

Project Title

Driving Productivity through Implementing the Miami Wheelchair Shower System

Project Lead and Members

Project lead: Joe Hau

Project members: Sim Teck Meh, Teo Lay Hong, Gwendolyn Ong

Organisation(s) Involved

Ren Ci Hospital, Ang Mo Kio Nursing Home, Bukit Batok Nursing Home

Aims

- To implement a technology solution that could reduce time and effort spent by staff in showering wheelchair-bound patients and residents
- To empower staff to focus on more value-added activities

Background

See attachment

Methods

See attachment

Results

See attachment

Lessons Learnt

As in many technology adoption projects, the team learned the importance of being open minded and embracing of change. Although at times there may be resistance to new technology, be it from elderly patients and residents and even staff, it is important to continually engage stakeholders and listen to feedback, and take on a continuous improvement mindset to assimilate technology into processes, and to eventually reap the productivity benefits of automation and innovation. As the implementation of the

13 units is still underway and carried out in phases, the team is proactively fine-tuning processes and optimizing the equipment and space set up to facilitate easy cleaning and maintenance.

Conclusion

The care-taking journey for patients and residents is often laborious and demanding for staff. Given the shortage of manpower especially in the ILTC sector, it is critical to constantly innovate and embrace technology that can automate and optimize processes, to empower staff to do their jobs better. At the same time, it is also important to look for ways and solutions that can help patients and residents make their healing journey more pleasant. This is how the organization can deliver value-based care to patients and residents. Ever since Ren Ci adopted the Miami Wheelchair Shower System, the team has also showcased the technology to ILTC partners and hosted multiple learning visits. Through open learning and sharing, other ILTC partners have also followed suit and adopted this technology into their nursing home/ senior care centre settings.

Additional Information



The Miami Wheelchair Shower System is a Japanese technology that was first trialled in Ang Mo Kio Nursing Home in December 2018/ January 2019. It was later trialled in the Community Hospital setting in March 2019. Ren Ci Hospital was the first in the intermediate and long-term care (ILTC) sector to trial this shower machine. The system

garnered media coverage in both Straits Times and Zaobao in March 2019, and was also showcased to PM Lee during the official opening of Ang Mo Kio Nursing Home in May 2019

Project Category

Automation, IT, Robotics Innovation, Productivity

Keywords

Automation, IT, Robotics Innovation, Productivity, Basic Activities of Daily Living, Quality Improvement Methodology, Value Stream Mapping, Time Optimisation, Value-Added Activities, Time Savings, Manhour Savings, Community Care, Value-Based Care, Intermediate and Long Term Care, Ren Ci Hospital, Ang Mo Kio Nursing Home, Bukit Batok Nursing Home, Viami Wheelchair Shower System, Technology Assisted Showering

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Driving Productivity through Implementing the Miami Wheelchair Shower System

Project team: Joe Hau, Sim Teck Meh, Teo Lay Hong, Gwendolyn Ong

Background & Reason for Action

A Value Stream Mapping (VSM) was carried out to tackle the non value added work in Ang Mo Kio Nursing Home. Through the VSM, it was observed that **showering was one of the activities that was most time-consuming and manual, taking up 11% of staff's daily responsibilities**. It was evident that staff needed to be freed up to **better optimize their time for other value-added activities**, such as supporting and engaging residents in their healing journey.

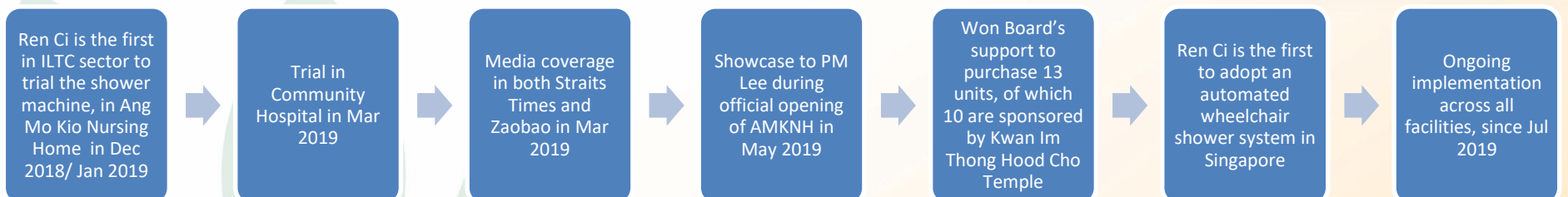
Intervention

The Miami Wheelchair Shower System is a shower bath system for wheelchair-bound patients and residents that enables **hassle-free shower experience for both staff, and patients and residents**.

