



Singapore Healthcare Management 2016

In-House Manufacture of Hand Mittens

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1. Introduction

It was observed that many patients from **low-income families** were less likely to purchase hand mittens, **deterred by the costs.**

This often resulted in them **detaching IV lines and catheters** on their own, disrupting the care process.

This also added to the **workload** of the nursing staff who had to **repeatedly** replace the implements.

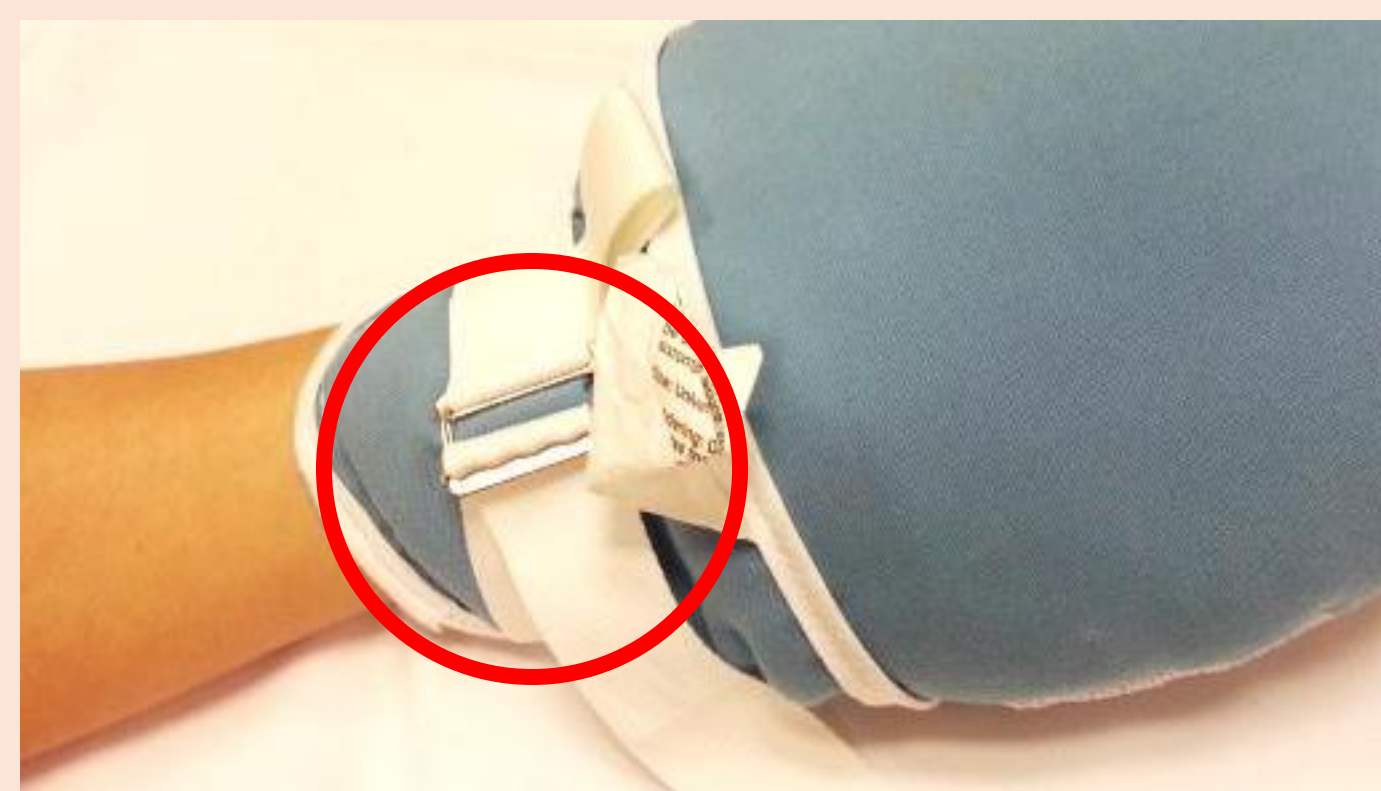
2. Methodology

Our Linen team set out to produce a **low-cost** alternative, studying existing hand mittens to identify areas for improvement.

It was observed that the use of **hard materials** can cause **discomfort** and even **injury** to the patients.



Plastic buckles press against wrist when tightened



Metal buckles can cause lesions on the patients' skin

Using **repurposed fabric** and a design that incorporates a **fabric fastening system**, we were able to keep costs low while ensuring **patient comfort and safety.**



3. Results

40 pairs of low-cost hand mittens were produced for the wards for loan to patients free-of-charge and are laundered regularly for re-circulation.

150 patients have benefitted from free use of the hand mittens since 2013.

The cost of materials and labour in producing each pair comes up to only **\$10.** We hope to make them available for purchase for **home care** use in the future.



Cost Comparison with Existing Hand Mittens

4. Conclusion



Overall, the handmittens

- Benefit needy patients & their families
- Improve comfort and safety of patients
- Lessen workload of nurses

There are plans for an **improved version** of the hand mittens with flaps that will allow **easy monitoring** of the patient's **blood circulation** and **skin condition.**