Enhancement in Kowloon East Cluster Bed Booking System to Improve Clinical Efficiency

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Introduction
Kowloon east cluster (KEC) bed booking system is a clinical support system providing sub-acute bed booking and assigning functions. It was a standalone system found in 2010. Without interoperability, it relies on nursing staff to keep updating the patient status. Timely information is essential to the system to function. About 12%-15% of sub-acute beds are not utilized in 2014 & 2015 winter surge period. Forget to cancel booking for discharged patient and miss to check confirmed list are the common causes.

Objectives
1. To maximize the utilization of sub-acute beds by providing timely information. 2. To reduce the workload of frontline staff by streamlining workflow.

Methodology
The Medical and Geriatrics Department and the Information and Technology Department in the United Christian Hospital work on the enhancement of the bed booking system. The changes are as the follow:

1. Simplify account management
   a. account will be created for nurses by IT since they join UCH
   b. No need to manage user account when nurses rotate.  
   c. Booking can be done and displayed only on the computers with the same physical location of the patient.
2. System interface enhancement
   a. Add bed number field.
   b. Bed booking by only entering HKID or scanning the barcode
   c. Patient name, gender, age & bed number will be retrieved automatically by system.
   d. Booking record will be transfer to recipient ward automatically.
3. Once patient transferred is done in CMS
4. Time buffer for cancelling discharge patient from CMS
5. Bookings will be re-created for discharged patients
6. Updated every o’clock
7. Allow time buffer for correcting accidental discharge patient from CMS
8. System will cancel booking if cancelling discharge in CMS is done over the o’clock, the queue will remain unchanged.
9. Bed Notification
   a. Voice message will be sent to designated phone when bed available.

Result
User centered interface, simplified management, automated and inter-operable system greatly reduces the workload of management and frontier nurses. Bed resources can be better coordinated within cluster.