

CHI Learning & Development System (CHILD)

Project Title

Leveraging on Artificial Intelligence (AI) To Improve Patient Care

Project Lead and Members

- Ho Fook Lin
- Che Rui
- Jhoan Lua Hau
- Chee Li Li
- Chia Soon Noi

Organisation(s) Involved

KK Women's and Children's Hospital

Healthcare Family Group Involved in this Project

Nursing

Project Period

Start date: 2020

Aims

- To help reduce nurses' time spent to retrieve registration forms from the registration counter
- To enhance children's experiences while waiting for surgery
- To enable nurses to deliver care safely and spend more quality time with surgical patients in Day Surgery

Background

See poster appended / below

Methods

See poster appended / below



CHI Learning & Development System (CHILD)

Results

See poster appended / below

Lessons Learnt

See poster appended / below

Conclusion

See poster appended / below

Additional Information

Singapore Healthcare Management (SHM) Conference 2021 – Shortlisted Project (Patient Experience Category)

Project Category

Technology, Digital Health, Telehealth, MedTech, Robotics, Care & Process Redesign, Quality Improvement, Workflow Redesign, Value Based Care, Patient Satisfaction, Productivity, Time Saving, Manhour Saving

Keywords

Temi Robots, Inpatient Care, COVID-19, Contactless

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Leveraging on Artificial Intelligence (AI) To Improve Patient Care





Ho Fook Lin, Che Rui, Jhoan Lua Hau, Chee Li Li, Chia Soon Noi

INTRODUCTION

In 2020, 2 units of Temi Robot were deployed to KKH Day Surgery. These Temi Robots were "programmed" to perform 3 specific tasks in Day Surgery.

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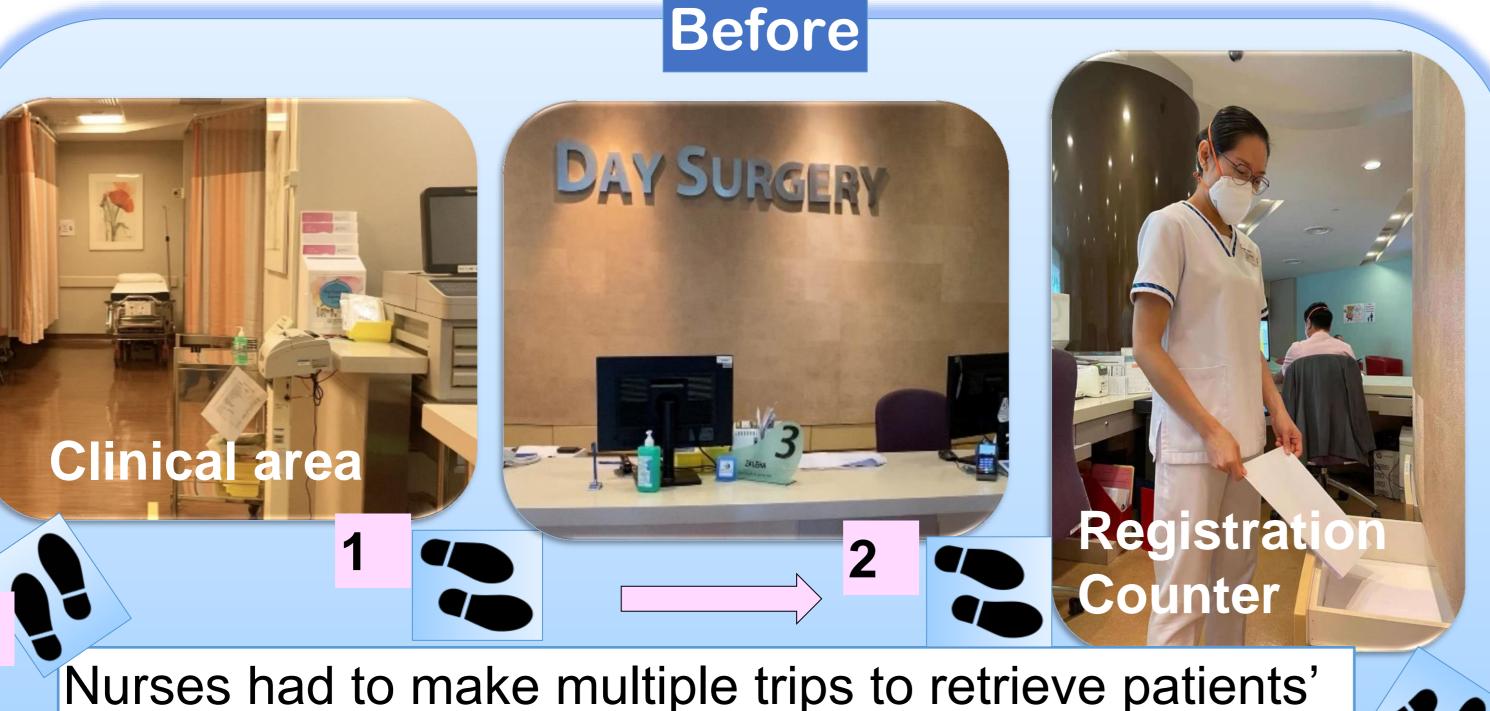


