Executive Summary

Infection Control

Sharps Injury Prevention Programs

IN BRIEF

Annually, almost one in five healthcare workers experiences a needlestick injury (Premier Safety Institute “Prevent Needlestick Injuries”). To protect employees from exposure to bloodborne pathogens and to address the related regulatory requirements of the Occupational Safety and Health Administration’s (OSHA) bloodborne pathogens standard, organizations must develop and routinely review a comprehensive sharps injury prevention program.

OSHA’s bloodborne pathogens standard (see “Resource List”) requires employers with any employees who have occupational exposure to bloodborne pathogens to annually document consideration and implementation of safer medical devices designed to eliminate or minimize occupational exposure (e.g., needleless intravenous [IV] line connectors, shielded-needle devices)—referred to in this Risk Analysis as needlestick prevention devices (NPDs). The standard also requires employers to have a written exposure control plan, implement standard precautions, develop work-practice controls (e.g., not recapping needles with two hands, disposing of sharps immediately after use), make hepatitis B virus (HBV) vaccination available, and make evaluation and follow-up care available after an injury. (29 CFR § 1910.1030)

To ensure an organized and consistent approach to protecting employees against sharps injuries and addressing applicable regulatory requirements, ECRI Institute recommends that organizations develop a comprehensive sharps injury prevention program. These programs should address all aspects of sharps injury prevention, including staff education, development of safe work practices, and implementation of engineering controls, such as the use of sharps containers and NPDs. Also, the organization should review its sharps injury response policies, including incident reporting, postexposure evaluation, and the collection and analysis of incident data.

This Risk Analysis provides practical advice for establishing a sharps injury prevention program and for evaluating the effectiveness of that program. A Self-Assessment Questionnaire, “Preventing Sharps Injuries,” is available in the Self-Assessment Questionnaires.

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Action Plan

- Evaluate Injuries
- Involve Workers
- Implement the Program
- Eliminate and Substitute Sharps
- Choose Protective Devices
- Place Disposal Containers
- Choose Work-Practice Controls
- Train Workers
- Respond to and Report Injuries

Supplementary Material

- Steps for Creating or Evaluating a Sharps Injury Prevention Program
- Factors to Consider When Evaluating NPDs
- Sharps Safety Assessment: Blood Collection Needle Sets
- Sharps Safety Assessment: Blood Collection Needles and Tube Holders
- Sharps Safety Assessment: Disposable Syringes and Injection Needles
- Sharps Safety Assessment: Needleless IV Systems
- Sharps Safety Assessment: Peripheral Intravenous Catheters
- Questionnaire for Evaluating Sharps Disposal Container Performance
- Resource List

Route To

Chief medical officer, Clinical/biomedical engineering, Environmental health, Infection control, Laboratory, Nursing, Occupational health, Staff education
section of the Healthcare Risk Control (HRC) System to help organizations identify their specific needs. For more information on the bloodborne pathogens standard, see the Risk Analysis “OSHA’s Bloodborne Pathogens Standard,” elsewhere in this section of the HRC System.

**ACTION RECOMMENDATIONS**

- Evaluate sharps injuries and current practices at least annually.
- Involve employees—especially direct care personnel—when considering strategies to prevent sharps injuries.
- Implement a comprehensive program that addresses all aspects of sharps injury prevention, including staff training, safe work practices, and engineering controls, such as use of NPDs and sharps disposal containers.
- Eliminate sharps hazards or find a substitute whenever it is safe and clinically appropriate to do so.
- Evaluate protective devices, and annually review their effectiveness and the availability of new devices.
- Select sharps disposal containers, and ensure effective placement and use.
- Develop work-practice controls to prevent or mitigate sharps injuries.
- Train staff on methods to prevent or reduce exposure to bloodborne pathogens, in addition to other mandated topics.
- Have a mechanism for promptly responding to sharps injuries.
- Encourage sharps users to report all injuries, near misses, and device failures, and maintain a sharps injury log.
**IN BRIEF**

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This Risk Analysis provides practical advice for establishing a sharps injury prevention program and for evaluating the effectiveness of that program. A Self-Assessment Questionnaire, “Preventing Sharps Injuries,” is available in the Self-Assessment Questionnaires section of the Healthcare Risk Control (HRC) System to help organizations identify their specific needs. For more information on the bloodborne pathogens standard, see the Risk Analysis “OSHA’s Bloodborne Pathogens Standard,” elsewhere in this section of the HRC System.

