



SGH Wide Initiative for Teleconsultation (SWIFTcare)

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Background

The Singapore General Hospital (SGH) Emergency Department has experienced an increase in non-emergency cases seeking treatment. This has resulted in longer waiting times and daily overcrowding.

A drill-down of attendance and operational data revealed that around 10% (15-30 patients) of Emergency Department visits were classified as non-urgent, and attending to these cases could add an average of 2-2.5 hours in wait-time-to-consult for all Priority 3 (P3) cases.

To address these issues, SGH piloted a telehealth initiative in collaboration with 3rd party healthcare provider at the Emergency Department.

Objectives

1. Appropriate siting of care for non-urgent cases
2. Optimise and ringfence manpower and healthcare resources for urgent/emergency cases.
3. No increase in wait-time for non-urgent cases
4. No increase in out-of-pocket cost for patients without disbursements

Interventions

As of 2024, Singapore General Hospital (SGH) is one of the first few Emergency Departments (ED) in Singapore to implement a physical telehealth booth system for diverting non-urgent walk-in cases. Whilst existing solutions include educating patients and offering offsite telehealth options for non-urgent cases, these approaches were unable to address non-urgent cases already present at the SGH ED.

The proposed pilot was implemented to allow ED staff to focus on higher-acuity patients without neglecting care for non-urgent cases. We leveraged underutilised room in the ED, handing them over to Our 3rd party collaborator, who managed the set-up of telehealth booths and provided the necessary equipment and consumables onsite.

Additionally, to ensure continuity of care any follow up care necessary by the ED team is communicated via tracked email reporting.

At the start of the pilot, regular meetings were scheduled to gather feedback from stakeholders and Our 3rd party collaborator. These later transitioned to biweekly huddles to ensure any operational or clinical matters were promptly addressed. Examples of what was discussed included, broadening the definition of patients who could be referred, removing age limit, including onsite nursing services as well as raising awareness through customised signage and flyers.

As the pilot was implemented, medical and nursing staff were briefed to begin diverting non-urgent cases to SWIFTcare. This diversion primarily occurred during triage or by raising awareness of the service during the waiting time for doctor consultations.

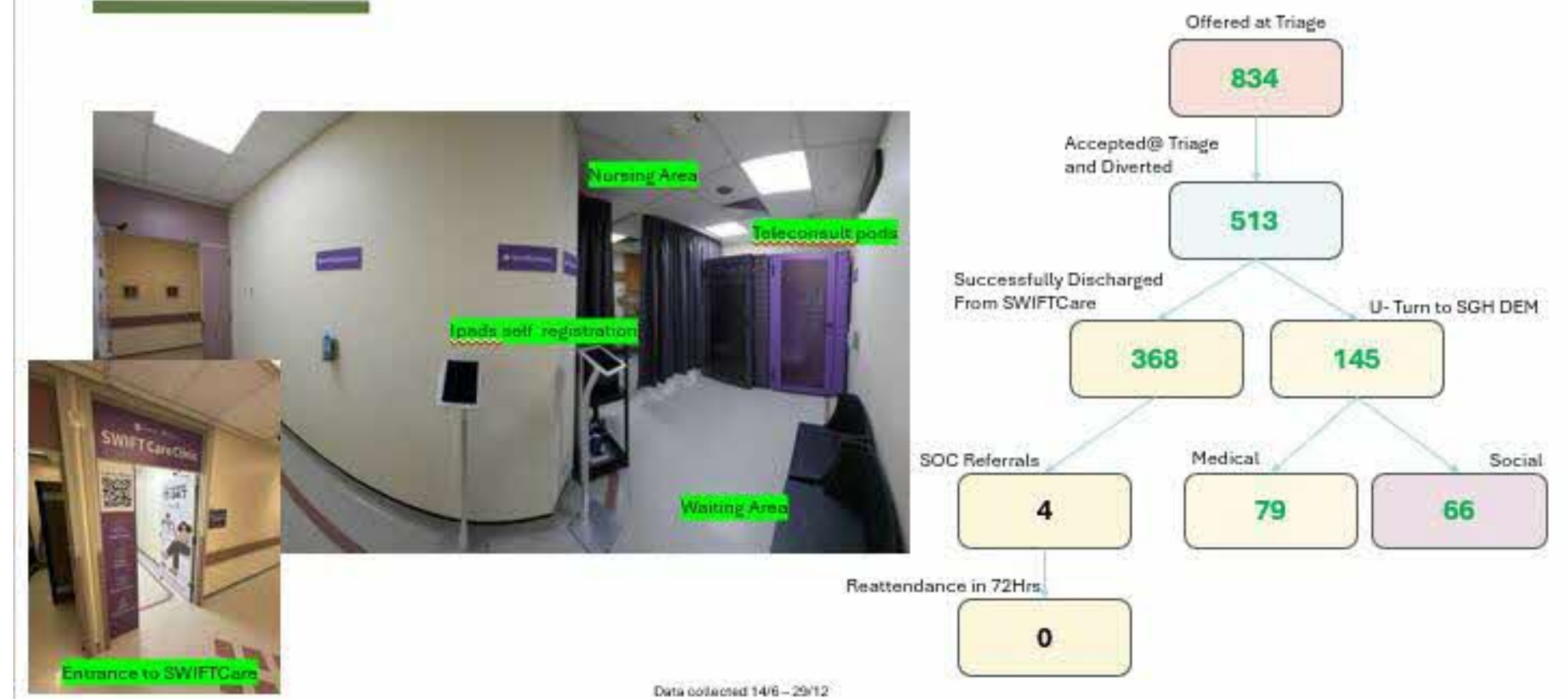
| Timeline of Events | Feb 2024 | Mar 2024 | Apr 2024 | Jun 2024 | Jul 2024 | Aug 24 | Sep 24 |
|--|----------|----------|----------|----------|----------|--------|--------|
| Data Analysis on potential patient load for telehealth at ED | | | | | | | |
| Requirement Gathering and drafting of specifications | | | | | | | |
| Open ITQ and award/approval to telehealth vendors and | | | | | | | |
| Determining and confirmation of space | | | | | | | |
| Go Live Date | | | | 14 Jun | | | |
| Weekly huddles and refinement of patient profile | | | | | | | |
| Biweekly Huddles | | | | | | | |

