

Methodist Medical Center improves worker, environmental safety with reusable sharps containers

Sharps disposal containers have been associated with as much as 13 percent of total sharps injuries inside hospitals; moreover, the plethora of disposable sharps containers in hospitals can have a dramatic and negative environmental impact because some of the plastic components release toxins when incinerated and many are not biodegradable.

Many hospitals have taken steps in greening their red bag waste streams by successfully transitioning to reusable sharps containers, increasing worker and environmental safety at the same time.

One recent study, for example, found that a reusable sharps containment system was associated with an 86.8 percent reduction of container-related sharps injuries and a 32.6 percent reduction in total sharps injuries and proved to be an effective engineered control in reducing such incidents. (Source: *Journal of hospital Infection* 2003; 54 (03):232-238.)

In most cases, reusable sharps container systems are switched out, reprocessed and returned to a hospital by the supplier.

In July 2005, Methodist Medical Center of Illinois, Peoria, IL, transitioned to a reusable sharps container system, a plan that has yielded a host of positive results, according to Rob Folck, manager of environmental services.

Folck said the transition was fueled largely by safety considerations. “Disposable containers were often overfilled and created a window for potential work related sharp injury,” he said.

Methodist’s environmental services, purchasing and infection departments first conducted extensive research into several disposable sharps container programs, said Folck. After selecting the container, Folck and his team conducted a 30-day test program in several areas “and results were extremely positive.

“The supplier’s container's passive overflow protection all but eliminated opportunities for sharps-related injuries,” Folck said. “The plastic from the disposable containers is a huge environmental issue; now, that plastic no longer gets into our waste stream.”

OSHA advises facilities wishing to switch to reusable sharps container to evaluate the quality and reliability of the prospective supplier’s processes used to transport and reprocess the containers. When Folck’s team conducted a site visit of the container supplier, they were satisfied. “The containers are emptied by an automated system and the contents are photographed should a customer want to verify what waste is being discarded or confirm if a valuable was inadvertently thrown away,” Folck said. Containers are washed and disinfected several times, marks on surfaces are hand buffed out and all are deodorized. Containers are delivered in totes, “all of which are clean and have a pleasing fragrance when opened,” he added.

Folck added that Methodist’s house wide transition to the new system “went very smoothly, with the supplier’s staff performing all installations and staff education.”

Other documented successes

A number of hospitals participating in the California Department of Health Services' Hospital Pollution Prevention Program have documented similar successes. In its recent report, "Greening of the Red-Bag Waste Stream: Successful Interventions to Reduce Medical Waste Generation In California Hospitals," the department noted that transitioning to reusable sharps containers are "interventions that can be made within the hospital setting to reduce the generation of medical waste, thus protecting the community and improving or greening the environment. Additionally, these interventions can produce substantial savings for the hospital and at least one can increase worker safety through its implementation. (For more information, see the report at <http://www.premierinc.com/quality-safety/tools-services/safety/topics/needlestick/downloads/green-redbag-waste.pdf>.)

In a guide prepared to educate other hospitals, the department suggests the following steps in implementing a reusable sharps container program:

- Gather data on the number, types and weights of single-use sharps containers used at the hospital annually. Calculate the reduction in the medical waste stream that would be achieved by implementing a reusable sharps container program.
- Contact companies that provide reusable sharps container programs and obtain cost information and quotes for implementing a program.
- Implement a reusable sharps container program if economically feasible.
- Document any reductions in needle stick injuries, medical wastes generated and cost savings.

OSHA guidelines

OSHA has deemed it acceptable to reuse sharps containers as long as they have received 510K clearance from the Food and Drug Administration and comply with the agency's Bloodborne Pathogen Standard. There are similar requirements from both FDA and OSHA for sharps disposal containers, including that they be:

- Closable, puncture resistant, leak proof;
- Appropriately labeled and color-coded;
- Designed with an opening that is large enough to accommodate disposal of an entire blood collection assembly (i.e., blood tube holder and needle);
- Easily accessible to the immediate area where sharps are used; and
- Easily portable if employees travel from one location to another.

For additional information on reusable sharps disposal containers, see the Premier Safety Institute resources at <http://www.premierinc.com/quality-safety/tools-services/safety/topics/needlestick/reusable.jsp>.

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