NTEC Operating Theatre Patient Location Update System (OTPLUS) -- using Innovation to extend People-Centered Care beyond the Operating Room

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Introduction
Despite the high standard of intraoperative care that HA hospitals have been providing, a simple method of providing information about patients undergoing operation to anxiously awaiting relatives has long remained elusive. Medical staff is often overloaded with clinical duties, and may not have the capacity to address the concerns of waiting relatives. The Operating Theater Patient Location Update System (OTPLUS) was developed to tackle this issue in a cost-effective way, while maintaining patient privacy.

Objectives
The aim of the NTEC OTPLUS was to engineer an innovative and convenient way of providing timely updates of patients’ statuses within the operating theater to patient’s relatives, without compromising patient privacy. In doing so, we wish to alleviate the anxiety of the relatives, and to reduce the workload of frontline staff who often deals with such enquiries.

Methodology
The OTPLUS team comprised of staff from the Department of Anaesthesia and Intensive Care, Operating Theatre, Surgical Wards, local/HAHO IT Team and Hospital Volunteers. This multidisciplinary conglomeration of professionals developed an enquiry system built upon the current HA Corporate Operating Theater Management System.

The team went through the permutations of possible clinical scenarios that a patient undergoing operation may experience, and assembled a workflow that accurately reflected the patient’s status within the operating theater. The HAHO IT Team
subsequently translated the workflow into programmable logic for implementation. Then, we developed a user interface for enquiry of patients’ statuses within the operating theater that is user-friendly, easily accessible, and allows for timely enquiry of patients’ statuses, while safeguarding the patients’ private information according to the Personal Data Ordinance. By using the Hospital Number of a patient, relatives can now make enquiries about the operative status at kiosks located outside OT, by manual input or barcode scanning. The OTPLUS system was rolled out in early August. Surveys were handed out to prospective users to gauge user acceptance.

**Result**
The surveys showed that 87.5% of users were satisfied with the system overall, while ease of use was rated high by 100% of the users. 90.1% of users felt well informed of the patients’ operative statuses, and 93.8% recommended extending OTPLUS to other hospitals. The overwhelming positive results showed that OTPLUS project has achieved its goals of extending patient-centered care beyond the operating room.