

'Sharps' injuries have major health and cost impact for surgeons

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Injuries caused by needles and other sharp instruments are a major occupational hazard for surgeons—with high costs related to the risk of contracting serious infectious diseases, according to a special article in the April issue of *Plastic and Reconstructive Surgery*, the official medical journal of the American Society of Plastic Surgeons (ASPS).

ASPS Member Surgeon Dr. Kevin C. Chung and colleagues at The University of Michigan Health System, Ann Arbor, review the risks, [health impact](#) and costs of "sharps" injuries for surgeons and other operating room personnel. They write, "Increased attention to the health, economic, personal and social implications of these injuries is essential for appropriate management and future prevention."

High Rate of Sharps Injuries in OR—Surgeons at Highest Risk Nearly 400,000 sharps injuries occur each year in the United States. About 25 percent of injured workers are surgeons—for whom the risk is highest in the operating room. "Despite healthcare policies designed to protect [healthcare workers](#), injuries remain common," Dr. Chung and colleagues write. Nearly all surgeons will sustain a sharps injury sometime during their career. Medical students and residents are also at high risk; fatigue and inexperience are important risk factors.

The main health concern of sharps injuries is the risk of acquiring a communicable disease from a patient. While HIV is the most-feared result, the risk of infection with [hepatitis B virus](#) is actually much higher. Sharps injuries can also have a major [psychological impact](#) on the

injured person and his or her family—particularly during the time needed to confirm that the injured worker is free of infection, which may take several weeks or months.

Once an injury occurs, there are standardized guidelines for post-exposure prevention, depending on whether the patient has any known transmissible infections. Recommendations include [antiviral medications](#) for healthcare workers exposed to HIV and [hepatitis B](#) or C virus—ideally starting within hours after the injury.

As a result of the need for testing and treatment, sharps injuries have a major economic impact. Average costs for testing, follow-up and preventive treatment range from \$375 for needlestick exposure from a patient with no known blood-borne illness, up to nearly \$2,500 for injuries from a patient with known HIV.

Need for Increased Emphasis on Reporting and Prevention Post-exposure prevention can only be executed if the injury is reported. One study found that 70 percent of surgeons "never or rarely" report sharps injuries. They may feel they "don't have time" to report, or may misunderstand the risks involved.

"Fortunately, the majority of sharps injuries are preventable," Dr. Chung and colleagues write. Engineered safety devices can prevent many injuries—especially if surgeons and other workers are involved in choosing to use them. Other options include the use of "non-sharp" alternatives, creating safe procedures for passing sharp instruments and wearing double gloves to reduce the risk of infection.

Over the years, regulations have been introduced to ensure that proper prevention and reporting strategies are in place. Introduction of the Needlestick Safety and Prevention Act of 2000 led to an overall 38 percent reduction in injuries in all care settings. However, one study

reported that the rate of sharps injuries in the operating room actually increased. "Although preventive strategies exist, their success ultimately relies on clinician compliance," Dr. Chung and coauthors write.

The authors hope their review will help to increase awareness of the risks and potential harms of sharps injuries among surgeons and operating room personnel, and to increase awareness of efforts to reduce the risk. They conclude, "Targeting educational initiatives during medical school and training may improve knowledge among surgeons of the safest ways to practice in the [operating room](#), and ensuring compliance among all [surgeons](#) in practice can reduce the economic and psychosocial burden of these highly prevalent injuries."

Provided by Wolters Kluwer Health

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