

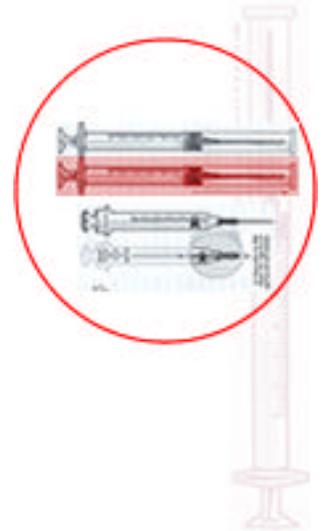
NIOSH recommends that health care facilities use safer medical devices to protect workers from needlestick and other sharps injuries. Since the passage of the Needlestick Safety and Prevention Act in 2000 and the subsequent revision of the OSHA Bloodborne Pathogen Standard, all health care facilities 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 5 – Implement and Monitor the New Device**

### **Facility Background**

We represent a small Home Health Agency, characterized by a daily average census of 25 patients. Our patient population is primarily geriatric. This agency is Medicare and Medicaid certified. Our Medicare license is for one county. We have a multi-cultural work force, consisting of 11 employees. One fulltime RN case manager, one RN on call, one Physical Therapist, two Occupational Therapists, two Home Health Aides (one does primarily office billing, referral coordination etc.). The Medical Social Worker, and Dietician are shared staff with the parent company and work out of their offices. The agency contracts for a Speech Language Pathologist staff as needed. The home health agency office is located on the administrative floor of a skilled nursing facility. The skilled nursing facility is our parent company. The home health agency utilizes the parent company for supply management and other additional support.

### **Obtaining the Device and Supplies**

The sharps injury prevention team chose an anticoagulation machine with a safety lancet. This decision was based on the ability to use a safety lancet instead of a full venous blood draw; this led to decreased needle exposure to the patient and to the staff, smaller sharps that retracted for disposal, and fewer other blood-contaminated supplies. Other considerations included ease of use, transportability, and approval under a certificate of waiver per the state Administrative Codes. Additional staff benefits included obtaining lab results, and being able to call the physician and obtain orders during one skilled nursing visit.

Our agency had purchased the anticoagulation machine for the evaluation phase. This created a seamless flow from evaluation into implementation. Sufficient quantities of supplies were then ordered to create a surplus in the supply room. The test strips needed to be refrigerated. Initially, we used a refrigerator that was located in the locked medication room of the skilled nursing facility. This room was located on a floor above our office. This was found to be inconvenient, so I purchased a mini refrigerator for the office.

### **Monitoring Usage**

The safety lancet and anticoagulation machine were used willingly by staff. This was evidenced through staffing assignments, a log kept for electronic control testing, and through direct observation of the machine being checked out. All staff were willing to have assignments utilizing this procedure. This created less juggling of schedules and enabled us to keep staff patient assignments limited to smaller geographical areas.

I could see from my desk the machine checked out each day and would hear verbal reports from the staff. In addition staff kept me briefed on ordering new supplies through

the supply coordinator in the skilled nursing facility. I believe appropriate usage of the safety lancet and the anticoagulation machine was influenced by high staff satisfaction.

### **Monitoring Satisfaction**

Through direct observation I noted that staff satisfaction was high. Nurses took it upon themselves to coordinate their visits and time of use for the machine with other staff. Staff reported they felt more confident using the safety lancet and anticoagulation machine and that the device increased their overall job satisfaction. I was able to speak directly with each staff member using the machine. Having everyone's input I felt confident that I had sufficient information to base employee satisfaction on.

I evaluated patient satisfaction through two methods of communication. Staff reported on patient satisfaction with the new device. Many patients had bruises in their antecubital areas from lab draws and were highly impressed with the sophisticated machinery, the safety of the lab draw and efficiency of obtaining new orders. The agency does a mailed patient satisfaction survey to discharged patients quarterly. Overall scores continued to be high and there were no written responses regarding the safety lancet and coagulation machine.

As representing management on the sharps injury prevention team, I had had been involved every step of the way and was very pleased with the process and success of the safety lancets and anticoagulation machine. This type of blood draw saved the nurses over an hour of time and at least 30 miles of driving his/her vehicle per lab draw. The time was saved through elimination of turning in the blood sample to an area lab, checking back later for results, obtaining orders, and notifying the patient. This whole process now occurs in the patient's home during the skilled nursing visit.

### **Lessons learned and Recommendations**

I had not anticipated the effect of needing to refrigerate the test strips of the machine, where the refrigerator was located, and convenience to staff. The refrigerator we initially used was located, as previously mentioned, on an above floor, but it was also in a locked medication room. This required staff to borrow the med room keys from the floor charge nurse each time we needed access.

The agency encountered a unique temperature problem for home health. During the summer, the temperature of the vehicles affected the anticoagulation machine. We had to replace a cracked component inside the machine. The crack was caused by exposure to heat. The machine would display a temp sign and required to cool before resuming operations.

The success of the process and result of implementing a safer medical device was noticed in the skilled nursing facility. They have utilized it and have purchased their own safety lancets and machine.

Table of hours for Implementing and monitoring the new device

<b>Type of Staff</b>	<b>Hours</b>
Administrative / Management	6
Clinical	6