Utilising smart glasses technology to improve tele-triaging process at the fever tent of Alexandra Hospital Urgent Care Centre (UCC)

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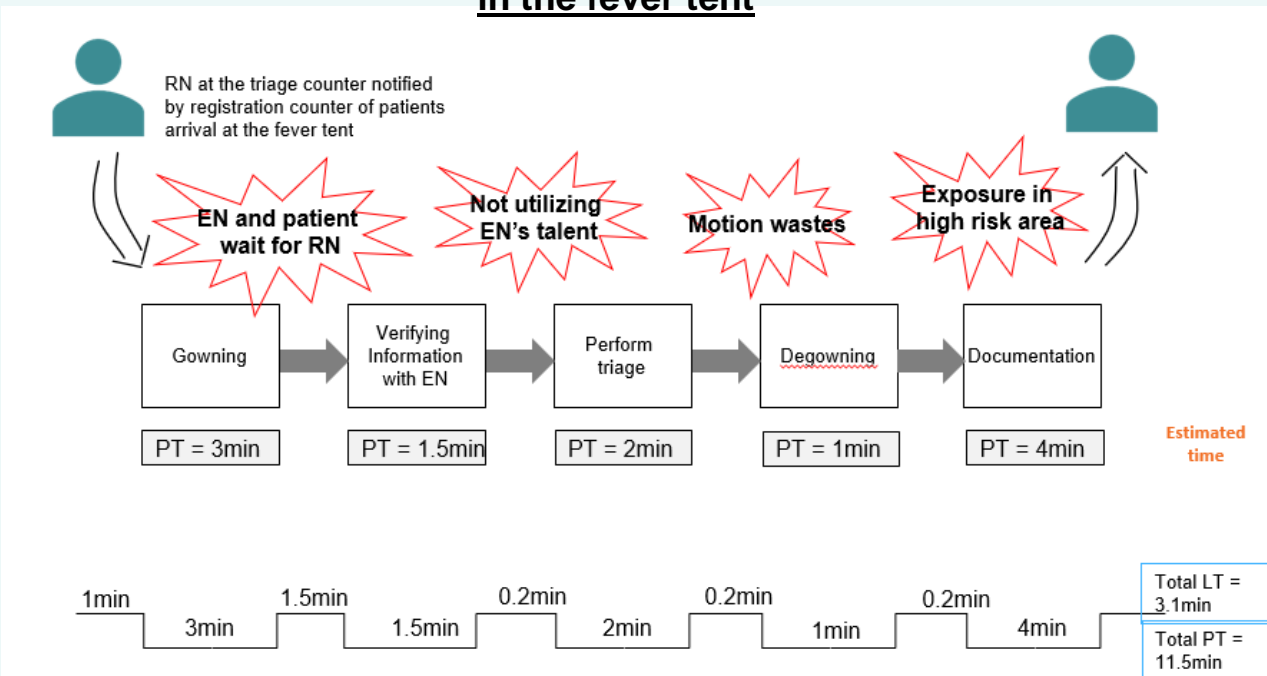**Sponsors:**
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Problem Statement

