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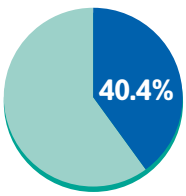
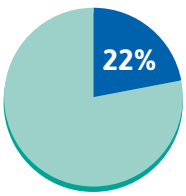
KNOWLEDGE FLASH

RISK AND PREVENTION OF SHARPS INJURIES IN THE OPERATING ROOM

The operating room (O.R.) is a high-risk environment for occupational injury.[1] Although sharp devices can cause injuries anywhere within the healthcare environment, data shows most injuries occur in the O.R.[2] Frequent passing, handling, and disposal of sharps bring opportunities for O.R. staff to sustain a sharps injury. Each sharps injury can potentially involve inadvertent exposure to serious bloodborne viral pathogens, such as, but not limited to: Hepatitis B, Hepatitis C, and Human Immunodeficiency virus (HIV).[1]



40.4% of all reported occupational sharps injuries occur in the O.R.[2]



22% were sustained while passing sharp devices between members of the surgical team[3]

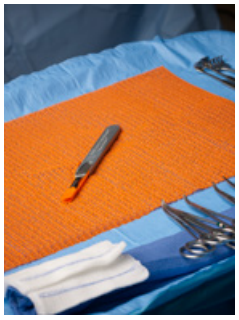
Injuries can cause direct and indirect costs to the individual and the workplace:[3]

- **Employee loss of time**
- **Personnel time lost in investigating the injury**
- **Laboratory testing expense**
- **Post-exposure treatment cost**
- **Replacing or reassigning staff cost**

Tips for Prevention of Sharps Injuries[4,5,6]

Double Gloving

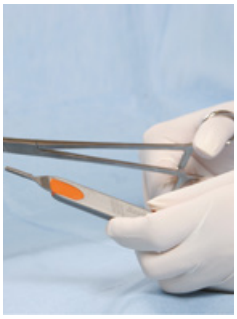
- Double gloving is recommended for all procedures
- Double gloving reduces the risk of exposure to patient blood by as much as 87% when the outer glove is punctured



Create a Neutral Zone

Protect yourself, co-workers, and patients:

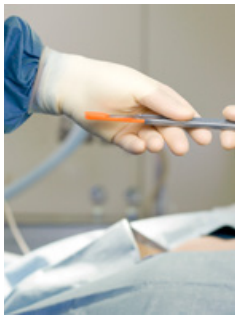
- Limit certain areas for sharps only
- Define the area, allowing flexibility for emergency situations
- Allow one instrument at a time in the zone
- Openly communicate what, when, and how the neutral zone will work



Use Correct Technique

Improper technique can lead to sharps injuries:

- Use instruments, rather than fingers, to grasp needles, load/unload suture and scalpels
- If required, one-handed recapping using the scoop method for hypodermic needles



Use Alternative Engineering Control Methods

- ***Cutting:*** electrocautery, ultrasonic scalpels
- ***Suture:*** blunt needles, stapling devices, adhesive strips, glues
- ***Instruments:*** blunt vs. sharp, protective caps on sharp instruments when not in use
- ***Scalpels:*** with safety shields

References:

1. Jagger J, Berguer R, Phillips EK, Parker G, Gomaa AE. Increase in sharps injuries in surgical settings versus nonsurgical settings after passage of national needlestick legislation. Journal of the American College of Surgeons. Apr 2010;210(4):496-502.
2. International Safety Center, EpiNet reports, 2022, https://internationalsafetycenter.org/exposure-reports/ accessed November 29, 2023.
3. Bevan V, Blake P, Radwan RN, Azzopardi E. Sharps and needlestick injuries within the operating room: Risk prone procedures and prevalence meta-analysis. J Perioper Pract. 2023;33(7-8):200-210.
4. Association of Operating Room Nurses. AORN Guidance Statement: Sharps Injury Prevention in the Perioperative Setting. Denver: Association of Operating Room Nurses,;2018
5. Berguer R., Key strategies for eliminating sharps injuries during surgery. AORN Journal.2011; 94(1):91-96.
6. Centers for Disease Control and Prevention. Stop Sticks Campaign. CDC Website. Accessed November 29, 2023. https://www.cdc.gov/nora/councils/hcsa/stopsticks/sharpsinjuries.html

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