Medical News

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EPA Issues Stop-Sale Orders on Four Medical Solutions

The U.S. Environmental Protection Agency (EPA) ordered a stop to the sale of four medical solutions used to sterilize medical equipment. This stop order, effective December 3, 1993, includes the following products manufactured by Metrex Research Corporation of Parker, Colorado: Metricide Activated Dialdehyde Solution, Metricide Plus 14, Metricide Plus 28, and Metricide Plus 30. The stop-sale order is based on laboratory testing and other information that shows that these products failed efficacy tests for sterilants when used according to label directions (10-hour immersion at 20°C). All four Metricide products have glutaraldehyde as the active ingredient and compose a substantial part of the sterilant market.

The EPA also announced that it is negotiating with the registrants of four other sterilants that failed efficacy tests seeking voluntary agreements for limiting the marketing of their products. The products are ABQ and Exspor (Alcide Corp, Norwalk, CT), Clidox-S (Pharmacal Research Laboratories, Naugatuck, CT), and Cetylcide-G (Cetylite Industries, Pennsauken, NJ). Alcide and Cetylite voluntarily agreed to recall the affected batches of Exspor and Cetylcide from all dental and medical channels of trade. ABQ and Clidox-S are marketed primarily for disinfecting and cleaning surfaces in veterinary and laboratory animal research settings and their continued use would not directly affect human or animal health. EPA has offered to allow these four sterilants to remain temporarily on the market for limited use in veterinary and animal research laboratories as disinfectants under an amended registration pending retesting.

These actions are part of the EPA's continued testing program for sterilants and disinfectants that began in 1991. The EPA plans to complete its review of the testing of all sterilants within the next six months.

Contaminated Syringes Reused During Employee Vaccination Programs

The CDC recently reported incidents of improper infection control practices in two U.S. cities during vaccination of employees at worksite vaccination programs. The first case involved a physician who was hired to administer influenza vaccine to employees and who subsequently reused needles to vaccinate other employees. The procedure used by the physician involved aspiration of several doses of vaccine from a multidose vial into a syringe, inoculating an employee, and then, after wiping the needle with an alcohol swab, using the same needle and syringe subsequently to inoculate another employee.

The second case also involved a physician who had been hired to administer influenza and pneumococcal vaccine to employees. He was observed puncturing multidose vials of vaccine with needles that had been used previously to inoculate patients. The physician first aspirated a dose of influenza vaccine into a syringe and inoculated an employee; then, using the same syringe and needle, aspirated pneumococcal vaccine from a multidose vial of that vaccine and inoculated the same person. Although a new syringe and needle were used for each employee, the physician repeatedly punctured the multidose vials of pneumococcal vaccine with used needles.

Employees at both worksites have been counseled and offered serotesting for bloodborne pathogens and medical follow-up.

Infections have been transmitted to patients by contaminated multidose vials and reuse of syringes, including hepatitis B virus infection. Nosocomial patient-to-patient transmission of HIV has occurred when needles and syringes were reused without being sterilized properly or were reused inadvertently between patients.

These two cases represent major breaches in basic infection control practices for administering injections that are taught to physicians, nurses, and other healthcare workers during their training. In their report of these cases, the CDC urged strict adherence to long-standing precautions for administering parenteral substances. These include: 1) considering previously used syringes as contaminated and not reusing them to aspirate medication from a multidose vial that will be used on another patient; 2) using only sterile needles and syringes to administer parenteral substances; 3) discarding after use all needles and syringes that have been manufactured for

single use; and 4) using heat-based sterilization methods (eg, steam autoclave or dry-air oven) not liquid chemical germicides, to reprocess reusable needles and syringes.

FROM: Centers for Disease Control and Prevention. Improper infection control practices during employee vaccination programs-District of Columbia and Pennsylvania, 1993. *MMWR* 1993;42:969-971.

First Reported Case of Patient-to-Patient Transmission of HIV in a Healthcare Setting

In the December 18, 1993, issue of *Lancet,* Dr. Kerry Chant et al reported the results of an investigation in Australia that indicated apparent transmission of HIV from one patient to four other patients in a surgeon's office. Four female patients with risk factors for HIV underwent minor surgical procedures (eg, removal of skin lesions) on the same day in 1989. A male patient with known risk factors for HIV, who has died of AIDS since, also had surgery on the same day and is presumed to have been the source of infection to the other four patients. The surgeon, who has tested negative for HIV infection, performed these procedures without assistance.

Australian health officials believe that a breach in infection control precautions caused HIV to be transmitted from one patient to subsequent patients. Examples of such breaches in infection control include inadequate disinfection and sterilization of reusable instruments, reuse of needles or syringes designed for single use only, or improper technique for drawing blood and infection of medications. Although the precise event(s) that led to patient-to-patient transmission have not been identified to date, Australian health officials have said that an investigation has found that the doctor did not sterilize all his equipment. The investigation is continuing, and DNA viral sequencing studies are being performed.

Surgeons Still Deficient in Hepatitis B Vaccination

According to an abstract submitted to the First National Conference on Human Retroviruses and Related Infections, held December 12-16, 1993, in Washington, DC, the CDC conducted a seroprevalence survey of HIV HBV, and HCV infection among hospital-based surgeons in moderate to high HIV/AIDS incidence areas. The survey was voluntary and anonymous and included 770 (27%) of 2,887 eligible surgeons. The participants reported practicing a mean of 7.8 years since 1978 and, in the past year, performing a mean of 174 operating room procedures and sustaining a mean of three percutaneous injuries. One (0.14%) of 740 surgeons not reporting nonoccupational HIV risk factors was HIV seropositive. None of 20 surgeons reporting nonoccupational HIV risk factors were HIV positive. None of the participants not responding to the questions of nonoccupational risk factors was HIV positive.

One hundred twenty-nine surgeons had a pattern of HBV serologic markers indicating past HBV infection. Among participants, 418 (55%) reported receiving ⩾ 3 doses of hepatitis B vaccine; of these, 88% had detectable levels of antiHBs. However, 199 surgeons (26%) had not received hepatitis B vaccine, and of these, 105 (53%) were susceptible to HBV infection. Seven surgeons were positive for anti-HCV

These results do not indicate a high rate of previously undetected HIV infection among surgeons who practiced in moderate to high HIV/AIDS incidence areas. In addition, a substantial percentage of surgeons are susceptible to HBV infection and need to be vaccinated.

FROM: Panlilio A, et al. Serosurvey of HIV, HBV, and HCV among hospital-based surgeons. Abstracts of the First National Conference on Human Retroviruses and Related Infections. December 12-16, 1993; Washington, DC. Abstract 536.

Pediatric Emergency Departments -- Missed Opportunities for Measles Vaccination During Outbreaks

The CDC's Division of Immunization reported the performance of two inner-city hospital pediatric emergency department (ED) immunization programs that were implemented during a measles outbreak.[1] The two pediatric EDs were located in urban Chicago and served primarily an indigent minority population. As part of outbreak control, measles vaccine was provided free of charge to both hospital EDs by the local health department and specific procedures were developed for the vaccination programs, including a triage nurse to obtain a parental history of vaccination and a nurse specifically hired to administer vaccinations. The study, reported in a recent issue of the *Journal of the American Medical Association,* found that 59% of the vaccine-eligible patients seen in the EDs were not vaccinated.

Some of the factors that may have adversely affected the success of these vaccination programs included misperceptions by healthcare providers about valid contraindications to vaccination and less aggressive screening of older children for vaccination history