During pandemic, enrolled nurse who is assigned to assist at the Extended Screening Area (ESA) will carry out basic nursing care for patients at ESA. After which they have to wait for RN to perform triage. During busy times, when RN at the triage counter is unable to enter ESA, RN relies on EN to relay patient's information over the phone to complete the triage process.
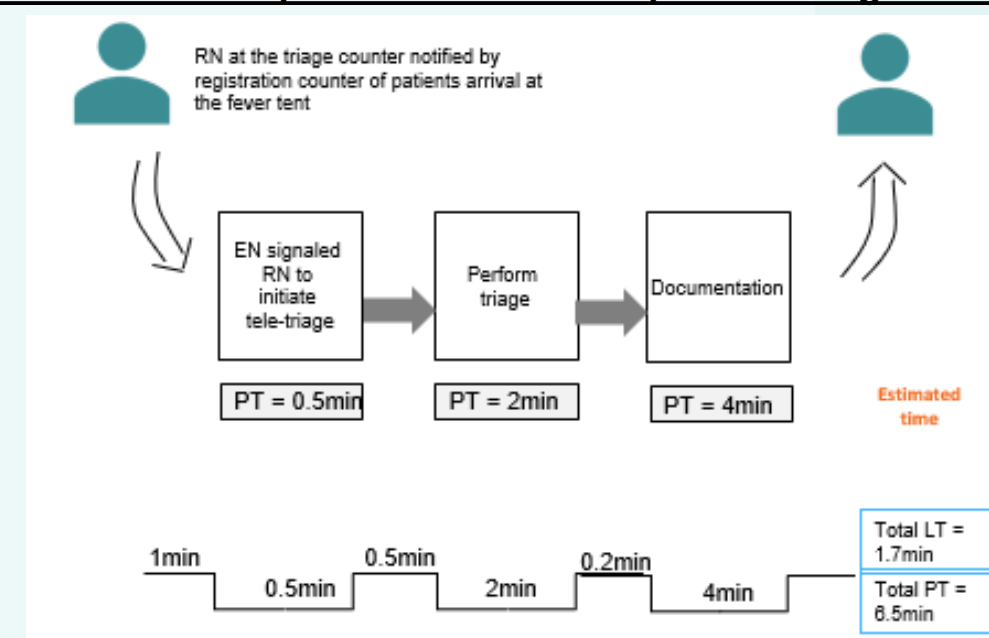
Value Stream Map: Process for RN to perform triage on one patient in the fever tent

Project Aim

Using smart glasses to facilitate tele-triaging in the fever tent, we aim to improve the workflow efficiency by reducing the average visit duration of P2 & P3 patients at the fever tent by 10%.

Lessons Learnt

Despite the initial round of user engagement session did not gather huge interest, the team continued to introduce the ideas and smart device to more users and stakeholders. **Lessons learnt** include having clear goals and objectives to get support not only the management/stakeholders but also the ground users. In addition, it takes time for others to understand and see the value of ideas/device. Hence do not give up too soon.

The collaboration between nursing/clinical team and innovation/technology team ensures the project has end-to-end aspects covered. **Lessons learnt** include to include key stakeholders that can contribute their experience and expertise to your project.

Potential Solutions

Root-Causes	Counter-Measures
Unable to visualise POCT results or patient condition when using phone call to relay information during triage process.	1. Provide communication tool with real-time visual input
Manpower stretched hence RN has to cover both triage and fever tent.	2. Optimize workflow and processes to minimise any added workload or burden to RN.
Strict safety protocol to get into fever tent (high risk zone)	3. Reduce the need to get in and out of the high-risk zone
Limitation on the tasks that ENs can do.	4. Upskill ENs to perform additional tasks.

Value Stream Map: Process for RN to perform triage on one patient in the fever tent (future state)

Outcomes & Impacts

Average visit duration is reduced by 24% for P2 & P3 patients at the fever tent when their visits were facilitated by smart glasses.

Impact of Smart Glasses on workflow efficiency		
	Visits which go by standard UCC workflow	**Visits facilitated by smart glasses**
Average visit duration	160.8 minutes *For all P2 & P3 patients in ESA during Jun-Sep 21.*	122.4 minutes *Based on 145 P2 & P3 patients in ESA whose visits were facilitated by smart glasses*
There is a difference of 38 minutes per visit (24% reduction)		

*Jun-Sep 2021 was chosen as the comparator because it has similar number of cases as Oct2021-Jan2022.

RN can perform tele-triage facilitated by EN who wears smart glasses, for patients in the ESA. This is a feasible, safe and efficient alternative compared to using telephone or conventional face-to-face method.

Through this arrangement, junior nurses felt empowered to deliver care to patients and this greatly increased their job satisfaction.