

The After-Hours Use of Rehab Department Rooms as ED Consultation Rooms: Improving Service Quality while Decreasing ED Overcrowding



Authors: Leslie Chia (Project Administrator), Lee Khai Pin (Medical Doctor), Lee Choy Kuan (Nurse Manager), Satyaki Sengupta (Rehabilitation Centre)

Background: KK Women's and Children's Hospital operates the busiest Emergency Department (ED) in the country of Singapore. Originally built to cater for 150 patients per day, it is now serving an average of 500 patients per day. The ED is located immediately beside the Rehab Centre, which runs regular working day hours and whose closure hours coincide with the peak periods in the ED.

Objective of Program: To turn around rooms in Rehab after close of rehab hours for use as ED consultation rooms, and revert usage as rehab rooms again on commencement of rehab hours, to ease the pressure on space in the ED.

Planning/Research Methods

Plan	<ul style="list-style-type: none">• Cross-department team: medical, nursing, operations support and admin staff• Drew up preliminary implementation proposal• Enterprise risk management review to ensure risks are adequately controlled
Do	Implementation (see section 5 below)
Check	<ul style="list-style-type: none">• Data collection/analysis• Monitor daily situation in the immediate post-implementation period
Act	Closed gaps and fine-tuned solutions

Implementation Methods

- Set patient safety as overriding consideration in the implementation of the project
- Defined criteria to activate Rehab for ED consultation
- Identified patient group appropriate for consultation in a location not set up for life-saving emergency interventions, stat medication, treatment orders and procedures, etc.
- Identified medical equipment, consumables, medication, etc. normally required for the identified patient group
- Addressed need for resuscitation in case of patient deterioration
- Established turnaround time for housekeeping, location set up and reinstatement

Results (26 January 2016 to 31 December 2016)

- Setup and ready for operation within 30 minutes of activation by senior doctor
- Increased productivity of "idle" clinic space by 27.1% (additional 3.8 operating hours/day)
- Estimated 19,022 persons diverted from the overcrowded primary ED location (namely, 5435 paediatric patients accompanied by 2 to 3 caregivers each)
- Appropriate and robust patient selection criteria
 - Only 7% sent back to the primary ED location for more appropriate care management
 - Only 6.4% admitted versus 17.45% admission rate in the primary ED location
 - No patient had a sudden deterioration in status such as to require resuscitation care
- Eradicated potential for cross-infection, breach of patient confidentiality, patient safety lapses and staff distraction for the 5435 patients seen in Rehab
- Staff satisfaction rated at 7.42 (on a scale of 1 to 10)
- 84.6% of staff assessed that there are no patient safety issues
- 91.4% of staff wanted the space-sharing arrangement to continue on a permanent basis

Contact: Ms Leslie Chia (leslie.chia.yip@kkh.com.sg), Dr Lee Khai Pin (lee.khai.pin@singhealth.com.sg)