Sharps Injuries Increase In Surgical Settings After Passage Of National Needlestick Legislation

A recently-published study finds that many surgical teams and hospitals are not using devices and procedures proven to reduce the risk of accidental needle sticks in the OR.

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The operating room (OR) is a high-risk area for occupational sharps injuries and bloodborne pathogen exposure. In fact, over 384,000 healthcare workers in the U.S. suffer needlestick injuries each year, putting them at risk for hepatitis, HIV, and other serious diseases.1 The Needlestick Safety and Prevention Act was established in 2000 to help decrease these risks. However, a study recently published in the Journal of the American College of Surgeons found that the requirement to provide safety-engineered devices, mandated by the legislation, has received little attention in surgical settings.

In the study, researchers analyzed percutaneous injury surveillance data from 87 hospitals in the United States from 1993 through 2006 and compared injury rates in surgical and nonsurgical settings before and after passage of the law. The team identified devices and circumstances associated with injuries among surgical team members.

The researchers found that of 31,324 total sharps injuries, 7,186 were to surgical personnel. After the legislation, injury rates in nonsurgical settings dropped 31.6%, but increased 6.5% in surgical settings.

Most injuries were caused by:

- Suture needles (43.4 percent).
- Scalpel blades (17 percent).
- Syringes (12 percent).

Seventy-five percent of accidental sticks in the OR occur when medical devices are in use or are passed from one hospital worker to another. While surgeons and residents were most often the original users of the injury-causing devices, nurses and surgical technicians were typically injured by devices originally used by others.

The researchers conclude that despite legislation and advances in sharps safety technology, surgical injuries continued to increase during the period that nonsurgical injuries decreased significantly.

Hospitals need to comply with requirements for the adoption of safer surgical technologies, and promote policies and practices shown to substantially reduce blood exposures to surgeons, their coworkers, and patients. While decisions affecting the safety of the surgical team lie primarily in the surgeon's hands, there are also roles for administrators, educators and policy makers to ensure that safety and sharps injury prevention is maintained.

A portion of these data were presented at the Association of periOperative Registered Nurses Annual Congress, Chicago, IL, March 2009.

Researchers of the study included: Janine Jagger, MPH, PhD, Ramon Berguer, MD, FACS, Elayne Kornblatt Phillips, RN, MPH, PhD, Ginger Parker, MBA, Ahmed E. Gomaa, MD, ScD, MSPH

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