Eliminating the use of canvas stretchers for patient transfer in MOT

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Background

In MOT, patient trolleys are lined with a draw sheet, a disposable plastic incontinence sheet, and a canvas stretcher. Patients are transferred from trolley to bed and vice versa with this set of linen.

With the introduction of the pat slide, the primary purpose of the canvas stretcher has become redundant. Drying of the canvas after cleaning takes a long time, resulting in delay and/or shortage for usage. Furthermore, reprocessing fee of the canvas stretchers can be costly. Enrolled Nurses and Health Care Attendants are also tasked to prepare these sets using a considerable amount of time.

Aim

To eliminate the use of canvas stretchers in the linen set used to line trolleys when transferring patients in MOT.

Analysis of problem

Linen sets are prepared using a draw sheet, a disposable incontinence sheet made of plastic, and a canvas stretcher.

Fig. 1: The three layers used to line trolleys: 1) Draw sheet 2) Incontinence sheet 3) Canvas stretcher

Waste analysis:

Current workflow	Waste
The canvas stretcher is a bulky sheet with two parallel openings which, when necessary, can be slotted with two metal bars, turning the canvas sheet into a stretcher for transfer of the patient.	With the introduction of the pat slide, the primary purpose of the canvas stretcher has become redundant.
Enrolled Nurses and Health Care Attendants are tasked to prepare these sets.	Takes approximately 2 minutes to prepare three layers of the linen set.
After use, the set is dismantled and sent for cleaning.	Owing to the bulky nature of the canvas stretchers, the long turnover time taken to wash and dry them result in a delay and/or shortage for use.

Interventions/Initiatives

By identifying and eliminating the "waste" identified in the previous section, the removal of the canvas stretchers resulted in several beneficial outcomes for the department, as elaborated in the following section.

Results

A patient trolley lined with the prepared linen set and ready for use is illustrated in Fig. 2.

Fig. 2: Trolley ready for use

1. Cost Savings

Eliminating the use of the canvas stretchers resulted in substantial cost savings for the department.

With a total of 330 pieces in stock and 1,107 pieces in circulation, the total reprocessing cost per year is as follows:

Reprocessing fees per year	Cost (SGD)
Replacement cost (200pcs/year)	$5,000.00
Handling cost $2.20 x 172 (norm per day)	$138,116.00
Total reprocessing cost per year	**$143,116.00**

By removing the canvas stretchers from the linen set, the department saves $143,116.00 per annum.

2. Man-hours

Before: Approximately 2 minutes to prepare three layers of the linen set, including handling of the bulky canvas.

After: Time reduced to 1 minute as the linen set is more lightweight.

1min x approx. 125 sets a day = 125 mins (2 hours 5 mins) a day

Linen sets are ready for use in a faster time and skilled staff can be re-deployed to other areas requiring manpower.

Conclusion

Eliminating the use of canvas stretchers in the linen set used to line trolleys for transferring of patients in MOT has resulted in substantial financial savings and improved efficiency for the department.