

PREANALYTIC PULSE

Needlestick Injuries in the Healthcare Setting

The OSHA Bloodborne Pathogen Standard is the current Federal standard for dealing with needlestick injuries in the healthcare setting. In order to prevent such injuries, employers and employees must both comply with this standard and follow certain recommendations to reduce the risk of these occurrences.

The Bloodborne Pathogen Standard includes several elements that are required with regard to occupational exposure to potentially infectious materials, most notably blood. Most of these elements relate to developing an exposure control plan, having preventative and protective measures in place to decrease risk of exposure and requirements for follow-up prophylaxis in the event that a needlestick injury does occur.



The provisions of the Needlestick Safety and Prevention Act, which mandated changes in the Bloodborne Pathogen Standard, further define some of the requirements.

- The employer's exposure control plan must show documentation of the implementation and evaluation of engineering controls and needleless systems to improve safety and sharps injury prevention. This plan should be reviewed and updated on an annual basis.
- The employer must maintain a log of needlestick injuries that documents details, such as where and how the injury occurred and the particular device involved and yet maintain the privacy of the individuals affected. These records should be assessed for trends and potential hazards that pinpoint areas for improving safety.
- Employees that use safety devices in their role must be involved in identifying and evaluating new safety devices as they become available.

When considering devices with safety features, there are some desirable characteristics that have been identified by a variety of sources.

Desirable Characteristics for Safety Devices

The device does not require the use of a needle.
The safety feature is an inherent attribute of the device.
The device works in a passive manner and does not require activation by the user. When user activation is required, it allows the user's hands to remain behind the exposed sharp and can be activated with a single-handed technique.
The user is able to clearly discern when the safety feature of the device is activated.
The safety feature cannot be deactivated when used according to manufacturers' instructions.
The device is easy to operate.
The device is safe and effective for use with patients.

Often, not all of these characteristics are practical or feasible for particular situations or devices. These characteristics are meant to be suggestions with the ultimate goal being to reduce sharps injuries.

When a safety device is being evaluated or implemented, it is important to properly train employees on the correct use of the device and ensure compliance with the manufacturer instructions for use and disposal. Additionally, there should be means of providing continuing education to maintain proper technique for using the device and following procedure over time. Bloodborne pathogen training and increasing safety awareness should be part of this educational effort to improve compliance with safety policies.



Greiner Bio-One safety products are designed with these standards and criteria in mind.

- The **VACUETTE®** QUICKSHIELD, QUICKSHIELD Complete and QUICKSHIELD Complete PLUS employ a safety shield attached directly to the holder. The safety shield can be activated using a one-handed technique. The needle locks in place with an audible click reassuring the user that the shield is properly engaged.
- The **VACUETTE®** Blood Transfer Unit is used for transferring blood into an evacuated tube from a luer lock syringe without the use of a needle.
- The **VACUETTE®** Holdex® is a needleless transfer device for drawing from most types of ports into evacuated tubes.
- The **VACUETTE®** Safety Blood Collection Set includes several safety features. The luer adapter end of the needle is covered for protection prior to connecting to the holder. The safety shield is activated as the needle is removed from the vein, minimizing risk. An audible click is heard when the safety shield is locked in place.

Reference: NIOSH Alert: Preventing Needlestick Injuries in Health Care Settings.
[Online] Available at: <http://www.cdc.gov/niosh/docs/2000-108/> as of May 17, 2010