

Avoiding Hazards when Using Cleaners and Disinfectants on Electronic Medical Equipment (2/08)



Recently, the Food and Drug Administration (FDA), Centers for Disease Control and Prevention (CDC), Environmental Protection Agency (EPA), and Occupational Safety and Health Administration (OSHA) collaborated to provide information on avoiding hazards when cleaning and disinfecting electronic medical equipment. Contaminated surfaces can include:

- Surfaces and equipment with blood or other potentially infectious material
- Surfaces touched by gloved hands after glove contact with patients
- Surfaces touched by patients, and surfaces contacted by or in the vicinity of aerosols and spatter
- Surfaces about whose state of cleanliness the health-care professional is uncertain

Inappropriate use of liquids on electronic medical equipment can lead to problems such as equipment fires and other damage, equipment malfunctions, and health-care worker burns. Problems likely develop as a result of corrosion of electronic circuitry by disinfecting or cleaning solutions that penetrate the equipment housings. Health-care workers routinely spray equipment housings with disinfectants or wrap the housings with disinfectant-soaked towels. These practices are generally not consistent with the equipment manufacturers' directions for use, which typically recommend wiping the housing with a soft cloth dampened with a mild detergent and water.

Problems have been reported for infusion pumps, ventilators, patient-controlled analgesia pumps, sequential compression device pumps, telemetry physiological signal receivers and transmitters, infusion fluid warmers, and infant anti-abduction sensors. This notification, however, is not limited to these equipment types and may be relevant to any equipment that has unsealed electronic circuitry or components, such as computer workstations, handheld devices and other monitoring equipment.

To avoid these hazards, the relevant Federal agencies recommend the following in conjunction with your facility's equipment management policies:

- Identify the equipment for which this notification applies.
- Review the manufacturer's cleaning and maintenance instructions and ensure all staff are trained and will follow these instructions.
- Protect equipment from contamination whenever possible.
- If there is suspicion of equipment contamination with microorganisms that might pose a transmission risk in healthcare settings (e.g., those requiring contact precautions), clean equipment surfaces in accordance with instructions from both the equipment manufacturer and the chemical manufacturer. If disinfection is necessary, alternative strategies to avoid wetting should be explored in consultation with the equipment manufacturer.
- Always adhere strictly to all the chemical manufacturer's warnings, precautions and cautions, and carefully follow all directions for use.
- If equipment is contaminated with blood or other potentially infectious material (OPIM), the equipment must be decontaminated per OSHA regulations.

For details on the above recommendations and additional information please visit the FDA Web site: www.fda.gov/cdrh/safety/103107-cleaners.html.