Sharps injuries: Where we stand today

We can't afford to be complacent about sharps safety.

By Karen A. Daley, PhD, RN, FAAN

NEEDLESTICKS and other sharps-related exposures to bloodborne pathogens (including HIV, hepatitis B virus [HBV] and hepatitis C virus) continue to pose a significant occupational risk for healthcare workers. Largely preventable, these injuries are all-too-common events that create a significant burden for exposed workers, even if they don't lead to infection.

Over the last few decades, regulatory and legislative measures have been enacted to protect U.S. healthcare workers from bloodborne pathogens, including the Bloodborne Pathogen Standard, which established requirements for engineering controls, HBV vaccination, and use of personal protective equipment. In 2000, Congress unanimously passed the Needlestick Safety and Prevention Act (NSPA), which updated the Bloodborne Pathogen Standard and strengthened federal requirements for the use of sharps with engineered sharps injury protection (SESIP).

Between 2002 and 2007, we saw measurable progress in injury reduction linked to conversion to SESIPs. But since 2010, previously declining injury rates have consistently leveled off. Ongoing national injury surveillance ended in 2007, so we can't identify nationwide trends or determine what factors might be contributing to this leveling off.

What we know about the current state of sharps injuries

Healthcare workers continue to bear the burden of potentially life-changing sharps-related exposures. To reduce preventable injuries, nurses and other healthcare workers need to take action based on what we know about the current state of these injuries.

We know nurses and physicians are the most frequently affected healthcare workers, because they use sharps more often than others. The highest proportion of sharps injuries occurs in operating rooms, followed by inpatient units. Hollow-bore needles and syringes used for injection account for the greatest number of injuries. Suture needles consistently rank second.

We also know that up to one-third of sharps injuries occur between the time the sharp is used and when it's disposed of—even though effectively designed and fully activated SESIPs should virtually eliminate exposure risk.

Efficacy of a particular SESIP is measured by ease of use, level of training needed, and device dependability and acceptance. Unfortunately, some users don't activate SESIP safety features. In one study, researchers concluded that nonactivated SESIPs posed as much danger as conventional devices. An unacceptably high proportion of injuries continues to occur with devices lacking SESIP features, despite decades-long availability of appropriate alternatives designed to improve safety.

Injury-prevention strategies

While SESIPs remain a primary line of defense for preventing sharps injuries, the most effective prevention programs involve a comprehensive approach that includes:

- annual evaluation of the effectiveness of various SESIPs

- proper training
- engaging direct users in device evaluation and selection
- implementing evidence-based work control practices
- conducting ongoing real-time root-cause analysis of injuries whenever they occur.

What you can do to prevent sharps injuries

Use these strategies to help prevent sharps injuries.

✔ **Get involved in evaluating and selecting sharps devices.** The law mandates that as direct users, nurses must have an opportunity to be involved in evaluating and selecting SESIPs, to help ensure the most appropriate and effective devices are integrated into patient-care settings.

✔ **Implement effective work control practices.** Best practices for injury prevention include total elimination of sharps recapping and hand-to-hand passing of contaminated sharps in procedure or operating rooms.

✔ **Make sure to get training on new SESIPs.** As a rule of thumb, if a device requires hours of training, it's not a good device. The most effective devices are easy and intuitive to use.

✔ **Eliminate conventional devices where SESIPs are available and appropriate.** Injuries from using devices without SESIP features where safer alternatives exist are still unacceptably high.

✔ **Fully activate SESIP features.** Failure to fully activate safety features increases your injury risk.

✔ **Report all injuries.** If you sustain a sharps injury, don't conduct your own risk assessment. Not only could self-assessment deprive you of needed care, but it could also contribute to underestimation of injury rates in your care setting. We can't learn from sharps injuries that aren't acknowledged.

Sharps injuries: Facts and figures

385,000 Estimated number of hospital-based worker exposures each year*

50% Estimated percentage of sharps injuries that go unreported

$500 to $5,000 Estimated direct cost of each sharps injury

64% Percentage of sharps-related blood exposures that are preventable

Why preventable sharps-related blood exposures occur:

- failure to convert to sharps with engineered sharps injury protection (SESIPs) where appropriate
- poorly designed SESIPs
- inadequate training
- rushed care
- staff shortages
- unanticipated patient movement
- failure to properly activate SESIP features
- improper disposal of contaminated sharps
- failure to adopt evidence-based work control practices, such as avoiding hand-to-hand passing of contaminated sharps in operating rooms.

* This estimate doesn't take into account injuries in nonhospital settings, where as many as 40% of U.S. registered nurses work.

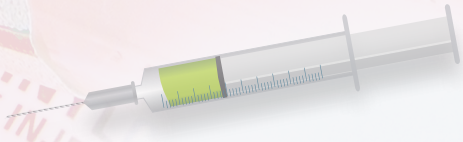
Source: Centers for Disease Control and Prevention

Embrace sharps safety and injury prevention

Both experts and clinical staff continue to identify sharps injuries as ongoing threats to worker health and safety. We can't afford to be complacent about sharps safety. All of us need to stay vigilant in our efforts to keep ourselves and our patients safe. ▲

Karen Daley is a past president of the American Nurses Association and a nationally recognized leader and advocate for sharps injury prevention.

Visit AmericanNurseToday.com/?p=24734 for a list of selected references.



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