

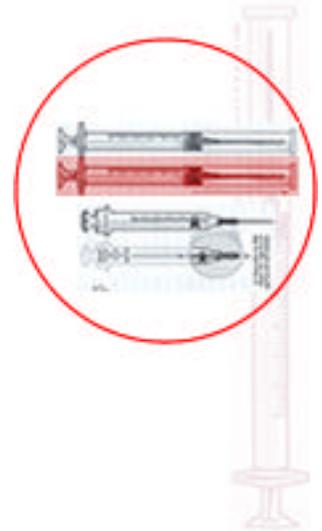
NIOSH recommends that health care facilities use safer medical devices to protect workers from needlestick and other sharps injuries. Since the passage of the Needlestick Safety and Prevention Act in 2000 and the subsequent revision of the OSHA Bloodborne Pathogen Standard, all health care facilities 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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Team Phase 4: Evaluate Safer Medical 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.

1. Describe the safer medical devices- type, department/ location where evaluated, staff who evaluated the product.

Our hospital evaluated several products.

| Product | Location | Staff | Implemented |
|--|---|---|-------------|
| Sharps containers with counter balanced lids | 3 rd floor | Environmental Services staff, and Staff Nurses | Yes |
| Safety Scalpel | Operating room, and Emergency Center | Physicians | No |
| Chemotherapy gloves | Oncology Unit and Pharmacy IV Room | Staff Nurses, and Pharmacist | No |
| Safety Needles | Committee Evaluation | Staff Nurses, and Clinical Educators | No |
| Safety Huber Needle | Emergency Department, and Oncology Unit | Staff Nurses, and Emergency Center staff nurses | Yes |

2. Describe the staff training on the devices.

| Item | Staff Education |
|--|--|
| Sharps containers with counter balanced lids | <p>The staff were accustomed to using sharps containers already. The only change was the lid of the container, which now had a counter balanced lid. Staff education was easily accomplished through the Needle Stick Reduction Committee and Clinical Education, who had been trained by the vendor representative. The vendor representative was willing to provide staff education and came to the hospital numerous times to follow up on the implementation of the product.</p> |
| Safety Scalpel | <p>The vendor representative educated the Director of the Perioperative Services, who in turn educated the surgeons. The Emergency Room Staff nurse representative on the committee trained the Emergency Medicine physicians. The vendor representative offered to provide training, if needed, and made follow up visits to the hospital.</p> |
| Chemo-therapy gloves | <p>The pharmacy staff and the Oncology staff already used chemotherapy drugs for mixing and administering antineoplastic medication. The vendor representative providing the product was available if needed and made several visits to the hospital.</p> |
| Safety Huber Needles | <p>The vendor representative provided staff education to the staff on all shifts. It was coordinated through the Education Department. The staff trainer made department rounds and trained at the change of shift. The training was quick and easy, as staff had been using Huber needles, and the training focused on activation of the safety features.</p> |
| Safety Needle | <p>Two (2) different vendors presented information on their products to the committee. The products were very similar in style and function. The product was not selected to pilot in the hospital.</p> |

3. Describe the process used to evaluate the device and timeframe for this process.

| Item | Process for evaluation | Time-frame |
|--|---|------------|
| Sharps containers with counter balanced lids | Feedback from staff about the product on the product evaluation form. | 3 months |
| Safety Scalpel | Feedback on the product evaluation form from the physicians in the Operating Room and in the Emergency Center. Staff nurse representatives on the committee provided verbal feedback as well. | 1.5 months |
| Chemotherapy gloves | Staff nurse feedback and pharmacist feedback on the product evaluation form. | 5 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 Feedback entailed the ease of use, any complications, staff satisfaction with the product, and what kind of support the vendor had provided. | 4 months |
| Safety Needle | The system had entered into a group purchasing agreement with a vendor to supply safety needles for the system. At the time of the agreement, this particular company had more options for safety needles than any other vendor. Other vendors have caught up with the number of available products and the technology has improved and been refined. While the hospital preferred the technology of the newer products, the hospital usage of this product could not afford the hospital the opportunity to be competitive in price with the system pricing agreement. | 0 months |

4. List the criteria and measures used in the device evaluation and how it was collected and analyzed.

| Criteria & Measure | How collected & evaluated |
|--|--|
| 1. Did the product provide a safety initiative not already in use? 2. Ease of use 3. How positive was the feedback? 4. How cooperative was the vendor? 5. Did staff embrace the product? | Product evaluation forms were collected by committee members from the assigned area. Follow up with the staff for verbal feedback was performed by a second committee member. |

5. Did the evaluation process provide sufficient information to determine the effectiveness of the device and whether to continue its use?

