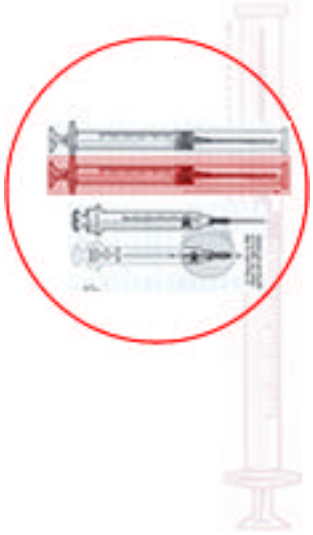
NIOSH recommends that health care facilities use safer medical devices to protect workers from needlestick and other sharps injuries. Since the passage of the Needlestick Safety and Prevention Act in 2000 and the subsequent revision of the OSHA Bloodborne Pathogen Standard, all health care facilities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



Team Phase 5: Implement and Monitor the New Devices

Facility Description:
Community, not-for-profit, Level III Trauma Center with 249 in-patient beds and 3 outpatient sites. The hospital is part of a large healthcare system. The facility employs approximately 1,100 employees, and approximately 600 physicians.

I. Where you able to obtain sufficient quantities of the new devices for implementation?

Our hospital evaluated several products as listed in the table below. Before the hospital would agree to evaluate, pilot and/or institute any product, there were extensive conversations with the vendors about the availability of the products. We asked only for a verbal confirmation from the vendors that the products would be readily available. We made it clear to the vendor that if the product was selected for implementation, the written contract would include a clause that the vendor would be able to meet supply demands.

Product	Implemented	Obtaining sufficient quantities
Sharps containers with counter balanced lids	Yes	Yes
Safety Scalpel	No	
Chemotherapy gloves	No	
Safety Needles	No	
Safety Huber Needle	Yes	Yes

2. How did you determine whether or not the devices were being used after implementation?

Materials Management assumed responsibility for the roll out of the new devices.

Item	Staff Education/ Use of Device
Sharps containers with counter balanced lids	1. The older model Sharps containers were removed from stock and replaced with the new model. There was not another product available that fit the wall mounted sharps containers. 2. Walking rounds on each floor of the hospital were assigned to different committee members to check for compliance with the new product.
Safety Huber Needles	1. The older Huber Needles were removed from stock and replaced with the new Safety Huber Needle. There was not another product available for the staff to use to access a porta cath, so they were forced to use the new ones. 2. One member of the Needle Stick Reduction Committee was assigned to drive the pilot and to solicit feedback from the staff using the product. This was relatively easy, since the majority of the porta caths are accessed in the Emergency Center or on one unit in the hospital.

3. Did you determine satisfaction with the new device among employees responsible for direct patient care?

Item	Process for evaluation	Timeframe
Sharps containers with counter balanced lids	1. Feedback from staff about the product on the product evaluation form. 2. Feedback from staff during the walking rounds. 3. Feedback from committee members at the meetings.	3 months
Safety Huber Needles	We were one of four (4) hospitals in the system evaluating safety huber needles and providing feedback to Corporate Purchasing. The	4 months

	Feedback entailed the ease of use, any complications, staff satisfaction with the product, and what kind of support the vendor had provided.	

4. **Did the process yield sufficient information to allow a determination of employee satisfaction?**

   The process provided plenty of feedback to determine satisfaction with the devices. The feedback was what prompted the committee to look at counter top sharps containers for the medication areas, so it not only provided satisfaction with the product, but gave valuable information on other areas to focus on for performance opportunities.

5. **How did you determine patient satisfaction with the new devices? Did the process provide the data necessary to determine the level of patient satisfaction?**

   The process did not allow for patient satisfaction for the new sharps containers. The patients had no idea of the change with this product. The hospital uses the largest nationally known patient satisfaction survey to measure patient satisfaction and the survey contains a question about satisfaction with the person starting your IV, but not specifically about the Huber needle. The verbal feedback from the staff using the Huber Needle states there had been no patient feedback on the Huber needle and the patients were not aware we had made a change in product.

6. **How did you determine management's satisfaction with the new device? Did the process provide the data necessary to determine the level of management satisfaction?**

   Management was satisfied with the new sharps containers, because we had solved the problem of needle sticks as a result of full and over-

full sharps containers. The hospital had experienced a 62% reduction in needle sticks from sharps containers.

7. How did you evaluate the effectiveness of the devices?

The hospital started the evaluation of safer products as a result of an increase in needle stick from full and over-full sharps containers. We continued our on going monthly review of needle sticks addressing trends and evaluating. Our first 6 month review of needle sticks revealed a 62% reduction in needle sticks from full and over-full sharps containers. The next year revealed 0% needle sticks from full and over-full sharps containers.

8. Lessons learned

Product evaluation forms are one form of evaluating a product, but they need to be short, and concise to get staff to fill them out. Paper feedback forms need to accompany verbal feedback, as staff are often willing to share information about why a product is successful or meets their needs, but they don't want to take the time to write it out in the mist of their busy day. You do not want to ignore this valuable verbal communication.

Make sure the end users of the products are included in the pilot project and allowed input into the final decision.

Educating staff on the value of implementing needle and safety devices for their own protection is invaluable in getting staff cooperation

When an opportunity for improvement is addressed and fixed, another opportunity will come to the forefront as an opportunity for improvement. The process is on going.

We outsource our laboratory services. On rounds we discovered that the lab did not order supplies through our Materials Management

Department, and were left out of the implementation. Look at all services and areas of your hospital, even those out sources and provide them with the information on the conversion of products and devices.

9. Improving the process.

Determining how much communication is adequate during a pilot project is difficult. You think that you have adequately explained the reason for the change and how the product works, but then you discover there are frequently asked questions by all involved and you realize that even after the change has been implemented, the change requires frequent follow up for a while. How long the while might be difficult to predict. In areas where staff work 24 hours a day, you must be have someone available to that staff as well.

Require the vendor to provide on going support for the product, because staff are not aware of what they don't know until they start using the product full time and the pilot project leader has gone on to something else and is not around as much. This is when the staff identify what questions they need answering or they realize they might not have received all of the education they might have needed.

10. Advice to similar facilities.

The need for vendor support does not go away after a product has been rolled out. This is when staff using the device daily really realize the questions they have and what they do and do not know about the product. Be prepared to have to revisit the education with staff.

Expect some resistance to the change and have a plan for how to sell it without making the people who are resistant to change feel that their feedback is not valued. If you can identify who the resistant staff are going to be and involve them in the change up front, then you have more

success with the change early on. Identifying who this staff is early on is not always an easy task.

11. Other relevant information about the process or problems encountered.

Change does not come easily for staff. When a change is implemented, the success of the project relies heavily on someone driving it and watching for obstacles to the project's success. It takes time for staff to un-learn and re-learn processes.

12. Estimated Time to complete Phase 5:

Explanation of Time
Working with the vendors and Materials Management staff to obtain the products
Work with the Materials Management staff on the delivery of the products to the clinical areas in the hospital and getting the products added to the par levels
Staff education
Committee member rounds
Evaluating feedback from staff
Committee meetings
Meeting with Occupational Health Nurse to evaluate for trends
Typing, minutes, sign in sheets, copying, e-mailing, distributing

Type of Staff	Time in hours
Administrative	19
Management	60
Staff (difficult to measure- staff training, feedback, questions on rounds)	500
Total	579