



Technical Bulletin

North Carolina State Laboratory of Public Health | Laboratory Improvement Unit

Steps to a Successful Sharps Evaluation Program

Needlestick prevention has become a hot topic over the last few years and with good reason. The CDC estimates that each year 385,000 needlesticks and other sharps-related injuries are sustained by hospital-based healthcare personnel; an average of 1,000 sharps injuries per day,¹ a staggering statistic. Throughout the last twenty years, many advances have been made to protect healthcare personnel from sharps injuries. In 2001, significant progress was made through the “Needlestick Safety and Prevention Act” to ensure the evaluation and implementation of safer devices. Although personnel safety is the most important consideration, facilities can also look at sharps evaluation as a cost-saving measure. The costs of a needlestick injury can include direct costs such as follow-up treatment of exposed healthcare personnel and indirect costs, such as employee’s medical leave.

Sharps evaluations are an integral part of a successful needlestick prevention program. OSHA requires annual sharps evaluations as outlined in the Bloodborne Pathogen Standard:

1910.1030(c)(1)(iv)(B) *Document annual consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.*

1910.1030(c)(1)(v) *An employer, who is required to establish an Exposure Control Plan shall solicit input from non-managerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps in the identification, evaluation, and selection of effective*

engineering and work practice controls and shall document the solicitation in the Exposure Control Plan.²

Although the task may seem daunting, sharps evaluations can be easily performed and with the aid of healthcare personnel, can be completed in a timely manner. CDC outlines eleven steps that can assist your facility and make the process go very smoothly.

1. Organize a product selection and evaluation team

The first step in the sharps evaluation process is assembling a team. Keep in mind, you need team members with various expertise and job functions. The most important team members, however, are the employees who actually use the devices. Their input is invaluable to this process and is required by OSHA.

2. Set priorities for product consideration

To avoid confusion, it is best to choose one type of product to evaluate at a time. This can avoid unforeseen compatibility problems. Find areas where your sharps program may be weak and focus on those devices. For example, if sharps disposal is an area you may not feel up-to-date, evaluate various types of sharps containers.

3. Gather information on use of the conventional device

Before evaluating new devices, the team must first become knowledgeable of the device they are

replacing. Obtain information such as frequency of use, most commonly used sizes and the purpose of use. A survey of current users (e.g., nursing and laboratory staff) may help glean information on expectations and unique clinical needs that should be considered.

4. Determine selection criteria

Product selection can be broken down into two categories, design criteria and performance criteria. Design criteria focus on the physical attributes of the device. Performance criteria examine how well a device functions for its intended purpose. Other factors to consider may include the impact on waste volume and packaging. Each facility has different concerns so choose the criteria that make the most impact on your setting.

5. Obtain information on available products

Colleagues are perhaps your most valuable resource when it comes to obtaining information. Call lab managers at other health departments for suggestions on new devices to evaluate. The internet is also a great resource. Two websites recommended by the CDC include:

- <http://www.isips.org>
- <http://www.premiersafetyinstitute.org/safety-topics-az/needlestick-prevention/resources-and-tools/>

6. Obtain device samples

Manufacturers and vendors are usually more than happy to send products for your consideration. Choose the devices based on your design and performance criteria. Follow up with the company representative on any technical questions related to the product.

7. Develop a product evaluation form

To standardize evaluation criteria, a product evaluation form must be used. Obtain a generic device evaluation form and tailor it to your facility's needs. CDC has a form in its document entitled "Workbook for Designing, Implementing, and Evaluating a Sharps Injury Program". https://www.cdc.gov/sharpsafety/pdf/sharpsworkbook_2008.pdf

8. Develop and implement a product evaluation plan

According to the CDC, there are five steps to this process:

- **Select clinical areas for evaluation** - Include representatives from **all** areas with different needs. Opinions from both new and experienced staff can be very enlightening.
- **Determine the duration of the evaluation** - Two to four weeks is suggested but your facility must determine the amount of time suitable for your needs.
- **Plan for staff training** - An understanding of how to use the device properly is essential; therefore, training is a must. Training should include why the change is being proposed, an explanation of the evaluation process, and what is expected of the participants.
- **Determine how products will be distributed for evaluation** - It is best to remove the usual device from the evaluation area and completely replace it with the device under study. Have the conventional device as back-up only if the new product does not meet an immediate need.
- **Determine when and how end-user feedback will be obtained** - Feedback can first be obtained informally and shortly after the onset of testing. This can provide preliminary results and may also reveal problems that require terminating the evaluation early. The second stage of feedback entails distribution of the product evaluation forms. Provide these forms as soon as the evaluation period is complete.

9. Tabulate and analyze results

Compile the data from all survey forms. Once all data is scored, the responses can be broken down by different variables, such as clinical area and job function. This can detect differences in opinion influenced by variations in clinical needs.

10. Select and implement preferred product

Once user feedback and other factors are considered, the team should make a product selection. If a new product is to be implemented,

the change should occur systematically and provide training to all end-users. A back-up plan should be in place just in case the product is unable to meet the needs of all facility personnel.

11. Monitor post-implementation

Follow up by observing and responding to any issues not considered during the initial evaluation period. This can be accomplished by assessing and documenting staff competence with the new device. Also, to ensure the best decision was made for your staff, periodically assess various factors encountered when using the new device such as ease of use, patient response, sample quality, and problem incidents (such as needlesticks).

Ensure that all evaluations and assessment records are retained, and that collection policies and procedures are revised as appropriate, to reflect the proper use of new products.

Sharps safety is very important to and should be taken seriously by all healthcare personnel. Sharps evaluations are an excellent tool to get staff involved in making their workplace safer. By creating a safety culture in your facility, your personnel feel more valued and it can, in turn, improve employee morale!

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References:

1. Centers for Disease Control and Prevention. [CDC Workbook for Designing, Implementing, and Evaluating a Sharps Injury Program](#) Accessed September 20, 2018.
2. Occupational Safety and Health Administration. Federal Register 29 CFR 1910.1030 Bloodborne Pathogens Standard. [Bloodborne pathogens. - 1910.1030](#) Accessed September 20, 2018.
3. International Sharps Injury Prevention Society (ISIPS) http://www.isips.org/page/product_evaluation_for_ms Accessed September 20, 2018.



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