

Available Safety Technologies

Laparoscopic and High-Current Electrosurgery

Electrosurgery, one of the most commonly used operating theatre technologies, can be one of the most dangerous to patients. Adverse events can include third-degree burns and perforations and even surgical fires. ECRI an independent, not for profit health services research agency, evaluates and provides ratings for four technologies designed to reduce the risk of injury during laparoscopic monopolar electrosurgery. The August 2005 issue of *Health Devices* also features a guidance article on new burn risks associated with high-current, long-duration electrosurgical activations.

Electrosurgery is used for cutting soft tissue, controlling bleeding, and performing tissue removal and destruction. ECRI's *Health Devices* evaluates four products—the Jac-Cell Medic Insulation and Continuity Tester, the Megadyne Reusable Indicator Shaft, and the Mobile Instrument InsulScan designed to aid clinicians in detecting damage to the device's insulation layer, and the Encision EM2+ Active Electrode Monitor designed to protect against leakage current burns. ECRI based its ratings on each technology's ability to reduce the risk of patient burns.

Also in the issue, ECRI advises hospitals on burn risks created by the high-current, long-duration activations required during use of newer electrosurgical device operations and techniques. These electrosurgical techniques apply higher current to the patient for longer periods of time compared to conventional electrosurgery. ECRI discusses the risks of return-site burns to patients and provides recommendations to reduce such risks when using those newer operations and techniques.

All issues of *Health Devices*, ECRI's flagship publication for healthcare technology decision makers, include a section derived from ECRI's International Problem Reporting System. Articles in this section cover medical device hazards investigated by ECRI and contain specific recommendations to help healthcare facilities minimise risks. This month's Problem Reporting section describes incidents related to the risks of high-current, long-duration activations. Another hazard report highlights severe injuries sustained by a newborn when a misconnected limb of a breathing circuit caused an infant ventilator to deliver instantaneous high pressure.

Health Devices is provided to members of ECRI's [Health Devices System](#), Health Devices Gold, and [SELECTplus™](#) programs. For nearly 35 years, *Health Devices* has featured comparative, supplier evaluations of medical devices and systems based on extensive laboratory testing and clinical studies. ECRI's evaluations focus on the safety, performance, efficacy, and human factors design of specific medical devices and technologies. Along with ECRI's test results and ratings, published evaluations include a technology overview, guidance on selecting appropriate devices and using them safely, and discussion of relevant topics, such as cost containment, equipment management, and adherence to standards. *Health Devices* also features in-depth guidance articles on healthcare technology

management topics.

For information on purchasing single or bulk copies of the June 2005 issue of *Health Devices*, or for more information about membership, contact ECRI by telephone at (+44) 01707 871511, ext. 462; by e-mail at info@ecri.org.uk or by fax at (+44) 01707 393138.