

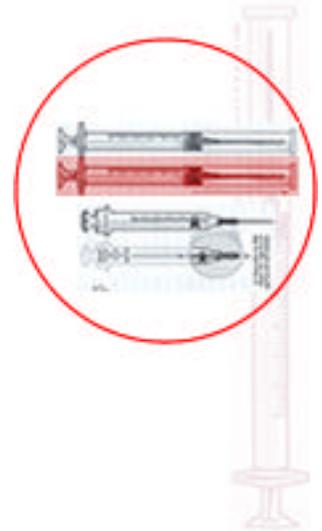
NIOSH recommends that health care facilities use safer medical devices to protect workers from needlestick and other sharps injuries. Since the passage of the Needlestick Safety and Prevention Act in 2000 and the subsequent revision of the OSHA Bloodborne Pathogen Standard, all health care facilities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



DISCLAIMER: Provision of this report by NIOSH does not constitute endorsement of the views expressed or recommendation for the use of any commercial product, commodity or service mentioned. The opinions and conclusions expressed are those of the authors and not necessarily those of NIOSH. More reports on Safer Medical Device Implementation in Health Care Settings can be found at <http://www.cdc.gov/niosh/topics/bbp/safer/>

This free-standing, not-for profit, 300+ bed hospital is accredited by JCAHO and offers acute and subacute inpatient care, including a cardiac center, cancer center, rehabilitation unit, skilled nursing facility, and residential hospice. The wide range of outpatient and community outreach programs includes home health care, hospice, adult day care, community health screenings, occupational health, and a health education center. 450 physicians on staff represent more than 20 medical specialties and the organization employs 2000+ health care workers.

Phase 5 - Implement and Monitor New Devices

Availability of New Safe Medical Device: Sharps Disposal Containers

Before we evaluated the safer sharps disposal container, we discussed its future availability with the vendor. If there had been any uncertainty regarding its availability for implementation post trial, then the device was not considered eligible for trial at that time. We asked the vendor for written confirmation regarding the availability of the device, both for a trial and for implementation.

We experienced no availability problem related to the safer sharps disposal containers that the staff selected for use in their work areas after their evaluation.

Determining Use of the Device after Implementation

The Hospital Environment of Care/Safety Committee is responsible for monitoring the employee injury/exposure rate on a monthly basis. The Sharps Taskforce reports to this committee. The following measurements are used to aid in the determination whether the safer sharps device is being used, used correctly, and used effectively:

- Number/location/type of employee injuries/exposure.
- Quarterly sharps safety rounds by members of the taskforce.
- Employee safer sharps device complaints: draft form is pending review at the next taskforce meeting; only verbal/e-mail messages and evaluation forms have been used to register complaints and concerns thus far.
- Material Management Medical-Surgical Supply Monthly Usage Reports: managers/directors routinely receive these reports for their review and action.
- Management/peer-to-peer observation.

Determining Staff Satisfaction with the Device

The staff readily communicates either satisfaction or unhappiness with the safer sharps device:

- On a daily basis or in staff meetings to their managers.
- Via phone or e-mail to members of the taskforce.
- During the periodic sharps safety rounds.

The staff went through a learning curve related to the use of the device, and in some cases, they had to relearn a safer work method in delivery of care. Change was more difficult for some staff and they required more peer-to-peer support in order to understand the direct benefit to them as a health care worker.

"What's in it for me?" both spoken and implied in conversations, was a central theme echoed throughout most of the clinical departments as they wrestled with the specific sharps issues in their practice areas.

Of greatest importance, was the removal of the non-safe sharps container from the work area as the conversion to the new device occurred. All areas of the hospital do seem to have their hidden areas to store what they consider to be back-up supplies. The manager /director was asked to provide a contact person that could ensure the removal of non-safe sharps containers.

The inventory supply usage reports from the Material Management Department are used to verify removal/usage of these non-safe sharps containers.

Determining Patient Satisfaction with a New Device

For the most part, patient satisfaction and benefits to the patient of the new, safer sharps disposal containers is neither readily apparent nor usually recognized by the person receiving care. Pertinent patient feedback regarding new devices typically takes place via product trial evaluation forms and staff device use complaints.

Historically, there had been incident reports involving used and unused sharps being found in patient beds and rooms. In some cases, injury to the patient and/or staff members had occurred as a result. Overall, because of the increase in staff awareness of sharps safety practices and the relocation of the disposal boxes away from the patient chairs and behind doors, these situations were virtually eliminated. This demonstrated that putting the right equipment in the right place at the right time resulted in safety improvement for both patients and staff.

Management Satisfaction with New Devices

As mentioned previously, employee injuries and exposures to blood/body fluids are monitored routinely by a group of direct care staff and managers to identify where injuries and exposures are continuing to occur.

Over the last few years, there has been a decrease in employee needle stick injury occurrences from (18) eighteen in 2001 to (10) in 2002. Management asked the Sharps Taskforce to present our hospital's initiative for sharps safety to the JCAHO surveyors in 2002 as reflective of the type of performance improvement program at the hospital.

Evaluating the Effectiveness of the New Device

In the Phase 4 Report, sharps safety rounds identified the number of sharps safety improvements needed, which decreased over time, and demonstrated not only increased staff awareness but also staff adaptation to the new sharps disposal containers.

The following demonstrates the outcome of the first goal of The Sharps Taskforce, to review, track, and analyze sharps injuries and blood/body fluid exposures, focusing in the devices and settings in which injuries continue to occur:

Benchmark: EPINet 1999: 30 injuries/100 beds/year

<u>Year</u>	<u># Beds</u>	<u>Projected Injuries</u>	<u>Actual Injuries</u>
1999	335	101	87
2000	339	102	52
2001	346	104	53
2002	346	104	43

This represents a 50% decline in the number of employee sharps injuries and blood/body fluid exposure over the past (4) four years and a very positive outcome for hospital staff and management.

The Lessons Learned/Advice/Different Approaches

1. Get to know the staff and their sharps safety needs, build their trust, value their opinions, and revise sharp safety approaches as necessary in order to be successful in the initiative.
2. Have managers require staff participation in sharps safety education and training and have a back-up plan for staff who cannot attend a face-to-face program.
3. Provide hands-on practice with the device for staff to become more proficient and comfortable using new devices.
4. Involve the Purchasing/Materials Management Department in the pertinent steps of the project in order to stay abreast of any device backorder situations or temporary device substitutions, which can be very disruptive to staff sharps safety performance.
5. Include the sharps safety program and work practices in hospital and department staff orientation.
6. Constantly "sell" the staff on the positive aspects of sharps safety to themselves and be sincere in your interactions and communications.
7. Create ongoing procedures related to sharps safety that will automatically maintain themselves as part of the organizational culture and work systems regardless of change in hospital staff.

Materials Used/Time Spent

Materials used: reports.

Time spent: estimate 500 hours for staff/management communications, analysis of reports, and safety rounds.