Medical News

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VRE Bacteremia

Enterococci are the third eading cause of nosocomial bloodstream infections (NBSI), and the rate of vancomycin resistance is increasing rapidly. Dr. Michael Edmond and colleagues from the University of Iowa's Surveillance and Control of Pathogens of Epidemiologic Importance (SCOPE) Project analyzed 23 months of surveillance data submitted from 49 consortium hospitals participating in SCOPE. They identified 419 cases of NBSI; of these, vancomycin susceptibility was reported for 364 (87%). Overall, 17% of the organisms were vancomycin resistant. *Enterococcus faecalis* accounted for 60% of the enterococcal isolates and *Enterococcus faecium* represented 20%, but vancomycin resistance was 10 times more common among *E faecium* (47% vs 5%). Vancomycin resistance was significantly more common in larger hospitals (<400 beds, 3%; 400-699 beds, 12%; >700 beds, 25%) and varied significantly by geographic region (Northeast, 28%; Southwest, 16%; Northwest, 5%; Southeast, 4%). Comparing patients with vancomycin-resistant enterococci (VRE) and vancomycin-susceptible NBSI, there were no significant differences in age, gender, the presence of an intravascular catheter, urinary catheter, or ventilatory support. VRE bacteremia was not more likely to occur in critical-care units when compared to wards. Patients with VRE were significantly more likely to be receiving hemodialysis or peritoneal dialysis. Multivariate analysis revealed that peritoneal dialysis and hemodialysis were independent risk factors for the development of VRE bacteremia, possibly reflecting the higher utilization of vancomycin in these patients.

FROM: Edmond MB, Wallace SE, Pfaller MA, Jones RN, Wenzel RP. Surveillance at 49 US medical centers for VRE bacteremia. Presented at the 34th Annual Meeting of the Infectious Disease Society of America; September 18-20, 1996; New Orleans, LA. Abstract 49.

HCV Exposure Prevalence

Researchers from San Francisco General Hospital evaluated the prevalence of bloodborne pathogens among source patients whose blood was involved in an occupational exposure reported to their Needlestick Hotline. All source patients were evaluated by chart review, interview, and testing for HIV (ELISA/IFA), hepatitis B virus (HBV) (hepatitis B surface antigen [HBsAg]/hepatitis B e antigen [HBeAg]), and hepatitis C virus (HCV) (ELISA/RIBA). In 1995, 128 source patients were implicated in the 137 reported exposures (7 were unknown, and 2 were involved in two separate exposures). Ninety-three (73%) of the 128 known source patients were available for testing; the others were discharged before evaluation, refused blood draws, or the blood sample was insufficient for testing.

The HCV status was known for 88 of 93 available source patients; 30 of 88 (34.1%) were infected with HCV. Two were known before the exposure; the other 28 were diagnosed as a consequence of the source patient testing. Two (2.3%) of the 88 available for testing were positive for HBsAg. HIV status was determined for 85 of 93 available source patients; 19 (22.4%) were infected. All 19 infections were diagnosed before the exposure; none of the 66 tested source patients whose HIV status at the time of the exposure was not known tested positive for HIV.

The researchers concluded that HCV and HIV are both highly prevalent among source patients at San Francisco General Hospital. HCV is unlikely to be diagnosed before exposure. HIV among untested source patients is rare. The researchers recommend that hospitals like San Francisco General should evaluate source patients and exposed workers for HCV.

FROM: Evans SE, Fahrner R, Gerberding JL. HIV, HBV, and HCV prevalence among source patients reported to the San Francisco General Hospital Hotline. Presented at the 34th Annual Meeting of the Infectious Disease Society of America; September 18-20, 1996; New Orleans, LA. Abstract 24.

Malaria Transmission Aboard Airline

Brazilian health authorities are tracing the passengers of a flight from Beirut to São Paulo after three passengers developed malaria. A director of the airline said this was the first report of malarial infection on this route, which has been running for 8 months.

According to a federal agency in charge of control of endemic disease, two passengers and one crew member were infected during a mid-flight stop in the Ivory Coast. During the 2-hour stop, the doors of the aircraft were left open, presumably letting in an infected mosquito. The three passengers were diagnosed with *Plasmodium falciparum* malaria approximately 2 weeks after the flight and were treated at hospitals in São Paulo. Government officials issued a public call for all passengers on the route, informing them of the risks of exposures. Twenty of the 360 passengers that were available for testing were found to be negative.

This outbreak emphasizes the need for airlines to be vigilant when landing in malarial areas.

FROM: Csillag C. Science and medicine: mosquitoes stow away on aircraft. *Lancet* 1996;348:880.

FDA Approves Test for TB

Traditional methods for laboratory diagnosis of tuberculosis (TB) may require weeks, and delay can impede treatment and control efforts. Nucleic acid amplification (NAA) tests, such as polymerase chain reaction (PCR) and other methods for amplifying DNA and ribonucleic acid (RNA), may facilitate rapid detection of microorganisms. An NAA test for *Mycobacterium tuberculosis* complex (Amplified *Mycobacterium tuberculosis* Direct Test or MTD [Gen-Probe, San Diego, CA]) recently was approved by the FDA for use on processed clinical specimens, and several other NAA tests are currently under commercial develop-

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