

Insulating Your Own Active Electrodes...Is this a Safe Practice?

"The safety and welfare of patients during surgical interventions are primary concerns of perioperative nurses."¹ These concerns arise from the surgical patients vulnerability as a result of anesthesia and the perioperative nurses awareness of the patients loss of control over his or her own environment. This vulnerable state places responsibility on the perioperative nurse for the patients well being and safety

Many times, however, perioperative nurses unknowingly put their patients at risk by utilizing certain products for other than their intended purpose. These efforts are usually in response to cost containment or to furnish a product that isn't commonly stocked in the department. An example: taking a section of red rubber catheter (Robinson catheter) or like material and placing it over the electrosurgical electrode or needle for insulation purposes. The objective is to prevent secondary burns from occurring in confined surgical spaces. Although these actions are well intended, they do pose a FIRE hazard and are not recommended!

Manufacturers guarantee their products, but the guarantee does not extend to products that have been altered. In the case of electrosurgical manufacturers, active electrodes are often packaged with a sheath covering the tip to protect the contents as well as prevent accidental puncture

of the sterile package. Insulating the active electrode with the packaging sheath is as much a FIRE hazard as insulating with a red rubber catheter and is not recommended! ECRI points out in the Hazard Report from Sept./Oct. 1998, that modifying electrodes may increase the healthcare provider's liability should a fire or other accident occur.

Rubber catheters and protective sheaths were not designed for the purpose of insulating active electrodes against temperatures of several hundred degrees.

The best fire deterrent is prevention! For surgical procedures that require an insulated electrode, use commercially available products and always follow the manufacturers written instructions for use.

Supporting documentation on this issue can be found in ECRI Health Devices Hazard Report, July 1996, Vol. 25, No. 7, pgs. 260-262 and September-October 1998, Vol. 27, Nos. 9-10, pgs. 367-370.

- 1 Meeker, M.H., and Rothrock, J.C., Alexander's Care of the Patient in Surgery, 10th Edition, 1995, pg. 19



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