As we implemented the pilot programme, we further refined the patient criteria and prerequisites for telehealth diversion. To expand our reach, we removed age limitations and collaborated with Our 3rd party collaborator to bring in nursing staff to handle simple treatments.

We have also worked to increase awareness within the department through various means, including signage, flyers, and daily roll calls for staff.

As of 14 June 2024, we implemented SWIFTcare onsite at SGH ED. From that date until 29 December, we successfully discharged 368 patients through this service. These SWIFTcare patients experienced significant decrease in waiting times for consultations, immediate access to medications, on top of on-site safety measure allowing for reassessment and potential up triaging when required.

Interventions (Continued)



Results

| Metric | Description | Measurement | Target/Estimate (weekly) | Results (weekly) |
|--|--|----------------|--------------------------|------------------|
| Workload @ Diverter | P3 cases @ SGH ED | # of patients | | 1014 |
| | Patients offered Divertor services | | | 30 |
| | Patients Diverted to Divertor services | | ~15-30 | 13 |
| Patient U-turn to ED | Medical reasons | Percentage (%) | 1.5 | 2.7 |
| | Social reasons | | | 2.3 |
| Number of SOC referrals (by specialties) | - | | 1.5 | 0.14 |
| Patient re-attend ED within 72hrs | - | | 1 | 0 |
| Sentinel events (while waiting and during Divertor consult) | - | | 0 | 0 |
| Sentinel events (fall or other environmental causes leading to injury) | - | | 0 | 0 |

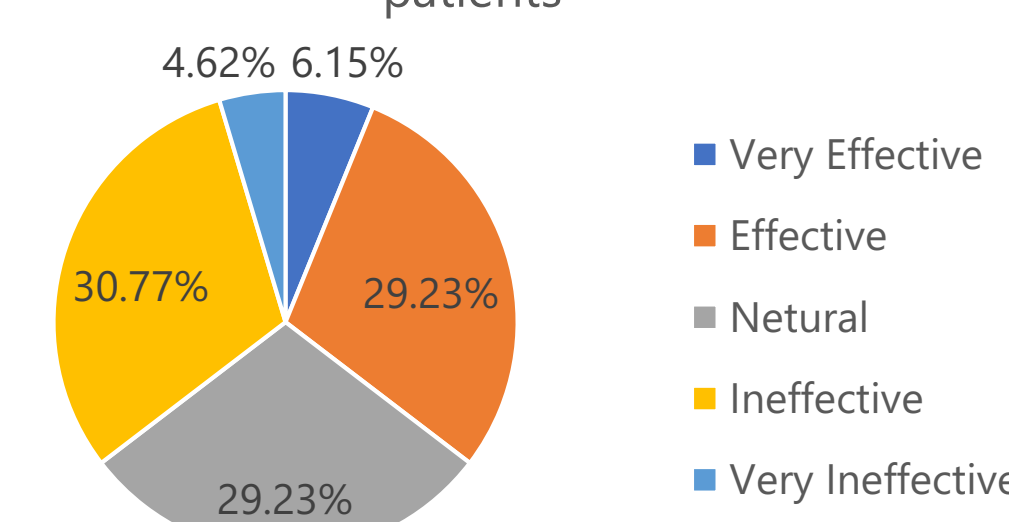
| Date | Patient | 25 th Percentile | Median | 75 th Percentile |
|---------------------------------------|---|-----------------------------|--------|-----------------------------|
| Pre-implementation 01/01/24-13/06/24 | P3 Patients Wait Time to consult (mins)* n = 23,272 | 42 | 94 | 177 |
| Post Implementation 14/06/24-31/12/24 | P3 Patients Wait Time to consult (mins)* n = 27,728 | 39 | 82 | 164 |
| | SWIFTcare patients Wait Time to consult (mins) n = 367 | 1 | 1 | 1 |