**THE ISSUE IN FOCUS**

**Worker Safety**

Because of the environment in which they work, many healthcare workers—from physicians and nurses to housekeeping personnel and waste handlers—are at risk of accidental needlesticks and injuries from other potentially contaminated sharps (e.g., scalpels, lancets, broken capillary tubes). As a result, these workers are at risk of bloodborne pathogen infection.

In discussions of sharps injuries, needlestick injuries generally receive the most attention. Nevertheless, dangerous injuries can be caused not just by needles but also by other sharps such as sutures, scalpels, and glass capillaries. Thus, organizations need to take steps to protect workers from injuries caused by these types of devices as well.

Any needle or other sharp that has been used on a patient poses the risk of transmitting bloodborne pathogens to anyone who is subsequently injured by that needle or sharp. Such injuries, especially deep punctures caused by hollow-bore needles contaminated with blood, can result in the transmission of pathogens.
While many studies emphasize the risks from bloodborne pathogens such as HBV, hepatitis C virus, and HIV, healthcare workers are also at risk of contracting diseases such as malaria, syphilis, and viral hemorrhagic fevers after exposure to used sharps.

The best approach for preventing the transmission of pathogens to workers is through preventing accidental needlesticks and other sharps injuries (NIOSH). Although healthcare workers and administrators should already be aware of the risks associated with the use of needles and other sharps—and thus the need to take preventive measures—ECRI Institute believes that two specific points need to be stressed.

First, the healthcare workers at risk are not limited to physicians and nurses. Staff throughout the organization, including clinical laboratory staff, pharmacy staff, housekeeping personnel, and waste handlers, could be exposed to a contaminated needle in the course of performing their duties. One review found that, of sharps injuries reported from 29 hospitals in one year, nearly 33% of the injuries occurred to nurses, and another 32% occurred to doctors, fellows, or residents. The remaining injuries occurred to other personnel, including paramedics, security staff, housekeeping staff, respiratory therapists, surgery attendants, and clinical lab workers. (Perry et al.)

Second, although occupational hepatitis and HIV seroconversions are rare, the consequences can be life-threatening; thus, preventive measures are necessary. Because needlesticks and other sharps injuries are often underreported, low injury rates should not be interpreted to mean that a problem does not exist.

**Claims and Lawsuits**

Employees based in the United States who contract an infection as the result of a sharps injury are entitled to workers’ compensation benefits. (Because workers’ compensation is a no-fault system, benefits are generally available in most states regardless of whether the employee followed safety rules and preventive practices.) Furthermore, although workers’ compensation is generally an exclusive remedy, an employee may be able, in some jurisdictions, to sue an employer on the theory that it intentionally created a hazardous work environment by knowingly failing to adopt proper workplace safety measures. See the Risk Analysis “Workers’ Compensation,” in the Employment Issues section of the HRC System, for more information on this topic.

In addition, independent contractors who are not bound by workers’ compensation may be able to successfully bring a negligence suit against the hospital. In one case involving a Connecticut hospital, a jury awarded $12.2 million to a woman who became infected with HIV after receiving a needlestick while she was a first-year medical intern (American Health Consultants).

**Financial and Operational Risks**

In addition to the physical and emotional consequences for the person who receives the sharps injury, such injuries can have a substantial economic impact on the organization. The combined costs of lost employee time, laboratory testing, evaluation, and initial treatment (if necessary) stemming from a sharps injury can be significant.

**REGULATIONS AND STANDARDS**

To reduce the risks associated with the use of needles and other sharps, governing bodies in many parts of the world have established laws, standards, or codes of practice directing organizations to implement protective measures. In the United States, employers with employees who have occupational exposure to bloodborne pathogens in the course of their employment are required by law to implement the protective measures detailed in OSHA’s bloodborne pathogens standard, which requires employers to consider safer medical devices, along with other engineering controls, to prevent sharps injuries.

