

**Patient Monitoring and Scheduling System – a Solution to Provide Safe Treatment to Right Patient***Lau M, Yue SY, Chan WC**Department of Occupational Therapy, Shatin Hospital, Hong Kong***Introduction**

Facing with an ever increasing turnover rate and increased fragility of inpatient in Shatin Hospital, finding an effective method to improve accuracy in treatment prescription and improving patient safety is always our utmost concern.

Recent advancement of technology empowers us to have an innovative idea in addressing this issue. In 2014, we work together with an IT company in designing and creating the patient monitoring and scheduling system (PMS). In this new project, we designed the layout and display of the hardware and laid down the simple logistic in operation while the company offers us the technical support in software and hardware development.

PMS is a computerised system for occupational therapist to manage daily treatment activities scheduling and provide vital signs monitoring for patients. When using PMS, patient's journey in occupational therapy starts from check-in to the system, implementation of training activities, vital signs real-time monitoring, to the precautions alert and check out. This system can also provide summary reports for therapist to review patient's progress and update treatment accordingly.

The developmental and preparation phase took about a year. In July 2015, we started to carry out a PMS trial run in one of our treatment rooms. After one month with almost daily updates, the programme started to run in a full time basis.

Currently we are developing the phase two PMS in other treatment rooms. From March 2016, PMS has replaced all paper activity cards in prescription of training. From now on, every detail about our patients, including their diagnosis, precautions, monitoring data, prescribed training and performance were stored in the hospital number as a barcode on their wristband.

**Objectives**

(1) To provide the right treatment to right patient within the right amount of time; (2) to minimise human error in vital data capturing; and (3) to improve efficiency and accuracy of treatment scheduling and monitoring.

**Major Components of PMS**

(1) Tablet PC for prescription of training, precautions and monitoring; (2) handheld barcode scanner for recap of prescribed instructions and data recording; (3) bluetooth gadgets for vital monitoring; (4) VGA TV for display of scheduling and monitoring information; and (5) back-end server for centralised data analysis and management.