive the journal electronically, send e-mail to eidhelp@cidod1.em.cdc.gov. To request a hard copy, call (404) 330-1236 and leave a fax number to receive the executive summary or leave name and address to receive a copy.

Increased Prescribing of More-Expensive Broad-Spectrum Antimicrobials by Office-Based Physicians

The CDC recently reported the results of a study that assessed the oral antimicrobial drug prescribing patterns of office-based physicians in the United States from 1980 through 1992. An increase in the annual drug prescription rate per 1,000 population was found for the more-expensive broad-spectrum antimicrobial drugs, such as the cephalosporins. A decrease in rates was observed for less-expensive antimicrobial drugs with a narrower spectrum, such as the penicillins. No trend was found for trimethoprim-sulfamethoxazole, the erythromycins, or the tetracyclines.

The authors note that the increased use of broader-spectrum and more-expensive antimicrobial drugs has implications for all patients because of the impact on healthcare costs and the potential for the emergence of antimicrobial resistance. This study supports the need to strengthen national surveillance of antimicrobial resistance, to develop a system of surveillance of antimicrobial use in the United States, and to develop and implement effective professional and public education strategies to improve antimicrobial use. These steps would minimize the risk for emergence of drug resistance and would help to control healthcare costs.

FROM: McCaig LE, Hughes JM. Trends in antimicrobial drug prescribing among office-based physicians in the United States. *JAMA* 1995;273:214-219.

Free Telephone Information About HIV Treatment

The HIV/AIDS Treatment Information Service provides timely, accurate treatment information on HIV/AIDS for patients, their family, friends, and healthcare workers. This service was developed through a coordinated Public Health Service effort and is offered through the CDC National AIDS Clearinghouse. The service is staffed by information specialists who answer questions using the National Library of Medicine database of HIV/AIDS treatment information. This database also is available to the public by computer link free of charge. Services include answers to questions about treatment, copies of federally approved treatment guidelines, and bilingual reference specialists. Call (800) HIV-0440, Monday through Friday, 9:00 AM to 7:00 PM, EST or write to PO Box 6303, Rockville, MD 20849-6303; fax (301) 738-6616.

Autologous Blood Transfusions Not Cost-Effective

In response to concerns of HIV transmission from blood transfusions, there has been an increasing demand by patients and physicians for autologous blood donations before elective surgery. Dr. Jeff Etchason of the West Los Angeles Veterans Affairs Medical Center and colleagues from the University of California, Los Angeles (UCLA) School of Medicine, recently evaluated the cost-effectiveness of donating autologous blood for four surgical procedures using a decision-analysis model. Cost-effectiveness was expressed as dollars per quality-adjusted year of life saved. The researchers found that substituting autologous blood for allogeneic blood resulted in little expected health benefit at a significantly higher cost, ranging from \$68 to \$4,783 per unit. The additional cost primarily was due to the discarding of units that were donated but not transfused and to the more labor-intensive donation process. The incremental cost effectiveness varied from \$235,000 to more than \$23 million per quality-adjusted year of life saved.

Because of the frequency of positive test results such as HIV and HBV in autologous units, concerns have been raised regarding the safety of transfusing unused autologous blood into patients other than the donor. Because of the frequency of positive test results, 85% of blood centers in the United States destroy unused autologous units.

Given the increased safety of allogeneic transfusions due to stringent donor screening and sensitive serologic tests for HIV and hepatitis C virus, the researchers concluded that the increased protection from donating autologous blood is limited and may not justify the increased expense.

FROM: Etchason J, Petz L, Keeler E, et al. The

cost-effectiveness of preoperative autologous blood donations. *N Engl J Med* 1995;332(11):719-722.

Pertussis Found to Be a Common Cause of Persistent Cough in Adults

There still is a common perception that pertussis is a disease primarily of children. Increasing evidence indicates that adults play a predominant role in the transmission of pertussis and may be the main reservoir of the disease. Dr. Seth Wright and colleagues from Vanderbilt University Medical Center in Nashville, Tennessee, recently studied the prevalence of pertussis in 75 adult patients presenting to the hospital emergency department with a chief complaint of cough of at least 14 days' duration. The mean age of the patients was 32 years, and the average duration of cough was 26 days (range, 14 to 90 days). All but one had been vaccinated against pertussis as a child. One had childhood pertussis, and none were known to have had pertussis as an adult.

