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Improving Patient Wait-time Experience through Short Message Service (SMS) at Singapore General Hospital (SGH) Outpatient Pharmacy

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Background

A SMS notification system is available at the SGH Outpatient Pharmacy to alert patients when it is close to their queue number to collect medications. The system offers patients the flexibility to leave the pharmacy for other matters (e.g. arrangement of appointments) while their prescriptions are processed, eliminating the need to wait at the Pharmacy physically. The system also notifies patient when the queue number is missed, and informs them to collect their medications at the missed-queue counters.

According to the survey conducted in 2015, 54% of patients would like to be alerted of their turn through SMS. However, most patients are not aware of the availability as the service was not routinely offered to them. Preliminary data showed that an average of 0.7% of the daily patient load opted for this service.

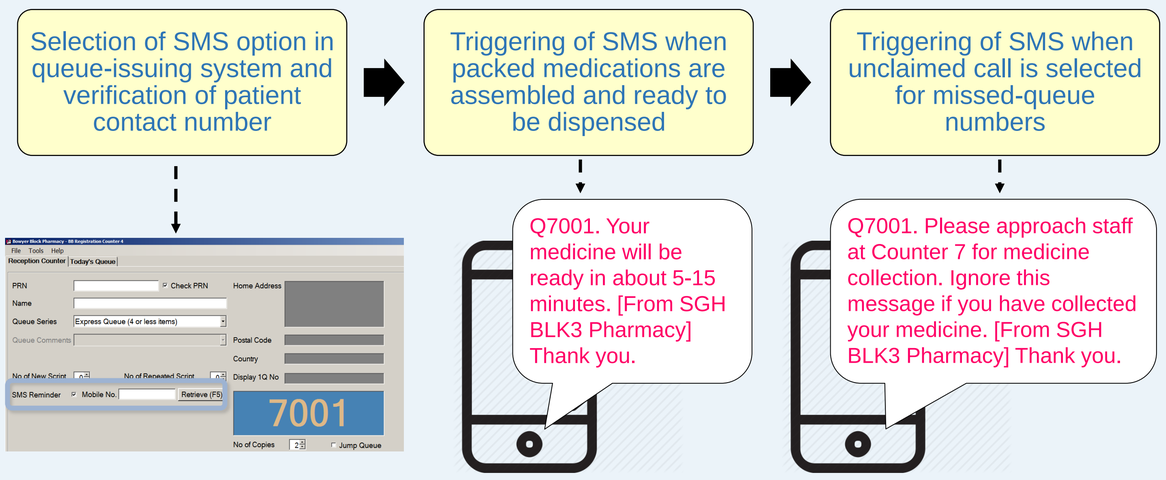

Figure 1: SMS workflow and sample messages sent to patients

Mission statement

The project objective was to increase the number of patients enrolling into the SMS service, and thus improve the patient wait-time experience at the Pharmacy. SMART tool was used for target setting. Based on the past survey, the aim was to increase the proportion of patients on the SMS service to 50% within 3 months.

Analysis

Root cause analysis was conducted to identify the causes for the low SMS service uptake at the Pharmacy (Figure 2). To verify the findings, staff survey was also conducted to elicit their opinion on the SMS service offered by the Pharmacy.

The most prevailing root cause of low SMS service uptake rate was the additional step required to select the SMS option in the queue-issuing system, especially during periods of high patient load, and the hassle of obtaining or verifying contact details. Some of the staff were also unsure of how to offer the SMS service to patients, for example on identifying patients new to the service and explaining the service to them. Random patient interviews conducted also found that patients were unaware of the SMS service, mostly due to the lack of prominent display of service available.

