

National Quality Improvement Conference

Leveraging on Smart Robot (temi) for Virtual Visitation in ED

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Problem Statement

- With high BOR, ED patients bed wait time range from 6 to 48 hours. **Next-of-Kin (NOK) are worried, anxious** and they are unable to visit patients as P2 clinical area does not allow visitation.
- Elderly/low cognitive patients/NOKs without mobile phones or are non-IT savvy are unable to communicate with each other.
- 64% of our PSAs surveyed shared that they **frequently get scolded/ complained** for not allowing NOK to see/visit the patient.
- This **impacts staff morale** and creates a **negative patient/NOK experience** 😞

Project Aim

To explore and trial the use of smart robot in ED for Virtual Visitation through Video Call over 1 week to assess its effectiveness in improving patient/ NOK's experience and increasing manpower efficiency.

Post-intervention Measures

Quantitative - Number of video calls made on temi, Time Taken to facilitate video call

Qualitative - NOK survey post-video call & staff survey post-pilot

Lessons Learnt

Not 1 size fit all solution

- Robots/ technology are often quoted as a solution to pain points or a means to improve efficiency. However, the context of using these tools needs to be critically assessed
- **Human intervention is also still required to fully optimize the potential of the robot**

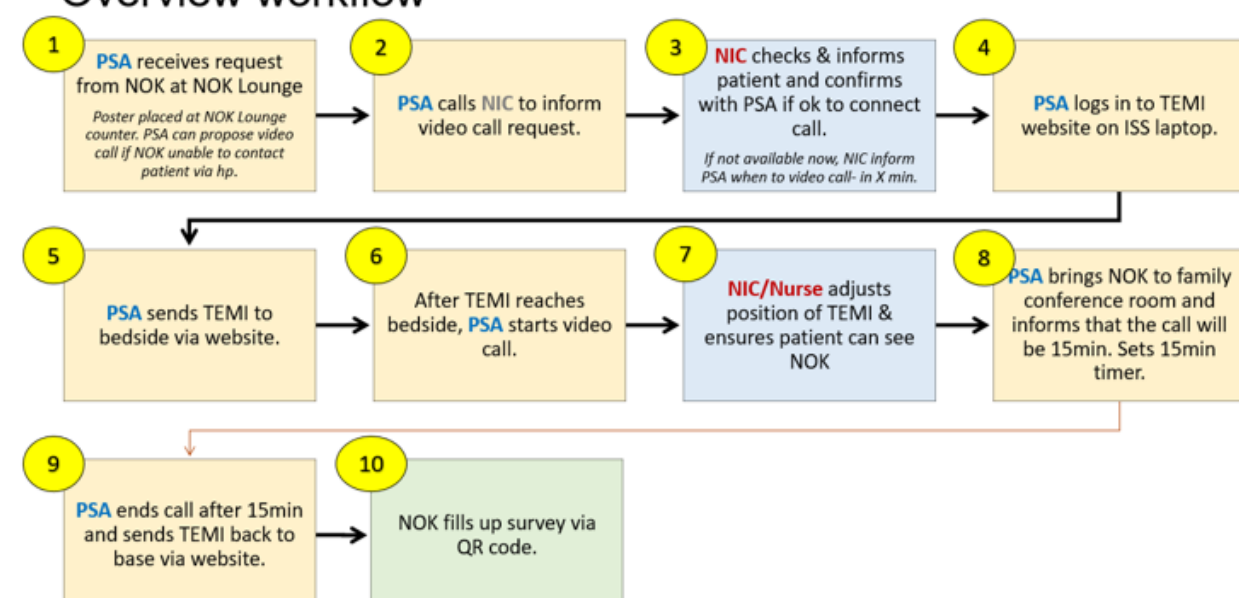
Change Management is key

- As having a smart robot in ED is something new, how we influence our end-users is key
- **Time has to be invested in communication/ demo sessions**
- Important to learn how to adapt, adopt and co-exist with these new technological solutions

Potential Solutions

PDSA cycles were run in shorter intervals during the pilot. Workflows were revised to adapt to changes on ground.

NOK Video Calling with Patient (11-18 April) - Overview workflow



Poster placed at NOK Lounge counter. PSA can propose video call if NOK unable to contact patient via hp.

Alternative solution without temi - Use iPad

Time taken	20 min/call This service is currently not provided. If tap on PSA/Nurse to facilitate video call, it can take up to 20min/call.
Other Considerations	<ul style="list-style-type: none"> • Accountability of iPad cannot be guaranteed. High risk of loss. • iPad has no whatsapp, telegram or zoom licence. The person who is dialing in must have the same app. • Manpower required to physically supervise video calls, deliver & collect back the iPad from patient's bedside.

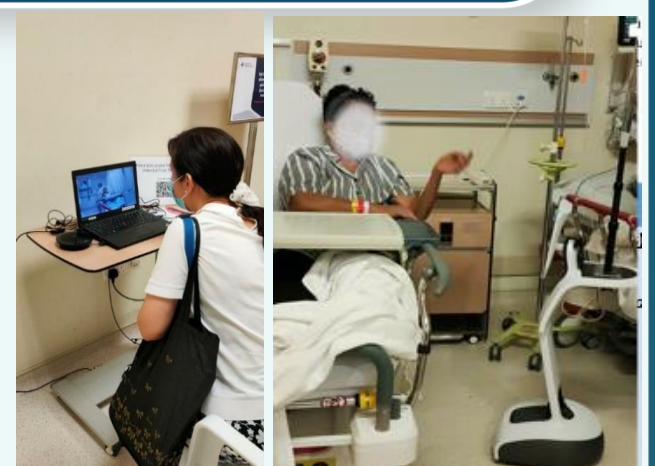
Outcomes & Impacts

Positive feedback from NOKs

8 NOK responses- 100% found service helpful.

Patient has a traditional phone but the battery is flat. This service is very helpful (expressed repeatedly during our conversation). Patient has been at ED since Sunday and still waiting for bed (Wed). **Happy can encourage her mother and can take photo of the screen to share with her siblings too.**

Grateful that the option exist so that she can still see the patient. (Patient on tubes, non-communicative)



Wife (78 yo) found the experience very good, can see and hear patient very clearly.

No. of cases	8	Time taken	8 mins/call for PSA
Staff Survey Outcomes	PSAs (39 responses) Yes: 72% Out of those who tried during pilot → Yes: 92% Nurses (57 responses) Yes: 69% Out of those who tried during pilot → Yes: 100%		
Next Steps	<ul style="list-style-type: none"> • Decision by ED Patient Experience Workgroup to seek unbudgeted funding to purchase 1 unit of TEMI robot for Virtual Visitation • Explored purchase vs lease but the leasing model is not cost-effective in the long run 		