

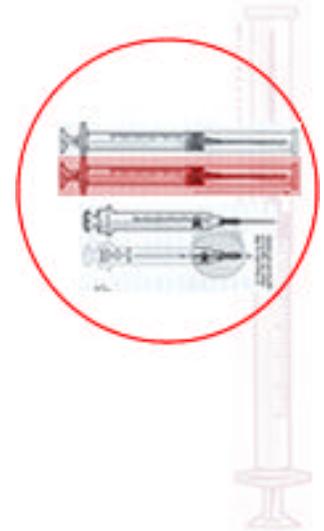
NIOSH recommends that health care facilities use safer medical devices to protect workers from needlestick and other sharps injuries. Since the passage of the Needlestick Safety and Prevention Act in 2000 and the subsequent revision of the OSHA Bloodborne Pathogen Standard, all health care facilities are required to use safer medical devices.



## SAFER MEDICAL DEVICE IMPLEMENTATION IN HEALTH CARE FACILITIES

### SHARING LESSONS LEARNED

NIOSH has asked a small number of health care facilities to share their experiences on how they implemented safer medical devices in their settings. These facilities have agreed to describe how each step was accomplished, and also to discuss the barriers they encountered and how they were resolved, and most importantly, lessons learned.



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## Phase 3 Report Identify and Screen Safer Medical Devices

This nursing care center is a 500-bed JCAHO accredited long-term care facility that provides 24-hour care to psycho-behavioral and medically/physically handicapped residents with intermediate and skilled nursing care needs. Provision of care is accomplished by 600 employees in the following departments: Medical, Nursing (including Infection Control), Quality Improvement, Respiratory Therapy, Activity Therapy, Occupational Therapy, Pharmacy, Chaplaincy, Physical Therapy, Nutritional, Environmental, Education, Speech & Hearing, Social Work, Health Information, Supply, Volunteer, Physical Plant and Employee Health.

### IDENTIFYING PRODUCT OPTIONS

After the teams' decision to screen sharps disposal containers, we then identified available products that would meet the employees' needs at the facility.

The facility supply manager was the first person contacted to provide products. After receiving no response for several weeks, the multi-facility purchasing director was notified. After several requests, he provided a short list of vendors and phone numbers. We then attempted to call each vendor, sometimes receiving erroneous information about names and numbers of representatives. This required additional time, phone calls and follow-up to locate the correct person. In one case, an operator was covering for a product representative while he was on vacation and was having trouble understanding what we were requesting. One vendor was contacted from an advertisement in a professional journal with a request for sharps disposal containers and we received samples of sharps that included injectables, lancets and phlebotomy supplies.

### DEVICES TO BE SCREENED

For each vendor contacted, we requested complimentary samples of sharps disposal containers. Medium-sized containers for the medication cart and small-sized containers for the phlebotomy tray were exclusively requested to meet the needs of the facility. A total of five vendors sent in sharps disposal containers after multiple calls to the representatives. We also contacted our current vendor for possible updated products. He responded immediately and attended one of our meetings, presenting a newer safety feature on the sharps disposal container.

### EVALUATION TOOL DEVELOPMENT

While waiting for containers to arrive at the facility, the team developed an evaluation tool to screen and select the final product to be pilot tested.

Sample evaluation tools from the OSHA Bloodborne Pathogen Guidelines were provided to the team members who reviewed and then selected specific criteria for inclusion in the evaluation tool for this facility. (A copy of the product evaluation is located at the end of this report.)

The team decided the evaluation tool developed and used for screening would also be used by direct care staff during the clinical trial.

### SCREENING THE DEVICE

Once the evaluation tool was finalized and the containers arrived at the facility, team members screened all devices during three meetings. At each meeting, actual sharps containers were provided to each team member for assessment of each type of container. Members assembled the containers, dropped them on the floor to test impact resistance, disposed of sharps (i.e., scalpels for PT, razors for barbers and syringes for nurses) and secured each container for infectious waste disposal. Each member completed one evaluation tool per container.

After all evaluations were complete, results were tallied. Based on the majority of positive responses, the team selected three sizes of sharps containers from one company to conduct a [product] trial. The team decided the trial period would be two weeks. They evaluated the facility for areas of high frequency sharps container use. Some members readily volunteered their specific areas: Employee Health Services and Beauty & Barber Services. All members agreed other clinical units needed to be involved; therefore, three of eleven units were chosen, as well as Pharmacy Services.

The sales representative was contacted by Infection Control to request complimentary sharps containers for the clinical trial.

### LESSONS LEARNED

The [state] laws controlling product acquisition for government agencies are so strict that the process is significantly hampered; i.e., the limitations of working with vendors only on contract and sample procurement delays due to rigid internal tracking processes. Delays occurred consistently in the delivery of product or information. Timeliness of responses increased when carbon copies to chain-of-command managers were indicated on written communications. Perseverance and patience were necessary to accomplish product acquisition.

Due to the challenges -multiple calls to product vendors, taking minutes, notification to members of meetings, ordering sharps devices for use in disposal containers, arranging meeting times and places, locating product after delivery-, secretarial support is recommended.

## STAFF HOURS AND OTHER COST ISSUES

Cost issues are broken down into two areas: materials and staff hours.

Materials used for this step included computer, paper, long-distance phone calls, OSHA “Enforcement Procedures for the Occupational Exposure to Bloodborne Pathogens” Appendix B, scalpels, razors, various sizes of syringes and butterfly needles with holders.

Staff hours for screening the container are reflected in the following chart:

Type of Staff	Hours Spent on Phase III
Team Coordinators	14
Management	14
Product Users	23
Total	51

**PRODUCT EVALUATION – Sharps Disposal Container**

Date: \_\_\_\_\_ Service \_\_\_\_\_ Shift \_\_\_\_\_

Item: Sharps Disposal Container – Medication Cart

Number of times container used:     0     1-5     6-10     11-25     26-50

PLEASE CHECK THE BEST ANSWER:	YES	NO	COMMENTS
1. Container is easy to use.			
2. Container allows one-handed disposal.			
3. Sharps can go into the container without getting caught on the opening.			
4. Container provides for puncture, leak and impact resistance.			
5. Fill level is provided and current fill status is readily visible.			
6. The opening prevents sharps removal.			
7. Container cannot be overfilled.			
8. It is safe to close the container without the danger of protruding sharps.			
9. The container closes securely under all circumstances.			
10. Would you recommend purchasing this container?			
11. Is there a container you would rather use?			If Yes, name of the container: _____
12. Were you provided in-service training on this product?			If yes, who did the training? _____