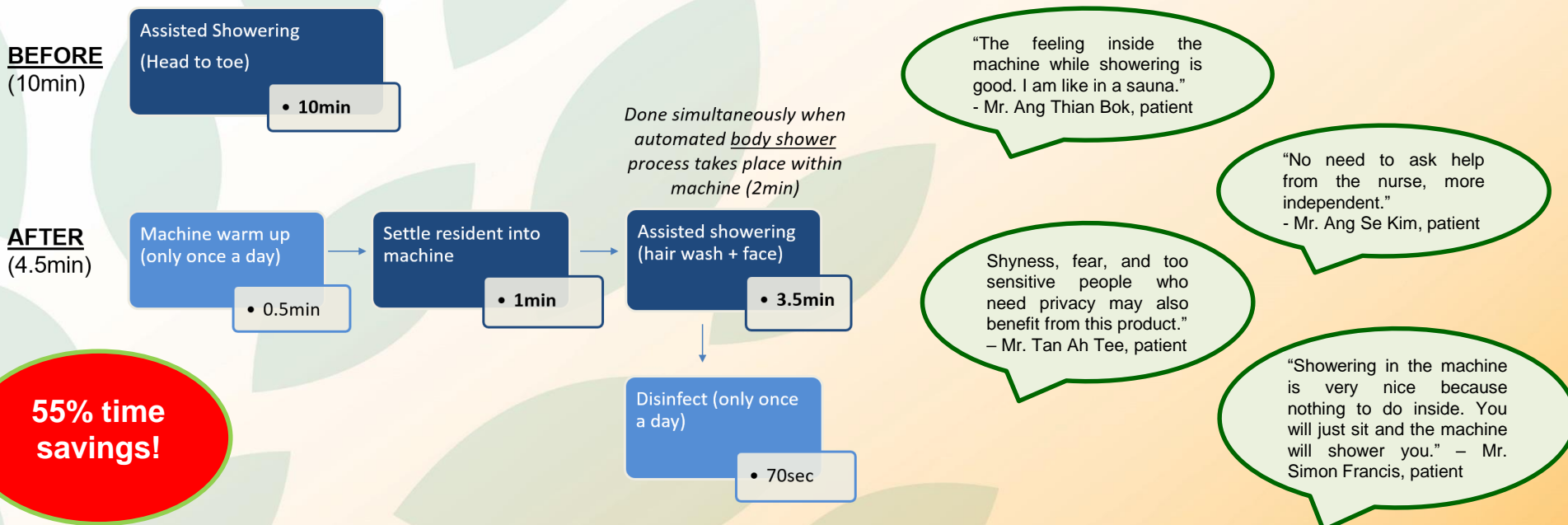
- ✓ Body shower process is faster and automated with a push of a button.
- ✓ Burden on staff is reduced because splashing of water is greatly minimized and automation largely eliminates physical effort and strain on staff.
- ✓ Protects privacy of patients and residents, as the shower process takes place within a dome shaped equipment with minimal exposure of their bodies.
- ✓ The 300-micron particles shower allows patients and residents' bodies to warm up quickly and be kept warm, enhancing user experience and comfort.



Key Milestones and Implementation Plan



Outcomes



Facility	Total no. of units	Est. no. of benefitting patients/residents	Actual man-hours saved per month (at present)	Potential man-hours saved per month (at full implementation)
Community Hospital	3	60	110	165
Ang Mo Kio Nursing Home	3	96	88	264
Bukit Batok Nursing Home	4	147	88	404
Woodlands Nursing Home (upcoming)	3	tbc	-	tbc

Our Learning

The care-taking journey for patients and residents is often laborious and demanding for staff. Given the shortage of manpower especially in the ILTC sector, it is critical to **constantly innovate and embrace technology** that can automate and optimize processes, to **empower staff to do their jobs better**. At the same time, it is also important to look for ways and solutions that can help patients and residents make their **healing journey more pleasant**. This is how Ren Ci strives to deliver **value-based care** to our patients and residents.