IMPLEMENTATION OF A 'RED AND GREEN' CLEANING PROGRAM FOR ISOLATION ROOM DISCHARGES

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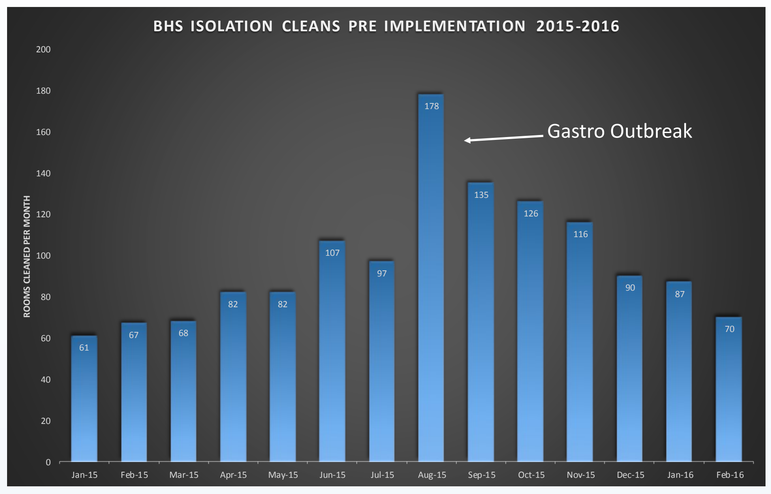
Introduction

The introduction of the National Safety and Quality Health Service Standards in 2012, and an escalating number of isolation room cleans prompted Infection Prevention and Control (IPaC) to review its isolation room cleaning program, and found a major review of both practice and product was warranted.



Method

The review of the isolation room discharge cleaning program was completed utilising a SWOT analysis (Strengths, Weaknesses, Opportunities and Threats) to assess areas for improvement.

Focus groups were also held with key people involved in the cleaning process to discuss what works and what does not. It was found that multiple staff members are involved in the cleaning process, leaving rooms at risk of not being adequately cleaned, but staff being put at risk , as well as prolonging the time it takes to clean them:

Staff Member	Duties
Nurse / Ward Assistant	"Strip" the room
Environmental Services	Clean: Floors, walls and bathroom / en-suite.
Ward Assistant	Clean: Bed, bedside locker, then makes bed for next patient

Within the current cleaning program, all patients in isolation had their rooms "terminally cleaned", with no differentiation made between the infectious organism, the length of time the patient spend in the room, and also if the patient was symptomatic whilst an inpatient or not.

We put the question out on the Australian College of infection Prevention and Control (ACIPC) blog to ascertain what other facilities did for their isolation room cleans. Consequently we received a large number of responses from a wide variety of facilities throughout Australia. This information was then compared against current literature.

It became apparent during our research that we would need to move towards a tiered system for cleaning, indicating two different processes based on the organism or suspected organism involved, and a change of cleaning product in order to accommodate this. We colour coded these processes to be a "Red Clean" or a "Green Clean".

These cleaning processes were then made into procedural checklists to be completed by the staff member performing the cleaning. This had several functions: ensuring that all cleaning was being performed, that there would be the ability to check who had performed the cleaning, and the length of time taken to perform this.

BALLARAT HEALTH SERVICES CLEANING CHART-Isolation Discharge Clean

This chart is a guide to the cleaning within the healthcare environment. To determine the appropriate cleaning required each situation should be risk assessed by clinical staff according to the confirmed or suspected organisms and the length of admission. Following a risk assessment a higher level of cleaning than outlined on the chart may be indicated.

	ADMISSION: >24 HOURS						ADMISSION: <24 HOURS
	DISCHARGE CLEAN						DISCHARGE CLEAN
	TYPE OF CLEAN	PRODUCT TO BE USED	ORGANISMS CONFIRMED OR SUSPECTED	CHANGE CURTAINS	STAFF RESPONSIBLE	DAILY CLEAN OF ROOM AND BATHROOM	
TRANSMISSION BASED PRECAUTIONS	RED CLEAN	Actichlor Plus	**Gastroenteritis** that might be **Clostridium difficile (CDI) or Norovirus. Measles, (Ebola) Viral Haemorrhagic fever, (MERS) Middle eastern respiratory syndrome. CPE, CRE.** During an outbreak	Yes if not disposable.	Environmental Services (ES)	Actichlor Plus, disposable cleaning cloths, disposable mop head.	**Environmental Services will complete a 'RED' clean If your patient has been admitted for less than 24 hours with CDI, Norovirus or undiagnosed gastro but ONLY** if symptoms were active in the department. **Ward Assistant / PSA's will complete a 'standard room' clean If your patient has been admitted for less than 24 hours with CDI, Norovirus or undiagnosed gastro but ONLY** if symptoms were **NOT** active in the department. All other 'RED' cleans will be completed by Environmental Services.
	GREEN CLEAN	Clinell wipes Detergent/warm water for the floor.	**(MROs) Multi-resistant Organisms, MRSA, VRE, MRGN, Influenza, Chickenpox, TB, Scabies, and other organisms requiring transmission based precautions (eg Shingles, Meningitis, Bronchiolitis, Pertussis)**	Yes if visibly soiled.	Environmental Services (ES)	Clinell wipes and detergent and warm water on the floor.	**Ward Assistant / PSA's will complete 'standard room discharge' clean If your patient has been admitted for less than 24 hours.** **Environmental services will complete a 'GREEN' clean if the patient has been in transmission based precautions for a multi resistant organism (MRO).**

