The use of Mobile Technology to Improve Default and Cancellation rates for Procedures in Ophthalmology

Yuen YF(1), Lui DPY(1), Cheung J(1), Yu YY(1), Chow MY(1), Lam RF(1)
(1)Department of Ophthalmology, Caritas Medical Centre

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Introduction
Studies have found that the most common reason for patients defaulting appointments for procedures was patients simply forgetting the appointment or there was a mix up over the date and time of the appointment. Even when patients remember correctly to attend these appointments, patients often failed to follow pre-operative instructions such as stopping anticoagulants, resulting in cancellation of the procedure. These resulted in waste of public resources including personnel, operating theatre and clinic time, as well as financially. In our study, we have developed a mobile app, which aims to reduce this wastage, and it would be particularly beneficial for specialties such as Ophthalmology with one of the highest caseloads and longest waiting time.

Objectives
To reduce the default and cancellation rates of patients scheduled for procedures, thereby maximising resource utilisation and shortening the waiting times.

Methodology
The KWC Ophthalmic Services in collaboration with the KWC IT services, developed a mobile app called i-Easy. It is already available on Apple App Store® and will soon be available on Google Play®. It has the following functions:

• Appointment reminder Three days prior to and on the day of the appointment, a pop-up reminder regarding the date, time and venue will be sent through the app. Patients will need to confirm that they will come for the procedure. Failed confirmation at 3 days prior to the appointment will allow sufficient time for re-assigning the un-filled
time slot to another patient;
â€¢ Special drug alert reminder â€“ Patients who are taking medications that should be stopped prior to procedure, such as anticoagulants, will receive a reminder on the day that they need to start stopping these medications. A second reminder will be sent on the next day to confirm that they have done so;
â€¢ Pre-operative instructions â€“ General instructions such as arrangement of meals or need of fasting before procedure, dress requirement, and need of accompanying person upon discharge from hospital etc.;
â€¢ Patient information package - Patients can access all information materials including videos relevant to the procedure they will undergo.

**Result**
The default rates for procedures were around 3-5% in year 2016. After the launch of the app on 5th January 2017, over 200 patients have downloaded the app and no patients have defaulted so far. The annual throughput of ophthalmic procedures combined is over 7000 and it is expected most of these patients would benefit from this app.
This pilot project, after maturation, has the potential to be extended to Ophthalmology Departments in other clusters and to other specialties with modifications of the software.