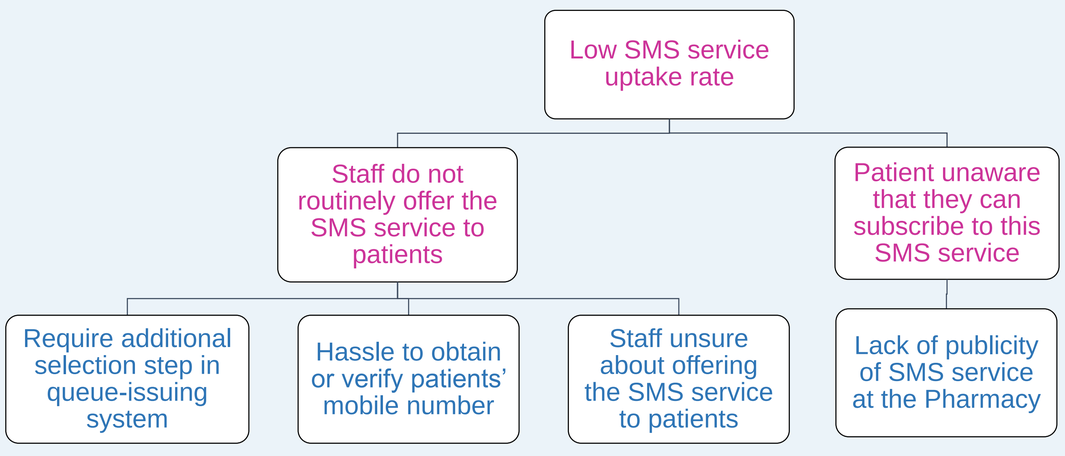

Figure 2: Root cause analysis for low SMS uptake rate

Interventions / Initiatives

From the root causes identified, a brainstorming session was held and the best solutions were selected through voting. The following interventions / initiatives were carried out:

Interventions / Initiatives	Benefits
Setup automatic SMS service selection on the queue-issuing system for every patient with mobile phone. Patients can choose to opt out from the SMS service.	• Eliminates the additional step required to select the SMS service option • Prompts staff to offer and/or promote the SMS service to patients
Conduct staff training sessions, which include how to offer and/or promote the SMS service and how to retrieve patients' contact numbers from system	• Improve staff confidence in offering SMS service • Minimize the hassle in obtaining contact numbers from patients

These interventions / initiatives and benefits of the SMS service were communicated to staff during meetings to engage them to actively promote the SMS service to patients.

Results

Following the implementation of automatic provision of the SMS service in Feb 2016, the average percentage of patients who took up this service steadily increased from 0.7% to 29.9%. With increasing patient awareness of the SMS service and staff confidence in offering the SMS service, the average percentage of patients who took up this service further increased to 45.5% three months post-implementation, meeting our project objective.

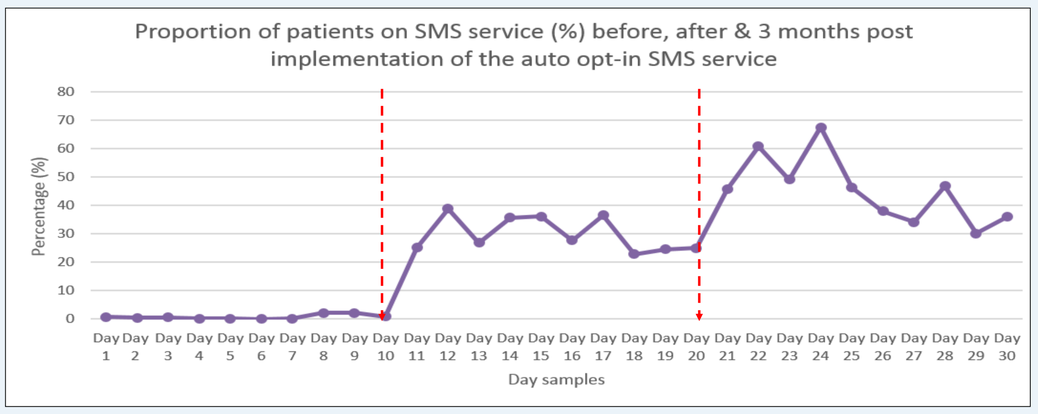

Figure 4: Percentage of patients who took up SMS service before and after automatic provision of SMS service

Post-implementation survey showed that 82.5% of our staff would be keen to use the SMS service if they were the patients themselves and 60% of staff agreed that the SMS service has improved the wait-time experience for patients. There were comments that the SMS service has helped to manage patient's wait-time expectation. Amongst the staff, 70% found it easier to offer the SMS service to patients and 55% did not observe any significant increase in the registration contact time while offering this service.

Sustainability Plans / Conclusion

We will continue to extract the relevant data from the pharmacy system and monitor the SMS service uptake rate. Regular feedback from patients and staff will enable further improvement of the SMS service. An example of a feedback received would be to explore multi-language SMS messages.

Overall, the SMS service has been well-received by patients, evident from the rising percentage of patient subscription to this service. Notification of patients' queue status as well as update of missed-queue status through the SMS greatly aid the management of patient expectation with regards to medication collection at the Outpatient Pharmacy.