

Fact Sheet: PERCUTANEOUS INJURIES FROM SUTURE NEEDLES

- Suture needles are the main source of needlesticks to OR personnel, causing 51% of all sharps injuries in surgical settings. Scalpel blades rank a distant second, with 12% of injuries.¹
- Of the estimated 384,000 percutaneous injuries (PIs) occurring in U.S. hospitals each year,² sharp-tip suture needles account for approximately 14% (54,000 suture needle PIs/year).³
- The large number of injuries from suture needles increases the risk that a bloodborne pathogen, such as HIV, hepatitis B or hepatitis C, could be transmitted from a patient to a healthcare worker, or from a healthcare worker to a patient.
- If a surgeon is injured when his or her hands are in contact with the surgical site (the circumstances under which a patient can be exposed to the surgeon's blood), data show that a suture needle is the cause of injury in 71% of cases.⁴
- Follow-up for percutaneous injuries costs between \$500 and \$2,500 (if no infection is contracted)⁵, with an average of \$672 reported in one study⁶; for the estimated 54,000 injuries caused by suture needles each year, this translates to a potential cost to U.S. hospitals of \$36.3 million per year.
- A study published in the journal of the Association of periOperative Registered Nurses (AORN Journal) found that "59% of suture needle injuries were caused by needles used to suture muscle or fascia, for which blunt suture needles could be substituted."¹
- The study further found that if a 59% drop in suture needle injuries were realized, "this measure alone would result in an overall 30% drop in percutaneous injuries in the OR."¹

References

1. Jagger J, Bentley M, Tereskerz P. A study of patterns and prevention of blood exposures in OR personnel. *AORN Journal*. 1998;67(5):979-996.
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3. International Healthcare Worker Safety Center, University of Virginia Health System. EPINet Multihospital Sharps Injury Surveillance Network. Needlestick and Sharp-Object Injury Report (1997-2000; 9888 total injuries; 72 hospitals contributing data).
4. International Healthcare Worker Safety Center, University of Virginia Health System. EPINet OR Multihospital Surveillance Network – Operating Room Study conducted in conjunction with AORN, 1995-1996. Unpublished data (six hospitals, 15 months, 386 percutaneous injuries).
5. United States General Accounting Office. Occupational safety: selected cost and benefit implications of needlestick prevention devices for hospitals. GAO-01-60R; November 17, 2000. (Available at: <http://www.gao.gov/new.items/d0160r.pdf>.)
6. Jagger J, Bentley M. Direct cost of follow-up for percutaneous and mucocutaneous exposures to at-risk body fluids: data from two hospitals. *Advances in Exposure Prevention* 1998;3(3):25,34-35.