The standard requires the following, among other provisions (29 CFR § 1910.1030):

- A written exposure control plan
- Standard precautions
- Engineering controls selected with input from frontline workers and data obtained during at least annual reviews of the protective device marketplace
- Work-practice controls (e.g., not recapping needles with two hands, disposing of sharps immediately after use) selected with input from frontline workers
- Availability of HBV vaccination
- Availability of evaluation and follow-up care after an injury
- Education and training

Likewise, the Joint Commission has issued a Sentinel Event Alert on preventing needlesticks and other injuries (see “Resource List”) that organizations should review.
ACTION PLAN

EVALUATE INJURIES

Action Recommendation: Evaluate sharps injuries and current practices at least annually.

Effective sharps injury prevention programs are not developed overnight. They result from thoughtful planning and ongoing review, analysis, and revision. Thus, it is important that employers regularly review sharps injuries and current practices and update their programs as circumstances change. OSHA requires that employers review their exposure control plan at least annually and whenever necessary to reflect new or modified tasks or employee positions with occupational exposure. “Steps for Creating or Evaluating a Sharps Injury Prevention Program” lists general steps organizations can take to develop a new sharps injury prevention program or evaluate an existing one. In addition, the Centers for Disease Control and Prevention offers a workbook on the topic (see “Resource List”).

When designing a sharps injury prevention program—or when looking for ways to improve an existing program—start by collecting and reviewing information about past sharps injuries and present work practices. Examining the organization’s history of needlesticks and other sharps injuries (see the discussion Respond to and Report Injuries) can help identify where and when (e.g., during which procedures or applications) such injuries occur.

Similarly, assessing current work practices will help identify practices that may increase the risk of injuries. The organization should also determine what, if any, sharps injury prevention practices have already been implemented. For example, find out what educational efforts have taken place and which types of engineering controls have been implemented. Then examine whether the existing practices and policies are followed and whether they are effective. The organization should specifically monitor employee compliance (e.g., by comparing the number of procedures with the number of products used) and investigate any problems that are identified.

Recognize, however, that because data collection can be a time-consuming process, it may be necessary to begin implementing the program before obtaining a complete picture of the sharps injury risks at the organization. Rather than viewing data collection as an initial step, consider it an ongoing process. The data gathered will help identify areas in which further improvements in the program can be made. Also, when reviewing data on sharps injuries, remember that underreporting

Steps for Creating or Evaluating a Sharps Injury Prevention Program

Following are general steps organizations can take to develop a new sharps injury prevention program or evaluate an existing one:

1. Assess injuries and practices.
   - Encourage reporting of sharps injuries, device failures, and near misses.
   - Periodically review sharps injury data.
   - Assess current work practices.
   - Review current sharps injury prevention practices.

2. Define specific objectives.
   - Define program objectives.
   - Prioritize implementation efforts.

3. Establish an action plan.
   - Involve direct care personnel.
   - Review risk reduction strategies.
   - Identify categories of devices for which the organization will consider needleless or safer alternatives.
   - Evaluate device safety and efficacy.

4. Implement the changes.
   - Select other engineering controls (e.g., sharps disposal containers).
   - Review availability of new devices at least annually.

5. Periodically assess the program’s effectiveness.
   - Review sharps injuries on a monthly basis after starting or changing the program.
   - Consider staff feedback on the program and devices.
   - Review the program’s overall effectiveness at least annually.
Effective programs can be developed by a sharps injury prevention committee or other safety committee that includes representatives from several areas in the organization, including administration, materials management, appropriate clinical areas (e.g., nursing, clinical laboratory, pharmacy), and housekeeping. Also, such staff members as the infection preventionist, industrial hygienist, occupational health officer, and medical director should be involved. Personnel in other departments and settings (e.g., operating room, emergency department, nuclear medicine, home care) will likely need to be called on to address specific concerns. Finally, the perspectives of nonmanagerial staff who provide direct patient care must be considered when developing the program to comply with OSHA’s requirement that frontline workers participate in the evaluation and selection of effective engineering and work-practice controls.