AIM

- To help reduce nurses' time spent to retrieve registration forms from the registration counter.
- To enhance children's experiences while waiting for surgery
- To enable nurses to deliver care safely and spend more quality time with surgical patients in Day Surgery.

METHODOLOGY

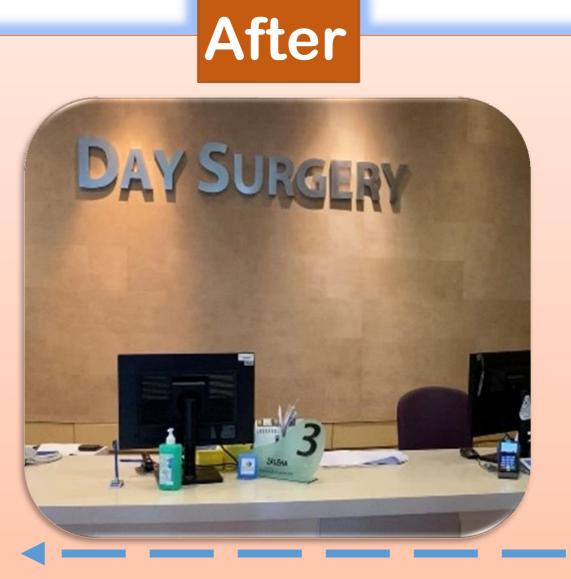
Transporting of patients' Admission Forms from the Day Surgery Registration Counter to the nurses at the clinical area

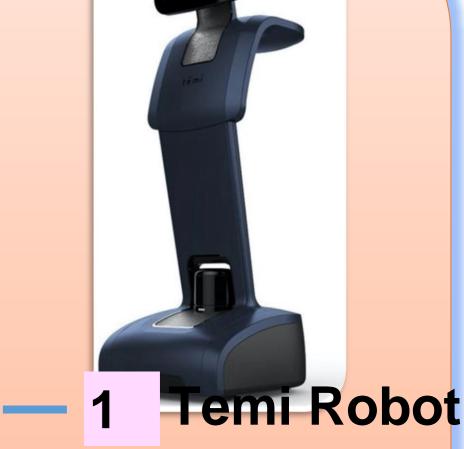


Nurses had to make multiple trips to retrieve patients Admission Forms from Registration Counter



Clinical area 2





The Temi Robot are now programmed to send Admission Forms from the Registration counter to the nurse at the Clinical Area

The Temi Robot is able to transport 900 documents per month

Entertain children by playing their favourite songs/videos on demand while waiting to enter Operating Theatres for surgery

Before

Young children had been naturally anxious and fearful of new and strange environments with unfamiliar faces when coming for surgery



After
Temi Robots are able to play children's

favourite songs/videos on demand.

- Allay children's anxiety and reduce fears
- Entertain children while wating for surgery

Received positive feedback from parents that Temi Robots improved their children's experiences



Perform contactless tele-consultations between the Acute Respiratory Infection (ARI) symptomatic patient and Anaesthetist / Surgeon

Before

Some patients turned up at the Day Surgery with Acute Respiratory Infection (ARIs) which required doctors to perform ARI assessment



After

The Temi Robot is able to perform teleconsultations between the patient and Anaesthetist/ Surgeon

 No risk of healthcare workers being exposed to ARI/ Covid -19 infections

The use of TEMI Robot provides safe distancing during patient assessment



RESULT

The use of Temi Robot had <u>saved 30 man hours per month</u> for transporting Admission Forms to nurses.

With Hours saved, nurses can focus on providing quality care to patients. Temi Robots had also:

- Improved overall experience of children waiting for surgery.
- Minimized healthcare staff's exposure to potential COVID-19 patients.

CONCLUSION

Al performs tasks that are typically done by humans, and it has countless applications in Healthcare.

The deployment of Temi Robots to our KKH Day Surgery has a positive impact on patient care in the peri-operative environment.