28% Waste Reduction with Sharpsmart Safety Device

– a 5 year, 103 Hospital Study

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Introduction

- *The 1998 EPA-AHA Agreement requires hospitals to reduce waste stream 50% by 2010*
- *Hospitals need new initiatives to meet this goal*
- *Disposable sharps containers:*
  - add plastic to sharps waste stream.
  - add cardboard waste.

We examined impact of replacing disposable containers with a larger, reusable sharps containment device.

Methods

103 hospitals using disposable sharps containers gave us their data.

We calculated:

- tons disposable sharps containers used.
- tons cardboard waste

Using Sharpsmart reusable device, we determined:

- reduction in plastic waste
- reduction in collectors exchanged

Figure 1.
Reusable sharps containment device (Sharpsmart, Daniels Sharpsmart Inc. Chicago IL.)

Results - 103 Hospitals

Waste Generated

Disposable containers

- *4.7 million lbs sharps (excl containers)*
- *1.1 million sharps containers*
- *1.6 million lbs plastic – just containers!*
- *0.2 million lbs cardboard*

Reusable system

- *4.7 million lbs sharps*
- *nil plastic; nil cardboard*

Waste reduction with Reusable

1.8 million lbs

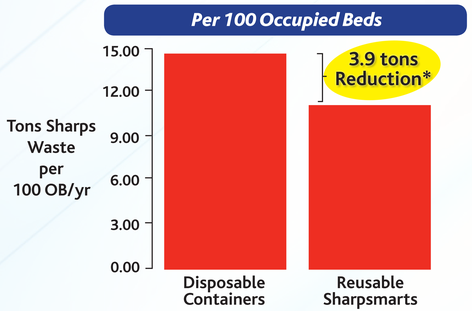

Figure 2.
Annual tonnage generated by sharps waste stream per 100 Occupied beds

*$p < 0.0001$; RR = 0.73; CL = 0.72-0.74

Workload

Disposable containers

- *1.1 million sharps containers changed out*

Reusable system

- *0.5 million container changed out*

Workload reduction with Reusable

600,000 less containers

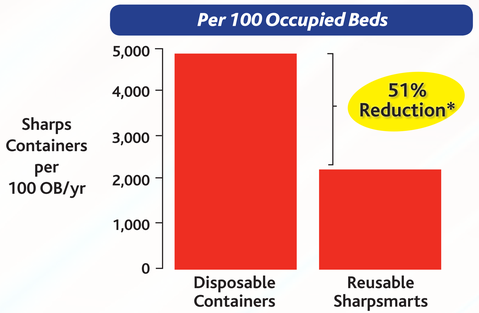

Figure 3.
Annual sharps containers changed out per 100 Occupied beds

*$p < 0.0001$; RR = 0.49; CL = 0.48-0.51

Conclusion

The reusable device

- *Is rare among safety devices – it's reusable*
- *Is a simple, easily implemented system helping HCF meet waste reduction goals*
- *Reduces staff resources needed to change-out sharps containers*

By the way, did we say the reusable device also significantly reduces Sharps Injuries. But that's another Study.[1]

1. Bylund S, Fink R, Grimmond T, Anglea C, Beeke L, Callahan A, Christiansen E, Flewelling K, McIntosh K, Richter K, Vitale M. Reduction of Sharps Injuries with a Reusable Sharps Containment Safety Device – a study of 28 hospitals. APIC Conference June 2009.

Acknowledgements

We thank all the hospitals who supplied their data.

For Further Information

Please contact tgrimmond@danielsinternational.com.

For PDF of Poster go to www.danielsinternational.com (and click on "Resources")

See Exhibit 403 in right corner of Exhibit Hall