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## **SHARPS INJURY REDUCTION USING THE SHARPSMART REUSABLE SHARPS MANAGEMENT SYSTEM**

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### **SUMMARY**

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**OBJECTIVE:** To determine the effect on Sharps Injury (SI) of the Sharpsmart reusable sharps containment system.

**DESIGN:** SI data was examined for 12 months prior to, and for up to 16 months during Sharpsmart use. Using EPINet criteria, details on all reported SI were tabulated and collated. The following parameters were examined: SI, Container Related SI (CRSI), and Non-CRSI, per 100 occupied beds (OB) per year and per 100 Full Time Equivalent staff (FTE) per year. Details were also collated on each CRSI.

**SETTING:** Completed in 2001, the study involved eight acute-care hospitals ranging in size from 150 to 850 beds in Australia, New Zealand and Scotland.

#### **RESULTS:**

##### **Impact of Sharpsmart System on Sharps Injury Rates**

Parameter (per year)	Before Sharpsmarts	With Sharpsmarts	% Difference	p value
Total SI/100 OB	20.3	13.6	fell 32.7%	0.002
Total SI/100 FTE	4.3	3.0	fell 32.1%	0.002
CRSI/100 OB	2.3	0.3	fell 86.8%	0.012
CRSI/100 FTE	0.5	0.07	fell 86.6%	0.011
Non-CRSI/100 OB	18.0	13.3	fell 25.7%	0.003
Non-CRSI/100 FTE	3.9	2.9	fell 25.0%	0.006

#### **CONCLUSIONS:**

The use of the Sharpsmart sharps management system resulted in a significant reduction in Total SI, Non-Container Related SI and Container Related SI in the acute care hospitals studied. It is postulated that the System's advanced safety features, high profile, multiple mounting options, correct placement, and institution-wide education brought about the behavioural change through an ecosystemic effect. The System offers a cost-effective means of significantly reducing SI.