Comparing traditional patient reusable receptacles with single–use disposables



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BACKGROUND

NUH has robust MRSA and Hand Hygiene Programs aimed at reducing hospital acquired infections (HAIs) . We are however experiencing increasing trends in other significant HAIs caused by multi-drug resistant organisms (MDROs). Specifically, we refer to the spore forming organisms i.e. *Clostridium difficile* and *Bacillus cereus*.

Evidence-based literature reports that the environment is a significant contributor to HAIs.¹⁻³ We needed to expand our efforts to escalate attention on environmental cleaning including reviewing the re-use and sharing of receptacles (commode pans, bedpans and urinal bottles). These pathogens can increase the risk of infection to patients via reusable receptacles that have not been processed adequately.

Existing ward bedpan sanitizers do not provide adequate conditions for killing spores, because they cannot achieve the necessary thermal killing conditions.

Furthermore, complaints about the odour in dirty utilities were common place due to "queuing" of used items. However before our hospital could make the enormous commitment to change systems it was important to undertake a critical analysis.

AIM

To assess the potential benefits of a system of single use items to eliminate the need to share and reuse. Specifically considering productivity gains, prevention infection, cost and acceptance.

METHODOLOGY

During October & November 2012, NUH trialed a disposable single-use system to understand user challenges and acceptance. The trial was conducted across 4 wards; a Medical ward, an Oncology Ward, the Cardiothoracic Intensive Care Unit and the Emergency Department.

A survey was conducted to receive user feedback and comments (Table 1). Based on user feedback, a proposal for implementation was developed and submitted to the NUH executive board. Patients were also interviewed by staff.

Calculations were made to consider time of nurses and housekeepers in supporting the activities related to the 2 systems, water and power consumption

Photo 1: Old traditional Bedpan Sanitiser



Photo 2: Single - use disposable technology (used in the pilot)



RESULTS

Table 1: Nurses Feedback Results

Question	Percentage of respondents in agreement (n=172)
Training was comprehensive	99%
Installation process was satisfactory	95%
Likelihood that the system will save time therefore giving more time for the patient	92%
Likelihood that the disposable system could help reduce the risk of cross infection	99%
Preference for the disposable system to the previous reusable system	91%
Interest to continue using the new disposable system	90%



CONCLUSION

Based on the overwhelming positive results from the pilot trial, NUH replaced 47 bedpan sanitizer units across 41 inpatient areas during January–March 2014.

We will continue to review financial and labour savings, patient satisfaction and infection control benefits to ensure optimal results and impact hospitalwide.

References

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