*Wait time to consult was calculated based on time of Registration to Time of provider note creation

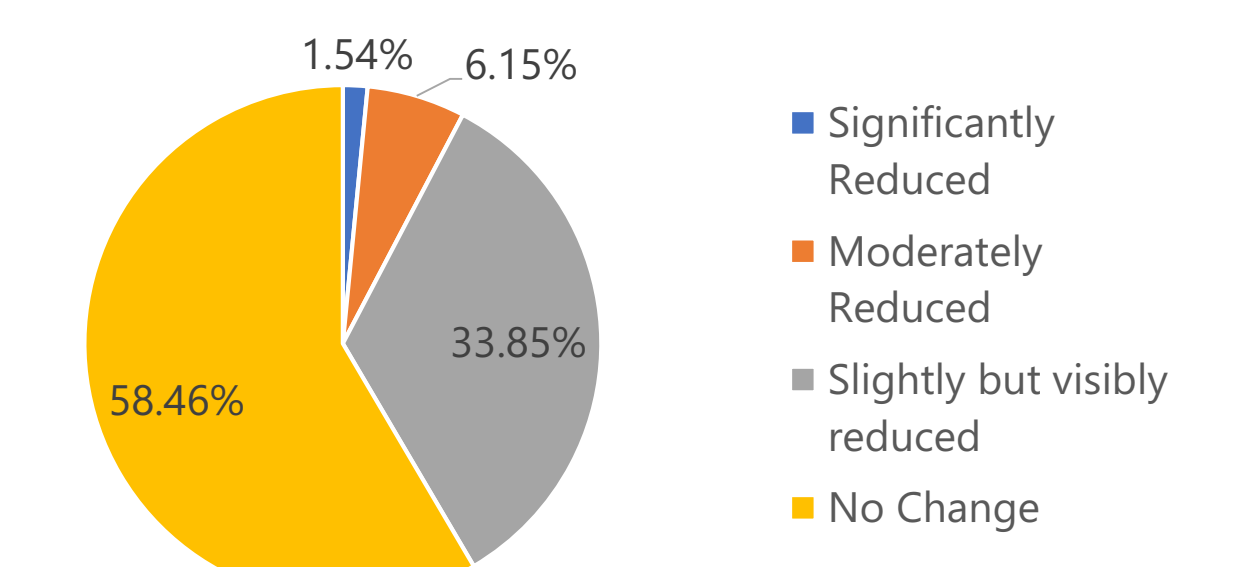
With the implementation of SWIFTCare, patients swiftly receive care, and others remaining in p3 also benefited with a 14% decrease in waiting time. SWIFTcare patients also paid a much lower rate as compared to SGH ED patients. The average bill size seen per patient is \$64.64.

Staff Satisfaction Survey

In your opinion, how effective is SwiftCare in addressing the medical needs of non-critical patients



In your opinion, how has SwiftCare impacted the number of P3 visits to SGH A&E?



Patient Satisfaction (Data collected 14/6 - 29/12, N = 37)

- 78% rated service as Excellent with 0% dissatisfaction
- 97% of patient's medical concerns were addressed, with 92% agreeing to using this service again.
- 94% will recommend to this service.

Sustainability Plans

The proposed innovation has been adopted since June 14, 2024, and there are plans to continue this service in the new Emergency Medical Building (EMB) in August 2025. On the extent of the scale up, we have currently allocated underutilised rooms on our clinical level where Our 3rd party collaborator could easily set up their telehealth booths.