**IMPLEMENT THE PROGRAM**

**Action Recommendation:** Implement a comprehensive program that addresses all aspects of sharps injury prevention, including staff training, safe work practices, and engineering controls, such as use of NPDs and sharps disposal containers.

The data collected on injuries and current practices will help define the objectives of the program and prioritize implementation efforts. Ideally, it would be possible to implement all protective measures simultaneously. However, the reality is that different aspects of a sharps injury prevention program will be phased in over a period of time. ECRI Institute recommends focusing first on the applications that pose the greatest risks of sharps injuries from contaminated needles and other objects. Other applications would then be addressed in descending order of risk.

In general, sharps that have penetrated the patient’s skin or that have contacted body fluids, especially blood, pose the greatest infection risk if an individual is subsequently injured by that sharp. In contrast, injuries from needles used to draw medication into a syringe are considered to pose no significant infection risk. Keep in mind, however, that the clinical use—and thus the contamination status—of the needle or other sharp won’t always be known, as in the case of injuries that occur after disposal. In such cases, needle contamination should be assumed.

High-risk applications include blood collection and phlebotomy, IV therapy applications, intramuscular...
and subcutaneous injections, catheter placement, and suturing. A safety program should specify protective measures for the activities that occur before, during, and even after (e.g., to protect housekeeping personnel) all these procedures.

A core component of many sharps injury prevention programs is the selection and use of protective devices. Remember, however, that implementing protective devices or changing devices is just one way of addressing the problem. Additional methods, such as changes in work practices, training, and other engineering controls (e.g., making a change in the design, size, location, or number of sharps containers), also may be acceptable methods of reducing injuries and exposures. By combining a variety of measures in a well-designed plan, organizations can ensure optimal use of resources.

After a program has been developed and protective devices have been selected, a plan will be needed for implementing the changes. The plan should specify who is responsible for implementing different aspects of the program, when specific milestones should be completed, and what results the organization expects to achieve. The organization should establish a mechanism for quickly responding to problems that arise during implementation of the program, such as the incompatibility of a protective device with an infrequently performed procedure. It should also have a mechanism for encouraging, documenting, and responding to employee comments about the protective measures instituted. For example, employees should be encouraged to report—and organizations should investigate—dissatisfaction with protective devices used.

**ELIMINATE AND SUBSTITUTE SHARPS**

**Action Recommendation:** Eliminate sharps hazards or find a substitute whenever it is safe and clinically appropriate to do so.

The most effective hazard controls are elimination of the hazard and substitution of the hazardous element for a less hazardous element (NYCOSH). For example, the organization can aim to eliminate needles from use in any application for which a needleless alternative (e.g., needleless IV system) is available and clinically appropriate for the patient. This recommendation applies even to applications for which the risk of a needle becoming contaminated during use is relatively low. Eliminating needles whenever possible not only eliminates the risk of injury to the user but also eliminates the possibility of injuries occurring after the needle has been discarded.

**CHOOSE PROTECTIVE DEVICES**

**Action Recommendation:** Evaluate protective devices, and annually review their effectiveness and the availability of new devices.

Often, implementing protective devices will offer the greatest reductions in exposure risks. A wide variety of devices that offer effective sharps protection for other applications (e.g., syringes that shield the needle after use) are currently available.

The first step in the selection process is determining the availability of protective devices for the applications that pose a risk of needlesticks or other sharps injuries. Currently, a large number of products designed to reduce the risk of injuries are being marketed for a variety of uses—from blood collection and injection applications to IV therapy and surgical applications.

OSHA requires that employers review available devices designed to eliminate or minimize occupational exposure at least annually; the organization should use this review as an opportunity to identify whether newly available products would offer more effective protection than the products currently being used.

When starting the device selection process, ECRI Institute recommends organizing the available models into product groups according to their intended function. The protective devices that are classified into each group should all be able to be used in place of the same conventional (e.g., needle-using) alternative. Typically, the devices in each group will be similar in form and function.

Determining which categories of devices should be considered—and in what order—will depend on how far your program has progressed. If the organization still needs to replace multiple categories of conventional devices with protective models, ECRI Institute recommends tailoring the selection process to focus first on categories of devices that can be used for the applications that pose the greatest risk of accidental needlesticks or other sharps injuries. If, on the other hand, protective devices have already been implemented for high-risk applications, focus on identifying (1) any applications that are still experiencing unsatisfactory injury rates and (2) any additional applications for which protective devices are now available.

