

The Effectiveness of a Dedicated Cleaning Team Post Discharge: A Reduction of Positive Environments

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Introduction

Multi-resistant organisms (MRO) can facilitate the spread of health care-associated infections through environmental contamination². Pathogens such as Vancomycin Resistant Enterococci (VRE) can survive on surfaces for months, being a potential source of transmission for health care associated infections⁴. Healthcare associated infection caused by VRE increase a patient's risk of mortality, lengthen their hospital stay and have financial impact on the hospital³. The Royal Brisbane and Women's Hospital (RBWH) is Queensland's largest hospital with approx 1000 beds and provides care in an extensive range of areas including specialist cancer care, maternity, trauma and burns. During a 6 month period at RBWH there was 394 discharges of patients with VRE. Effective environmental cleaning, both routine and discharge, is a key strategy in an infection prevention program¹.

Background

Historically at RBWH nurses have been responsible for cleaning beds after a patient discharge, but this practice removes nurses from patient focused care and is often rushed in the contemporary busy nursing environment. The Patient Support Officer's (PSOs), in addition to other daily responsibilities are required to clean the patient's environment upon discharge. This practice means that cleaning is interrupted by other tasks that need to be prioritised by both nursing and PSOs. The admission of patients into an environment potentially contaminated with MROs such as VRE poses an increased risk to patient safety and may adversely impact on patient outcomes⁵.

The Infection Monitoring and Prevention Service (IMPS) at RBWH instituted a surveillance process to measure the effectiveness of this current cleaning practice following patient discharge, with the aim of improving quality and patient safety.

Method

- VRE environmental surveillance was conducted on all VRE patient discharges at RBWH over a 6-month period from 1/2/14 to 31/7/14.
- Swabs were collected from the bed, mattress, bedrails, call buzzer, chairs, the bathroom, any shared equipment and all high touch surfaces.
- Swabs were enriched in a VRE broth which was processed through our Pathology Queensland Laboratory at RBWH with results available within 4 days.
- 277 cleans were undertaken.
- 41(14.8%) yielded a positive environment pathology result.
- Beds resulting in a positive environment were not closed, environments were re-cleaned and reswabbed.

Implementation

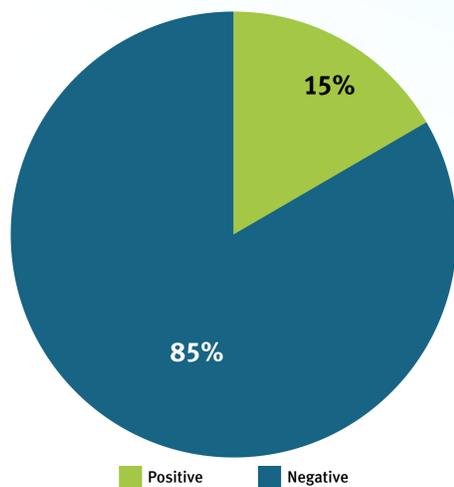
- Following these results – a group of PSOs were given education and training by the PSO Training co-ordinator to effectively and efficiently clean patient rooms on discharge.
- In February 2015, RBWH launched the Yellow Clean Team (YCT).
- The YCT is a group of trained PSOs dedicated to undertake uninterrupted discharge cleans when the patient has been on Transmission Based Precautions.
- Priority is given to VRE environments.

Results

- VRE environmental surveillance was conducted after each VRE yellow clean which was undertaken by the YCT over a 6 month period from 16/2/15 to 9/7/15.
- Swabs were collected from the bed, mattress, bedrails, call buzzer, chairs, the bathroom, any shared equipment and all high touch surfaces.
- Swabs were enriched in a VRE broth which was processed through our Pathology Queensland Laboratory at RBWH with results available within 4 days.
- 394 cleans were undertaken by the YCT.
- 10 (2.5%) environments returned VRE positive pathology attributed to the YCT.
- Decrease in positive environments from 14.8% to 2.5%.

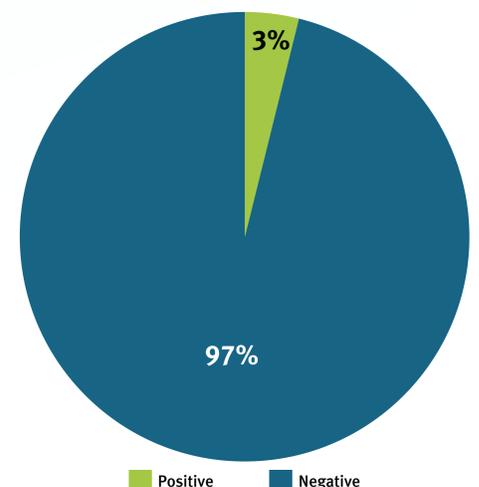
Before

VRE Environmental Screening Before YCT



After

VRE Environmental Screening After YCT



Conclusion

As demonstrated a dedicated cleaning team can efficiently and effectively achieve a high standard of environmental decontamination reducing the potential risk of health care associated infections. This supports nursing staff to deliver a high standard of patient focused care whilst facilitating patient support officers to follow their duty requirements. The Yellow Clean Team is now integrated as standard practice at RBWH for all discharge cleans where the patient has been on Transmission Based Precautions. Ongoing quality assurance is undertaken on a monthly basis to ensure that effective cleaning practices are maintained with results fed back to clinical areas.

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Patient Support Officers of the YCT RBWH

Pathology Queensland RBWH

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