The feedback was useful in determining which products to implement, but the feedback was both in the form of writing and verbal. Do not rely on product evaluation forms unless someone is constantly staying on top of collecting them and maintaining contact with the product evaluators.

6. Did you determine whether or not the device was used as planned? Where there any problems getting employees to use the device?

Three (3) different sharps containers were selected for the hospital. One had a counter balanced lid for the wall mounted sharps containers, one was for rolling carts sitting on the floor, and the third one was a counter top model for use in the medication room. The counter tops had a holder to keep them from tipping over. Staff were putting the containers with the counter balanced lid on the counters, instead of the flat bottom one to go in the holder. For the first few months, this required constant supervision and re-education of staff.

7. 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 any verbal feedback offered by staff.

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.

8. Improving the process.

Before implementing any changes, thoroughly evaluate available products and pilot the product long enough to get thorough evaluations of the products.

Provide the company representatives with an honest assessment of the safer device based on product evaluation feedback.

Pilot a product in more than one area, if the product can be useful in multiple areas.

Determining how much communication is adequate during a pilot project is difficult. Catching staff on all shifts and weekends is challenging. Unit level management support is vital for pilot projects to succeed.

Communication with unit level management about the pilot and their role is important. If you discover barriers to the success of a pilot, address them early.

Communicate in such a way that staff can evaluate what is in it for them, so that they willingly want to embrace the new device.

When problems are identified in an area of the facility with the devices, go to the area and have a face to face conversation with the staff involved. Often the problem can be resolved quickly and prevent possible exposures placing staff unnecessarily at risk.

9. Advice to similar facilities.

Carefully consider the optimal places to evaluate products, to set pilot projects up for success and to obtain reliable feedback.

Assign a pilot project champion for each pilot. The success or failure of a pilot project depends on someone supervising, someone available to answer questions and obtaining feedback on the product.

Require vendors to make frequent visits to follow up on questions and support the staff during pilot projects. Food is a great motivator to get staff involved, so have the vendors bring donuts, lunch, cookies, etc. to prompt the staff to engage in the project. Make sure the vendor is clear that the food is not a bribe in exchange for favorable feedback about the product.

Unless there is an employee whose only job is to manage pilot projects, I would recommend performing only one pilot project at a time. It takes a tremendous amount of time and energy to manage a pilot project. While our facility piloted numerous things, we only had one occasion where we were piloting two (2) items at one time; the sharps containers with the counter balanced lid and the chemotherapy gloves. I performed both pilots on the same unit, which I manage, so it was easier for me to drive the pilot. I also have supportive Clinical Managers on all shifts to assist me with pilot projects. Examine available resources prior to the consideration for piloting more than one item at a time.

If a facility is considering piloting more than one product, I would recommend having it in two separate areas, and with two separate people overseeing the projects.

10. Role of the sharps injury prevention team in the process.

The Needle Stick Reduction Committee found the products to be evaluated for a possible pilot project. The Committee Chair worked with the Materials Management Director to arrange for the vendor representatives to come to the committee meetings. Staff nurses assigned to the committees followed up on pilot projects in their areas and brought back the feedback to the committee. The committee obtained all of the information on the pilot projects for the committee meetings. The Committee Chair followed up with the vendor representatives on feedback from the product pilots. Once a decision was made about the product, it was communicated to the Materials Management Director for his follow up by the Committee Chair. The committee worked with Clinical Education on poster presentations, and staff awareness of product evaluations and changes. The committee chair obtained pricing information on all products.

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 4:

| Explanation of Time |
|--------------------------------------|
| Initial review of available products |
| Internet search |
| Literature review |

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|--|
| Committee meetings |
| Meeting with Occupational Health Nurse to evaluate for trends |
| Meeting with Director of Materials Management on available products, vendors and company contact information |
| Committee product evaluation |
| Typing, minutes, sign in sheets, copying, e-mailing, distributing |

| Type of Staff | Time in hours |
|----------------------|----------------------|
| Administrative | 19 |
| Management | 40.5 |
| Staff | 28 |
| Total | 87.5 |