The next step is to evaluate the safety and efficacy of NPDs. “Factors to Consider When Evaluating NPDs” describes issues to take into account, and five sharps safety device assessment forms are available in the
Factors to Consider When Evaluating NPDs

When evaluating an NPD’s safety and efficacy, questions to be asked include the following (ECRI Institute Sharps; Premier Safety Institute):

- Does the device allow the user’s hands to be behind the needle at all times?
- Are the safety features integrated into the device?
- How easy is it to use?
- Can it be used by both left- and right-handed personnel?
- Is it very obvious when the safety feature has been engaged?
- Once engaged, does the safety feature lock into place, preventing slippage?

ECRI Institute has found the following to be important considerations when evaluating NPDs (ECRI Institute “Needlestick”):

- Preremoval activation. Some needle-retracting products can be activated while the needle is still embedded in the patient—a mechanism draws the needle out of the patient and into the syringe (rather than the user withdrawing the needle manually). This provides the highest level of protection, since the used needle is never exposed. However, if the user chooses not to activate the mechanism until the needle has been withdrawn from the patient, the level of safety will be significantly reduced. Nevertheless, this may be the mode of activation preferred by staff members.

- One-handed activation. Protective devices that use manual needle retraction or employ a barrel shield require two hands for activation. This is a significant ease-of-use concern, and ECRI Institute recommends choosing devices with one-handed activation whenever possible. The issue is especially crucial during applications in which the second hand is needed to apply pressure to the wound after needle withdrawal. It is less significant during applications in which the second hand is likely to be free, as when administering injections.

- Avoiding “shielded but not safe” status. Several products can be left in a condition ECRI Institute refers to as “shielded but not safe”—that is, the protective mechanism is activated only temporarily, as part of the product’s intended use or because of user error. This creates the potential for a user to pick up the device thinking that the needle is permanently shielded, accidentally reexpose the needle, and become injured. This is a less critical drawback for devices that have a status that is easy for a knowledgeable user to identify—for example, products with a plunger that is intended to be broken off after the needle has been withdrawn into the syringe. But for some devices, the shielded-but-not-safe status may not be obvious, even to an experienced user, making the risk of a needlestick particularly acute.

One study has suggested that left-handed staff members are more likely to experience a needlestick injury. The authors posit that some instruments are designed for right-handed use and that such designs can predispose left-handed staff members to inadvertent mishaps during their use. Instruments should be reviewed, and organization leadership should consider offering left-handed instruments if necessary. (Naghavi and Sanati)

For some organizations, standardization issues may also be an important consideration. For example, the purchasing process often can be simplified—and expenses can be reduced—if all or most of the organization’s needs can be met by a single supplier. In addition, products that must be used together will likely continue to be compatible in the future.

References

ECRI Institute:


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all the organization’s existing needs and whether the device can be used with its current models of sharps containers.

Protective devices are a good and necessary investment. Therefore, ECRI Institute cautions organizations not to be “penny-wise and pound-foolish” when choosing the type and model to buy. That is, the organization should resist the urge to focus on costs alone and should instead focus on making wise investments in protective technologies.

Once new devices have been selected, the organization must make supplies readily available and remove devices that are to be replaced by protective devices. Note that conventional (e.g., needle-using) devices should remain available if there are applications not covered by protective devices.

PLACE DISPOSAL CONTAINERS

Action Recommendation: Select sharps disposal containers, and ensure effective placement and use.

