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in a special series of
5 risk assessment bulletins



Safe Handling of Sharps

What you need to know about OSHA, JCAHO and CDC regulations and standards... and how to analyze the real cost of those injuries.

“39% of all surgical scalpel injuries are inflicted by the user on the assistant.”⁸

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OSHA

Requires that employers who have employees with occupational exposure to bloodborne pathogens must, where appropriate, use effective engineering controls, including safer medical devices, in order to reduce the risk of injury from needlesticks and from other sharp medical instruments. **1**

JCAHO

Standard IC.4.10 The hospital* takes action to prevent or reduce the risk of nosocomial infections in patients, staff, and those who come into the hospital. *Elements of Performance:* The hospital implements strategies to reduce the risks and prevent the transmission of nosocomial infections to patients, staff...these strategies are consistent with current scientific knowledge, accepted practice guidelines, and applicable law and regulation. **2**

Standard IC.6.10 The hospital's infection control process is designed to lower the risks and to improve the rates or trends of epidemiologically significant infections. *Elements of Performance:* The nosocomial infection risk reduction process acts to lower the risks of, and to improve the trends in or rates of, epidemiologically significant infections...and appropriate action is taken to decrease infection rates or trends. **3**

Standard EC.1.10 The hospital manages safety risks. *Elements of Performance:* The hospital conducts proactive risk assessments that evaluate the potential adverse impact of buildings, grounds, equipment, occupants, and internal physical systems on the safety and health of patients, staff and other people coming to the hospital's facilities...and the hospital uses the risks identified to select and implement procedures and controls to achieve the lowest potential for adverse impact on the safety and health of patients, staff and other people coming to the hospital's facilities. **4**

Standard EC.9.10 The hospital monitors conditions in the environment. *Elements of performance:* The hospital establishes and implements process(es) for reporting and investigating the following - occupational illnesses and injuries to staff...and, hazardous materials and waste spills, exposures, and other related incidents. **5**

*The term Hospital also refers to all types of medical facilities.

Facts You Should Know

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28.8% of sharps injuries reported in the EPINet Sharps Injury Database for 2001 occurred in the O.R. with the second most frequent cause being from scalpels. Nurses sustained the highest injury rate in the report, 43.6%. **6**

Between 600,000 and 800,000 sharps injuries are incurred by healthcare workers annually. 46% of sharps injuries happen to nurses, followed by physicians (21%). 21% occur in surgery. **7**

39% of all surgical scalpel injuries are inflicted by the user on the assistant. **8**

Most scalpel injuries occur during assembly and disassembly, transfer between personnel, use of scalpel and then disposal. **9**

Centers for Disease Control have estimated that the rate of seroconversion following occupational parental exposure to infected blood is approximately 6% to 30% for HBV exposures, 5% to 10% for HCV exposures and 0.3 for HIV exposures. **10**

OSHA fines may be as high as \$11,340 per incident. **11**

Nurses practicing in the perioperative environment are at a distinct risk for cut/needlestick injuries due to prolonged exposure to open surgical sites and frequent handling of sharp instruments. **12**

Bloodborne infections, including human immuno deficiency virus (HIV), hepatitis B virus (HBV), and hepatitis C virus (HCV), pose an occupational risk to perioperative nurses. **13**

The cost of ONE staff non-infecting sharps exposure will run between \$500 (low risk exposure) to \$3000 (high risk exposure) simply due to reporting, medical testing, precautionary treatments and lost work hours, with the social and psychological cost being immeasurable. **14**

Benefits of Sharps Injury Prevention Devices

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- Reduced sharps injuries by 62% to 88%. **15**
- Decreased exposure to life-threatening bloodborne pathogens.
- Reduced Workers' Compensation claims.
- Reduced liability claims.
- Reduced lost work days.
- Eliminate staff fear of exposure while improving patient safety and staff satisfaction.

Footnotes

1 OSHA Occupational Exposure to Bloodborne Pathogens; Needlesticks and Other Sharp Injuries 29 CFR 1910. **2; 3; 4; 5** Joint Commission on Accreditation of Healthcare Organizations (JCAHO) 2004 Standards. **6** EPINet Sharps Injury Database. **7; 8; 9; 10; 14; 15** Centers for Disease Control (CDC); National Institute for Occupational Health and Safety (NIOSH) Preventing Needlestick and Sharps Injuries; General Information, Safer Needle Devices, Management and Treatment Guidelines. **11** OR Manager, March, 2003. **12** AORN Position Statement on Workplace Safety. **13** AORN Revised Statement on Patients and Health Care Workers with Bloodborne Diseases.

Cost Analysis of Expenses Resulting From Sharps Injuries

Period Covered to

Department Covered O.R. Other Facility-wide

Source of Information

of Claims Reviewed

| Costs | Total Cost |
|--|-------------------------|
| 1 Treatment | \$ <input type="text"/> |
| 2 Diagnostic Testing Required | \$ <input type="text"/> |
| 3 Drug Costs in Treating Staff Member | \$ <input type="text"/> |
| 4 Staff Time Off Due to Injury | \$ <input type="text"/> |
| 5 Cost of Replacement Staff | \$ <input type="text"/> |
| 6 Workers' Compensation Claim | \$ <input type="text"/> |
| 7 Time Spent Investigating and Reporting | \$ <input type="text"/> |
| 8 Increase in Facility's Insurance Premium | \$ <input type="text"/> |
| 9 Increase in Liability Reserves | \$ <input type="text"/> |
| 10 Attorney's Fees | \$ <input type="text"/> |
| 11 Cost of Settlement | \$ <input type="text"/> |
| 12 Other: | \$ <input type="text"/> |
| 13 <input type="text"/> | \$ <input type="text"/> |
| Total Cost For The Period | \$ <input type="text"/> |

Cost of product(s) to reduce/solve problem (\$2.00-\$4.00 per surgical procedure) \$

Potential cost savings per year \$

Nurse inspired innovative product(s) to solve this issue are available from Sandel Medical Industries, LLC.

Weighted Safety Scalpel™
Non-Weighted Safety Scalpel™
Sharps Safety Zone: Z-Tray™,
Z-Instrument Drape™, Syringe Anchor™

Prepared by

Title Date

Make safety a line item in your budget.

Associated Websites

www.jcaho.org

Joint Commission on Accreditation of Healthcare Organizations

www.osha.gov

Occupational Safety and Health Administration

www.cdc.gov

Center for Disease Control and Prevention

www.cdc.gov/niosh

National Institute for Occupational Health and Safety

www.aorn.org

Association of Perioperative Registered Nurses

www.premiersafetyinstitute.org

Premier Purchasing Partners Safety Website

www.nappsi.org

National Alliance for the Primary Prevention of Sharps Injuries

Partial List of Facilities Using Our Products

CHW/Northridge Hospital Medical Center Northridge, CA

Children's Mercy Hospital Kansas City, MO

University Hospital Charlotte, NC

V.A. Medical Center Providence, RI

Memorial Hermann Southeast Hospital Houston, TX



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