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In order to implement this system, an education program was commenced for environmental services staff, as well as support staff including ward assistants and nursing staff, with a train the trainer program utilised to train key environmental services staff. For some environmental services staff members, this was the first formal education session on their core role, that of cleaning.

With the new program being implemented, we then investigated methods of evaluating the cleanliness of the environment. The CDC (2010) discuss several options for evaluating environmental cleaning, and discuss 5 main ways of evaluating the cleaning standard.

These being:

- Direct Observation
- Swab cultures
- Agar slides
- Fluorescent gels / powder and lotions, and
- ATP Bioluminescence.

In looking at the pros and cons of these methods, we decided on adopting a visual inspection audit tool and UV gel. The reasoning behind this, is that it is simple, and easy to use, the UV gel dries, and becomes invisible to the naked eye, and is abrasion resistant, therefore if it is manually removed, then this will indicate effective cleaning of the surface.

We determined that only staff who had undergone training in using the UV gel should perform these assessments, and that only set points would be assessed as stipulated on the audit chart. When areas have not been adequately cleaned, this is then fed back to the staff member who performed the clean, so they could go back and re-clean those areas to ensure that the room is suitable for the next occupant.

As a method of positive feedback, those staff members who have achieved 100% in their cleaning, are having their names and photos hung on a achievement board in the environmental services office area.

Results

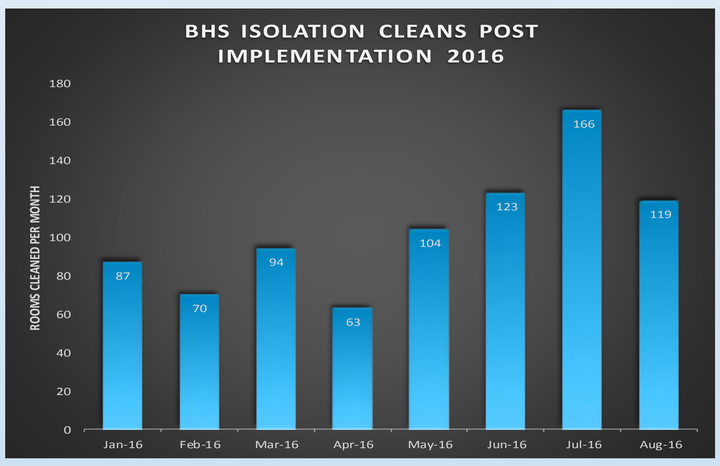
Prior to the revised program being implemented, there were up to 178 isolation cleans occurring each month (mean 94). Post implementation, there was an initial decrease of 30% however, this has increased to pre implementation numbers, potentially due to a number of outbreaks occurring within the region.

Utilising UV gel as part our visual inspection audit has improved cleaning compliance from 40% to an average of 80%. This has prompted further training for our Environmental Service Staff and the implementation of a Environmental Services supervisor role.

Conclusion

Since the implementation of the revised isolation room discharge cleaning program, it has been embraced by all staff and is now to be introduced to other areas of the health service. It was important to give ownership of this project to the cleaning staff and once they knew why they were cleaning and how to clean it provided them with an improved understanding of the role the environment plays in the transference of infection.

It has also been found with the heightened awareness amongst nursing staff regarding the importance of environmental cleaning and the impact that the environment plays in the transmission of infection; that patients are being identified early, and placed into transmission based precautions. With increased patients being in transmission based precautions, there are more rooms requiring isolation cleaning.



Limitations

It was found to be difficult to have Environmental Services staff released to attend education sessions. For most, it was their first formal education session on cleaning, and some staff were found to lack basic literacy.

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