Disposal considerations are another item that may be factored into the analysis. For example, will the added bulk of the protective devices selected increase the required frequency of sharps container replacement or require the use of larger containers? The OSHA blood-borne pathogens standard requires that all sharps, even if protected, be disposed of in a sharps container. State regulations on disposal may also apply to needleless systems, as well as systems with needles. While disposal costs can be reduced if needleless devices can be placed in an infectious waste bag or container, organizations must ensure that no part of these devices penetrates the bag or container. Also, because some devices will still require disposal in sharps containers, the presence of different disposal methods for different devices could cause confusion. Note, however, that disposal convenience issues cannot outweigh worker safety considerations. (OSHA)

The National Institute for Occupational Safety and Health (NIOSH) offers specific guidance on selecting and using sharps disposal containers (see “Resource List”); one of the tools from the NIOSH guidance appears in “Questionnaire for Evaluating Sharps Disposal Container Performance,” in the “Sample Policies and Tools” section of the HRC members’ website. More guidance on these topics appears in the Risk Analysis “Sharps Disposal Containers,” elsewhere in this section of the HRC System.

CHOOSE WORK-PRACTICE CONTROLS

Action Recommendation: Develop work-practice controls to prevent or mitigate sharps injuries.

Engineering controls are not available for all sharps, and even with engineering controls, staff may still face some risk of experiencing sharps injuries. Work-practice controls can help further prevent or reduce exposure, especially if used in combination with engineering controls.

Work practices that could be incorporated into the sharps injury prevention program, with input from direct care staff, include the following (Premier Safety Institute “Safer Work Practices”):

- Avoid surprises. Check documentation, ask the nurse in charge of the patient’s care (or the nurse handing off care in the case of a nurse-to-nurse handoff) if there is anything you need to know, and introduce yourself to the patient before beginning care.
- Ask for help if the patient is confused, uncooperative, or combative.
- Before starting the procedure, ensure that the work surface is stable and a sharps disposal container is available.
- Limit use of butterfly needles, and use safety-engineered butterfly devices when they are necessary.
- Do not pass a sharp hand-to-hand to another person.
- For minor surgical procedures performed outside an operating room, designate a neutral zone where instruments can be placed and retrieved without hand-to-hand transfer.
- Prohibit two-handed needle recapping.
- Dispose of sharps immediately after use.
- Use a brush and dustpan to clean up broken glass.
- If a patient is uncooperative, communicate this information to other personnel (e.g., orally, via a wipe board visible only to the care team).

Staff members must not use workarounds or take shortcuts. In one case, an intern was stuck while attempting to use a needle that was not designed for the procedure he was trying to perform; a review of the needlestick suggested that his use of the incorrect needle was a significant factor in the resulting injury. (Henderson)
**TRAIN WORKERS**

**Action Recommendation:** Train staff on methods to prevent or reduce exposure to bloodborne pathogens, in addition to other mandated topics.

OSHA’s bloodborne pathogens standard requires employers to train employees on the use and limitations of methods to prevent or reduce exposure to bloodborne pathogens, including appropriate engineering controls, work practices, and personal protective equipment, and the employer’s exposure control plan, among many other specifically mandated topics (see the Risk Analysis “OSHA’s Bloodborne Pathogens Standard,” elsewhere in this section of the HRC System, for information on other mandated topics and training requirements). In addition to requiring at least annual training and training for new employees, OSHA’s bloodborne pathogens standard requires employers to provide additional training whenever tasks or procedures that affect the employee’s occupational exposure are added or changed.

Therefore, one challenging aspect of improving a sharps injury prevention program is ensuring that all personnel on all shifts are trained. The organization may also seek supplier support for in-service training on the use of the protective devices that will be implemented. This may be crucial for organizations that have large numbers of employees or that do not have a well-developed training program. Supervisors should be prepared to help users who have difficulty understanding when and how to use the new devices.

Each NPD design requires some specific user action to engage the safety feature—for instance, some require pushing a button, while others may require sliding a protective mechanism over the sharp. Users must be trained to know how each NPD is activated to ensure proper performance. Since some healthcare workers may use a variety of NPDs daily, they need to be proficient with each type that they use.

**RESPOND TO AND REPORT INJURIES**

**Action Recommendations:** Have a mechanism for promptly responding to sharps injuries.

Encourage sharps users to report all injuries, near misses, and device failures, and maintain a sharps injury log.

Two important areas to review are the organization’s processes for injury response and reporting. To be effective, both should be easy for employees to follow and accessible to employees on all work shifts. The success of both activities will depend on the institution’s safety climate. For example, does the organization encourage employees to report injuries immediately and seek proper evaluation, or do attitudes or institutional barriers exist that discourage these activities?