Acute and convalescent antibody levels against pertussis toxin and filamentous hemagglutinin were determined by ELISA. Sixteen of the 75 patients had serologic evidence of pertussis, including 13 who had elevated levels on presentation. Cultures were negative in all 75 patients.

Clinical symptoms (paroxysmal cough, posttussive emesis, and fever) and lymphocyte count did not differentiate patients with pertussis from those without the disease.

The results of this study confirm that pertussis infection may be common among adults with persistent cough and that clinical signs and symptoms, pertussis culture, DFA testing, and lymphocytosis are of limited value in making the diagnosis. The authors suggest that vaccination of adults with the newly developed and less reactive acellular vaccines may be indicated if other studies confirm the high incidence of pertussis in adults.

FROM: Wright SW, Edwards KM, Decker MD, Zeldin MH. Pertussis infection in adults with persistent cough. *JAMA* 1995;273:1044-1046.

Zaire's Ebola Outbreak Coming Under Control

With the slowing of new cases of Ebola viral hemorrhagic fever (VHF), health officials from the World Health Organization recently announced that the epidemic was coming under control. More than 160 suspected or confirmed cases have been identified, of which 121 have been fatal. Cases have included hospital workers that cared for infected patients. The majority of cases were from Kikwit, Zaire, a city of approximately 600,000, located 240 miles east of Kinshasa, the capital of Zaire. Thus far, no cases have been reported from Kinshasa. It is believed that the index case for this outbreak was a forest worker infected in December 1994. Members of the international team have expressed hope that clues from the index case may reveal the currently unknown reservoir for this virus.

Transmission of the virus to secondary cases occurs through close personal contact with infectious blood or other body fluids or tissue. In previous outbreaks, secondary cases occurred among persons who provided medical care for patients and among patients exposed to reused needles. Although aerosol spread has not been documented among humans, this mode of transmission has been demonstrated among nonhuman primates. Because of the high fatality rate and lack of specific treatment or a vaccine, work with this virus in the laboratory setting requires biosafety level 4 containment.

The incubation period is from 2 to 21 days. Initial clinical manifestations of Ebola hemorrhagic fever include fever, headache, chills, and myalgia; subsequent manifestations include severe abdominal pain, vomiting, and diarrhea. Hemorrhagic manifestations with presumptive disseminated intravascular coagulation usually occur in fatal cases. In reported outbreaks, 50% to 90% of the cases have been fatal.

The Ebola virus takes its name from the Ebola River area in northern Zaire, where the first documented outbreak of this disease occurred in 1976. Ebola virus and Marburg virus are the two known members of the filovirus family. Ebola viruses first were isolated from humans during concurrent outbreaks of VHF in northern Zaire and southern Sudan in 1976. An earlier outbreak of VHF caused by Marburg virus occurred in Marburg, Germany, in 1967, when laboratory workers were exposed to infected tissue from monkeys imported from Uganda. Two subtypes of Ebola virus, Ebola Sudan and Ebola-Zaire, previously have been associated with disease in humans. In 1989, an outbreak among monkeys imported into the United States from the Philippines was caused by another Ebola virus, which infected humans but was not associated with clinical disease. This 1989 US outbreak is the subject of a popular new book, *The Hot Zone*, by Richard Preston (Random House).

CDC has established a hotline for public inquiries about Ebola virus infection and prevention, (800) 900-0681. CDC and the state department have issued travel advisories for persons considering travel to Zaire. Information about travel advisories to Zaire and for air passengers returning from Zaire may be obtained from the CDC International Travelers' Hotline, (404) 332-4559.

FROM: CDC. Outbreak of Ebola viral hemorrhagic fever-Zaire, 1995. *MMWR* 1995;44(19):381-382.

Altman L. UN agency says worst may be over in Zaire's Ebola epidemic. *New York Times* May 27, 1995, p A6.

Additional news items in this issue: Hospital Epidemiology Training Course, page 380; Blood Culture Results Found to Have Limited Effect on Antibiotic Choice by House Staff, page 381; OSHA's TB Standard to Be Peer Reviewed, page 384; FLASH! Late-Breaking News, page 384; OSHA Updates Guidelines on Hazardous Drug Exposures, page 390; Risk of HIV Transmission from Healthcare Worker to Patient Is Very Small page, 404; CDC Reports a Decline in TB Cases for Second Year in a Row, page 411; CDC Offers 24-Hour Fax-Back of HIV Documents, page 4 16; Nursing Home Fined \$75,000 for Isolating Patient for 9 Months, page 418.
