

## **Project Title**

Reduce Contamination of Sterile Hand Towels in the Operating Theatre

## **Project Lead and Members**

Project lead: Dr. Renita Sirisena

Project members: SNM Joanna Tan, SNM Joyce Ong, SSN Linda Lee, SN Fung Wood Yan and SN Huang Chunwen

## **Organisation(s) Involved**

Ng Teng Fong General Hospital

## **Aims**

This project aims to reduce the incidence of the packaging contaminating the hand towels by providing clips for the surgeon/nurse to clip the sides of the packaging to the trolley before scrubbing

## **Background**

See poster appended/below

## **Methods**

See poster appended/below

## **Results**

See poster appended/below

## **Lessons Learnt**

The plastic clips are a simple and cost-effective solution to prevent contamination of the sterile hand towels and reduce the risk of surgical site infection

## **Conclusion**

See poster appended/below

**Project Category**

Care & Process Redesign

**Keywords**

Ng Teng Fong General Hospital, Care & Process Redesign, Quality Improvement, Sterile Hand Towel

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# REDUCE CONTAMINATION OF STERILE HAND TOWELS IN THE OPERATING THEATRE

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- SAFETY
- PRODUCTIVITY
- PATIENT EXPERIENCE
- QUALITY
- VALUE

## Define Problem/Set Aim

### Opportunity for Improvement

Sterile hand towels are used to dry hands after scrubbing for surgery. The towels are opened before the surgeon/ nurse scrubs up. Drafts (air current) caused by the opening and closing of scrub room doors may cause the packaging to fold over and contaminate the sterile hand towels. Using contaminated towels may also lead to surgical site infection.

### Aim

This project aims to reduce the incidence of the packaging contaminating the hand towels by providing clips for the surgeon/nurse to clip the sides of the packaging to the trolley before scrubbing.

## Establish Measures

The cost of one packet of sterile hand towel is \$0.99.

## Analyse Problem

For each surgery, there will be a minimum of three packets of sterile hand towels used; for the surgeon, assistant, and scrub nurse. This translates to  $\$0.99 \times 3 = \$2.97$  cost incurred per case for sterile hand towels.

When the sterile hand towels are contaminated, a new packet of sterile hand towels must be opened. This is to maintain the standard of sterility in the operating theatre and to prevent surgical site infection.

- In the month of May 2019, 53 surgeries were performed in Operating Room 15.
- Minimum total cost of sterile hand towels:  $\$2.97 \times 53 = \$157.41$
- Half of all the cases required an extra hand towel.  
53/2 cases x \$0.99 = \$26.20 extra cost was incurred.

This extra cost of \$26.20 per month due to opening of extra hand towels could have been avoided if contamination of the hand towels were prevented in the first place.



Drafts (air current) caused by the opening and closing of scrub room doors causing the packaging to fold over and contaminate the sterile hand towels



Plastic clips to prevent contamination of the sterile hand towels

## Select Changes

### Non-Sterile Plastic Clips

Non-sterile plastic clips were provided in the scrub room. These clips were used to clip the edges of the packaging of the sterile hand towels to the trolley.

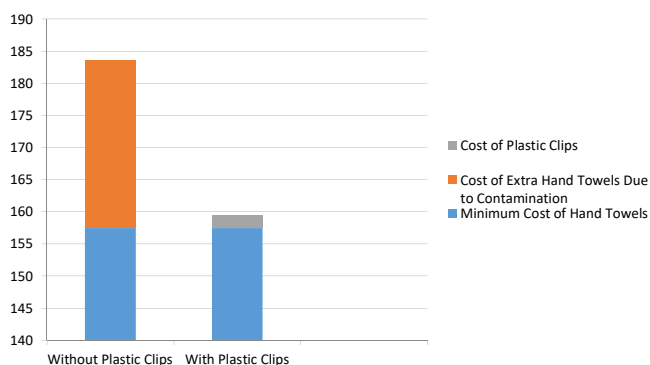
## Test & Implement Changes

### Cost of Non-Sterile Plastic Clips

The total cost of the plastic clips is  $\$0.50 \times 4 = \$2$ .

The plastic clips are non-disposable and can be reused. They eliminated the extra cost of \$26.20 incurred due to contamination of sterile hand towels in one month.

**Total cost savings in one month:**  $\$26.20 - \$2 = \$24.20$



## Spread Change/Learning Points

### Conclusion

The plastic clips are a simple and cost-effective solution to prevent contamination of the sterile hand towels and reduce the risk of surgical site infection.

The clips ensure that the packaging of the hand towels does not fold over, even when there are drafts due to the scrub room doors opening and closing.