HAZARD REPORT UPDATE

ECRI Institute Revises Its Recommendation for Temperature Limits on Blanket Warmers

SUMMARY

ECRI Institute now recommends that temperature settings on blanket warming cabinets be limited to 130°F (54°C). We had previously recommended a limit of 110°F (43°C) because solutions were often being warmed in the same cabinets as blankets, and the lower temperature eliminated the serious burn risk presented by excessively heated solutions. With increasing recognition in the healthcare community that solutions should be kept at lower temperatures than—and therefore heated separately from—blankets, we believe that our recommendation for blankets can be made less stringent. We continue to recommend that solution warming cabinets be limited to 110°F.

DISCUSSION

ECRI Institute based its original warming-cabinet temperature recommendation (published in the May 2005 issue of Health Devices) on investigations of incidents in which insensate patients were burned by blankets or—more commonly—by solutions heated to excessively high temperatures. During these investigations, as well as in discussions we had with member hospitals at the time, we became aware of the unfortunately common—and generally dangerous—practice of heating solutions and blankets together in the same warming cabinet. When blankets and solutions are heated to the same temperature, the solutions contain substantially more heat and, therefore, present a far greater burn risk. Believing that it would be difficult to enforce policies dictating that solutions be warmed in dedicated cabinets set at lower temperatures, we recommended setting all warming cabinets at 110°F, a temperature safe for both items.

Since making our original recommendation, we have continued to discuss the warming cabinet issue with dozens of member hospitals. While many quickly adopted the 110°F limit, an increasing number have asked us whether they can increase the limit for blankets alone, believing that warmer blankets can contribute to the comfort of sensate patients. During these frequent discussions, we have recognized a growing awareness within the healthcare community that heating solutions to the temperatures typically desired for blankets creates a serious burn risk and, therefore, that the two items should be warmed separately.

Based on this increased awareness—and to better accommodate patient comfort—we now recommend that temperature settings on blanket warming cabinets be limited to 130°F. We continue to recommend that cabinets used to heat solutions be limited to 110°F.

To accommodate these two limits, we now also recommend that facilities wishing to warm blankets above 110°F heat blankets and solutions in separate, dedicated warming cabinets (or, in...
the case of combination cabinets, in dedicated compartments with separate heating elements and controllers).

Facilities that wish to continue limiting all cabinets to 110°F (for instance, to completely ensure that solutions mistakenly placed in the wrong cabinet will not be heated excessively) may safely do so.

RECOMMENDATIONS

1. Alert personnel in the following areas to this issue and to our report: the emergency department, intensive care units, postanesthesia care units, obstetrics, and operating rooms. Also alert clinical engineering personnel, facilities engineering staff, and other concerned personnel.

2. Ensure that temperature settings for blanket warming cabinets and compartments are limited to 130°F and that solution warming cabinets and compartments are limited to 110°F. Make sure that these settings cannot be increased by unauthorized personnel (one way to accomplish this is to use cabinets that employ lock-out features).

3. If you choose to warm blankets above 110°F, dedicate specific cabinets—or individual compartments within combination cabinets—to warming either blankets or solutions, not both. Label each device to identify its intended contents and its maximum permissible temperature setting. When labeling blanket warming cabinets, consider language specifically forbidding solutions and identifying the burn hazard.

4. Assign the responsibility for setting—and periodically monitoring—the temperature of warming cabinets to designated staff members in each clinical area where the devices are used.

5. Ensure that warming cabinets are inspected annually to verify proper temperature settings and performance.

6. Ensure that warming cabinet capacity can meet the daily demand for warmed solutions and blankets. Consider purchasing additional units if necessary. In hospitals with too few cabinets (or too little cabinet space), staff may be tempted to pack items too closely, which can prevent even and effective heating.

7. Assess the location of warming cabinets in relation to the patient care area, and move cabinets closer, if necessary, to keep blankets from cooling excessively while being carried to patients.


Suppliers. These devices are available from a variety of suppliers. Consult ECRI Institute’s Health Devices International Sourcebase for a list of companies.