



**Service Priorities and Programmes**  
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**Innovating for Better Care: The use of Mobile Technology to Reduce Default and Cancellation Rates for Operations and Procedures**

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**Introduction**

Defaults and cancellations of scheduled operations and procedures waste valuable hospital resources, such as personnel, operating theatre and clinic time, lengthen waiting times, as well as indirectly prevent other patients' access to services. Studies found the most common reason for defaulting scheduled appointments was patients simply forgetting or there was a mix up over the date and time of the appointment. For cancellations, the most common reason cited was patients failing to follow pre-operative instructions such as stopping anticoagulants, and/or were medically unfit because patients failed to take routine medications such as anti-hypertensive medications.

**Objectives**

To provide People-Centred Care and improve effectivity in Professional Service delivery by the development a mobile app to reduce wastage caused by defaults and cancellations.

**Methodology**

Name of the mobile app is called i-Easy, which serves as a reminder and a communication system between the hospital and patients.

i-Easy is effective in providing People-Centred Care by meeting people's needs because:

1) i-Easy is a user-friendly application. Patient may view reminders for the scheduled appointments, instructions for starting and stopping pre-operative medications, as well as information concerning their disease condition, details of the operation / procedure including side effects and post-operative care;

2) Large volume of information, such as operative and procedural instruction sheets which help patients to better understand their conditions can be sent through the mobile app, and this information can be readily updated;

3) Patients can download the informative materials for review later, and hence achieve better knowledge retention, and to show these materials to family members, relieving them of the burden of repeating sometimes complicated explanations of their conditions;

4) Reminder and instruction messages are read out, this is particularly convenient for our target population who likely have visual impairment;

5) All communications are automatically saved on the app so patients may review them any time at their convenience.

i-Easy is also effective in delivering Professional Service by improving technology because:

1) Delivery of reminders / information through the mobile app is fast with virtually no delay;

2) Instant confirmation is possible with minimal effort as patients can reply through the mobile app itself. A follow-up phone call will be given to patients who do not reply, and for those who are unable to attend as scheduled, their appointments will be rescheduled to minimise wastage;

3) Development of the mobile app is relatively cheap compared to the savings incurred with minimal recurring costs.

### **Result**

The combined default and cancellation rate for scheduled operations and procedures was 2.0% in year 2016. After the launch of i-Easy on 5th January 2017, 1,416 patients have downloaded the app and no patients have defaulted so far.

Around 1.3% of patients did fail to acknowledge the reminder and follow-up phone calls were made. Appointments were rescheduled for those who were unable to attend.

The majority of ophthalmic operations / procedures are under Major I category, with an average cost of \$43,325 per operation / procedure as outlined in HA Gazette. The combined annual throughput of ophthalmic operations and procedures in the hospital is over 9,000. If this mobile app can reduce default and cancellation rates from 2.0% in year 2016 to close to zero, the estimated number of saved operations / procedures would be around 180, which translates to a saving of  $\$43,325 \times 180 = \$7,798,500$  per year.

i-Easy was awarded the GOLD prize (Mobile and Online Service category) in the Asian Hospital Management Award 2017. i-Easy was the only team from Hong Kong (in both public and private sector) awarded with such prize in the last 3 years. The i-Easy development team was also awarded CMC Outstanding Team in year 2017.