Organizations subject to OSHA’s bloodborne pathogens standard must have processes for making post-exposure evaluation and follow-up available to all employees who have had an exposure incident. When a needlestick does occur, the employee should provide care to the exposed site and immediately follow the organization’s procedures for obtaining postexposure evaluation. For more on appropriate actions to be taken, see the Risk Analysis “Occupational Exposure to Blood or Body Fluids,” elsewhere in this section of the HRC System, which provides more detailed guidance about postexposure evaluation and follow-up.

Retrospective information (i.e., data gathered about previous injuries) may be incomplete, or some of the facts surrounding specific incidents may be unclear. Better-quality information about the organization’s experiences and needs can be obtained through a reporting program in which sharps injury data is collected on an ongoing basis and in a consistent manner. For this reason, ECRI Institute recommends that all healthcare and aging services organizations—not just those subject to the requirements of OSHA’s record-keeping standard and its bloodborne pathogens standard—maintain a sharps injury log. The log should include details about each injury, an explanation of how the incident occurred, the brand name and type of device that was being used, and the department or work area where the incident occurred—all while maintaining strict confidentiality (for both the injured employee and the patient on whom the sharp had been used).

Keep in mind that, to be truly useful, an incident report must contain enough information to determine the causes of an injury. For example, it’s not enough to know that a worker received a needlestick while
disposing of an item in a sharps container. To avoid similar incidents, organizations should try to answer the following questions:

- What specific product was being disposed of?
- How was the user placing it in the container?
- What was the condition of the container (e.g., empty, full, mounted too high on the wall)?
- Was the container opening large enough for the product being disposed of?
- Was the needlestick caused by the sharp that was being disposed of or by another item in the container?
- How or why was the user stuck?

Underreporting of needlesticks is a problem to be taken seriously (Henderson). Staff members might not think the needlestick is substantial enough to warrant treatment, but leadership should remind all staff members that their safety, as well as that of the patients, is paramount. A review of needlestick reports by leadership and key staff members may indicate that staff education is needed or that the NPD in question is not the most efficacious for the organization. Reports received by ECRI Institute indicate that a significant amount of needlestick injuries occur because the user activated the NPD incorrectly or because the NPD malfunctioned, but the latter is less common. Again, such reports underscore the importance of documenting all needlestick injuries for further review to determine if the NPD is appropriate to the needs of the organization, if further staff education is needed, or if the NPD was faulty. (ECRI Institute)

ECRI Institute also recommends that users be encouraged to report “near misses” and device failures. This information will provide a more complete picture of the injury risks at the organization. The more complete the data, the better able the organization

**Resource List**

**Centers for Disease Control and Prevention**  
(800) CDC-INFO (232-4636)  
http://www.cdc.gov  

**ECRI Institute**  
(610) 825-6000  
http://www.ecri.org  

**International Healthcare Worker Safety Center**  
(434) 924-5159  
http://www.healthsystem.virginia.edu/pub/epinet  

**Joint Commission**  
(630) 792-5800  
http://www.jointcommission.org  

**National Institute for Occupational Safety and Health**  
Centers for Disease Control and Prevention  
(800) CDC-INFO (232-4636)  
http://www.cdc.gov/niosh  

**Occupational Safety and Health Administration**  
(800) 321-OSHA (6742)  
http://www.osha.gov  

**Premier Inc.**  
(877) 777-1552  
http://www.premierinc.com  

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will be to assess the effectiveness of its sharps injury prevention program.

Needlesticks must also be reported to the U.S. Food and Drug Administration if related to a patient death or the serious injury of any individual. If a staff member (or any person) is exposed to infectious materials from a needlestick in which device failure was a factor and this person required medical or surgical intervention to prevent permanent harm, the event is reportable. First aid is not considered medical intervention and is not reportable. Likewise, diagnostic tests are not considered medical intervention. However, injection of a tetanus or gamma globulin shot and the application of stitches are considered medical intervention; therefore, events in which these are required must be reported. (U.S. FDA)

References

29 CFR § 1910.1030.


Premier Safety Institute:

