Medical News

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Serratia marcescens-Contaminated Chlorhexidine

An investigation was conducted by researchers at the Royal Victoria Hospital and McGill University in Montreal, Quebec, Canada, and the University of Iowa College of Medicine to determine the source of an increase in the incidence of *Serratia marcescens* isolates, from a baseline in March 1992 of 2.7 per 1,000 admissions to 8.6 isolates per 1,000 admissions in November 1992.

One hundred fifty-one patients located in many different areas of the hospital acquired infection (101) or colonization (50). The steep increase in isolates was related temporally to the introduction of a new chlorhexidine handwashing preparation, which did not contain isopropyl alcohol and which was distributed widely throughout the hospital.

S marcescens was isolated from the chlorhexidine solution. Pulse-field gel electrophoresis performed on 25 patient isolates and 10 chlorhexidine isolates demonstrated a common DNA profile in 18 of 25 patient isolates and 7 of 10 chlorhexidine isolates.

After recall of the solution, the incidence of *S marcescens* isolated from clinical specimens returned to the baseline rate.

FROM: Vigeant P, Hollis R, Pfaller M, et al. An outbreak of *Serratia marcescens* associated with contaminated chlorhexidine. Presented at the 35th Interscience Conference on Antimicrobial Agents and Chemotherapy, San Francisco, CA, September 17-20, 1995. Abstract J56.

First Human Rabies Case in 1995

The CDC recently reported the first case of rabies documented in a human in 1995 in the United States—a four-year-old girl from Lewis County, Washington, died from rabies after exposure to a bat. Since the 1950s, bats increasingly have been implicated as wildlife reservoirs for variants of rabies virus transmitted to humans; bat-associated virus has been identified in 12 of the 15 cases of human rabies diagnosed in the United States since 1980. However, a history of animal-bite exposure was documented for only six of the 25 cases.

This patient presented to a local hospital with a 2-day history of drowsiness, listlessness, abdominal pain, anorexia, sore throat, neck pain, drooling, and nasal congestion. Rhinitis and bilateral conjunctivitis were diagnosed, and antibiotic and symptomatic treatment were prescribed. The following day, she was readmitted with seizures and respiratory distress; she deteriorated rapidly and died within a week. A nuchal skin biopsy taken prior to her death was positive for rabies by direct fluorescent antibody (DFA), and an autopsy specimen of the brain tissue also was positive by DFA.

During the child's hospitalization, the family reported that 2 weeks prior to admission a bat was found in the child's bedroom, but the child had no evidence of a bite. The bat was destroyed and buried. The bat was exhumed and its brain was positive for rabies by DFA. Rabies prophylaxis was administered to 72 contacts, including healthcare workers, family, and daycare-center contacts.

This case highlights the inability of healthcare providers to elicit information from patients about potential exposures to bats, which may reflect circumstances that hinder recall or the limited injury inflicted by a bat bite. The case also underscores that, in situations in which a bat is physically present and the person cannot exclude the possibility of a bite, postexposure treatment should be considered unless prompt testing of the bat has ruled out rabies infection.

FROM: Centers for Disease Control and Prevention. Human rabies—Washington, 1995. *MMWR* 1995;44(34):625-627.

Isoniazid Preventive Therapy Revisited

Previous decision analyses of isoniazid preventive therapy for low-risk tuberculin reactors aged 20 to 34 years have not accounted for the recently increased isoniazid (INH) resistance rate. Further, drug resistance trends also could affect the decision to use INH preventive therapy for patients with recent conversion of tuberculin skin test (TST) who are seronegative for HIV.

Researchers from Keesler Medical Center, New York City Department of Health, and the CDC performed a decision analysis to assess the difference in life expectancy between those who receive INH preventive therapy and those who do not. From the decision analysis and a review of the literature, the authors concluded that, for tuberculin reactors aged 20 to 34 years who are seronegative for HIV and living in areas with high INH resistance, there is minimal net benefit of INH preventive therapy (a net 2-day increase in survival). The authors suggest that the current recommendations from the CDC and the American Thoracic Society to provide INH preventive therapy to this patient population should be reexamined.

For patients in areas of high INH resistance, but without a known source, whose results of TST tests have converted recently, the appropriate regimen is not known. The authors believe that the small increase in survival suggests

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withholding INH preventive therapy from HIV-seronegative recent converters at highest risk for INH-induced hepatitis and death, such as black and Hispanic women over age 35 years and patients with underlying liver disease. The improved live expectancy, as well as societal benefits of INH preventive therapy, argue for the continued use of INH preventive therapy among all other recent TST converters.

FROM: Sterling TR, Brehm WT, Frieden TR. Isoniazid preventive therapy in areas of high isoniazid resistance. *Arch Intern Med* 1995;155:1622-1628.

Survey Shows Satisfaction With Most JCAHO Services

A national opinion survey conducted for the American Hospital Association (AHA) suggests that hospitals are seeing improved performance by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). The poll, conducted by the National Research Corporation of Lincoln, Nebraska, was mailed to 666 hospitals that had been evaluated by the JCAHO from January to May 1995; 49% responded. The survey sought to identify why hospitals seek accreditation by the JCAHO, to assess hospitals' level of support for the accreditation process, and to learn which areas of that process are seen as needing improvement the most.

Using a descending four-point scale to express agreement and disagreement concerning factors related to the accreditor's performance, the respondents gave an overall 3.32 rating to the on-site survey process, a 3.03 rating to accreditation reports, and a 3.02 rating to the presurvey process. Hospital chief executive officers (CEOs) gave a 3.36 rating for their understanding of the impact of the standards on their overall survey score; correlation of the final report with the last-day briefing received a 3.13 rating. Fifty-nine percent of respondents said hospitals should seek accreditation to validate and measure quality and public safety, and another 25% said they seek accreditation to improve quality.

On-site survey teams received generally good marks, with a 3.55 rating for how well they organized the surveys. With respect to the overall value of the commission survey, accomplishing the hospital's goal through the survey received a 3.58 rating, and the relevance of standards to providing quality care received a 3.07 rating.

On a five-point scale, organizational image (4.61) was the leading reason the CEOs cited for seeking accreditation, followed by Medicare certification (4.54), and requirements by third-party payers (4.54).

AHA President Dick Davidson said, "We want to get an objective look at the hospital CEO's opinions about the JCAHO and provide information that the JCAHO could use to improve its efforts. This survey will provide a baseline from which to measure future improvements."

Earlier this year, after several hospitals and state hospital associations complained about the JCAHO's survey process and performance, the organization implemented an action plan for improvement. JCAHO President Dennis O'Leary said that he was pleased that the plan and the commission's Agenda for Change are beginning to show positive results.

FROM: Greene J. JCAHO customers satisfied: poll. *AHA News* September 25, 1995.

Promoting Adherence to Practice Guidelines

Researchers from Beth Israel Hospital and Harvard Medical School, Boston, Massachusetts, conducted a randomized, controlled, prospective trial of electronic messages designed to enhance adherence to clinical practice guidelines. The study included 126 physicians and nurse practitioners who used electronic medical records when caring for 349 patients with HIV infection in a primary-care practice. Analyses were performed of the response times of clinicians to the situations that triggered alerts and reminders, the number of ambulatory visits, and hospitalizations.

The results indicted that presentation of a set of alerts and reminders as part of computer-based patient record resulted in significantly faster and more complete adoption of practice guidelines by a group of clinicians treating patients with HIV infection. Clinicians acted on alerting conditions (for example, to obtain CD4 counts or to begin prophylactic therapy) in a median time of 11 days if an alert was presented, as compared to 52 days if it was not. In addition, at 1 month after an alert was generated, 29% more of the patients in the intervention group had received appropriate care; at 3 months, the figure was 21%. Clinicians acted on the suggestions of a reminder in a median time of 114 days, as compared with over 500 days if a reminder was not presented.

FROM: Safran C, Rind DM, Davis RB, et al. Guidelines for management of HIV infection with computer-based patient's record. *Lancet* 1995;346:341-346.

NFID Names CDC's Martone as Executive Director

The National Foundation for Infectious Diseases (NFID) has announced the appointment of William J. Martone, MD, as its new senior executive director. Dr. Martone will be the chief medical officer of the NFID and will have responsibility for the overall direction of the NFID under the guidance of its executive committee. He was detailed to the NFID from the CDC's National Center for Infections Diseases, Hospital Infections Program, for which he serves as director.

A 19-year veteran of the US Public Health Service, Dr. Martone is Clinical Assistant Professor of Medicine at the Emory University School of Medicine and Attending Physician at the Atlanta Veterans Affairs Hospital.

Dr. Martone's appointment completes a transition period that followed the resignation last January of Richard J. Duma, MD, PhD. Commenting on the appointment, Dr. Leon G. Smith, NFID President, stated, "Dr. Martone is in a unique position to serve NFID and CDC in their efforts to control and prevent new and reemerging infectious dis-

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