HAC 2016 ABSTRACT for Oral Presentations

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Project title
Enhancing Management of "Category A" Emergency Operation Booking   to Optimize Care and Use of Scarce Resources – Pilot Study

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Keyword(s)
Emergency Operation
Category A
Modified Early Warning Scoring (MEWS)

Approval by Ethics Committee: N

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Introduction
In Hong Kong West Cluster, prioritisation decisions would be difficult in situations of multiple Category A emergency operation bookings due to tight operating theatre (OT) resources, limited OT sessions and great discrepancy in estimated time frames between Category A (<1 hour) and Category B (<12 hours) operations. To ensure effective use of OT resources and optimise care for patients requiring emergency operations, an initiative was implemented to better prioritise multiple Category A emergency operation bookings using Modified Early Warning Scoring (MEWS).

Objectives
To better prioritise and optimise care of patients in situations of multiple Category A emergency operation bookings.

Methodology
(1) Introduce MEWS in Operation Theatre Management System (OTMS) to identify category A patients requiring earlier operations   (2) Assess all booked cases on an ongoing basis for re-categorisation if required   (3) MEWS was used to facilitate prioritisation decision because of the following reasons: (a) Raised MEWS was associated with increased mortality in a group of patients requiring emergency operations. Calculation of MEWS could therefore be useful for identifying patients with highest risk of deterioration and making prioritisation decisions in order of performing emergency operations among Category A patients.   (b)MEWS can be used as objective reference to prioritise use of scarce OT resources in situations of multiple Category A patients awaiting emergency operations.   (c) MEWS can improve communication and cohesion among surgeons, anaesthetists and nurses in emergency teams to "flag-up" patients requiring immediately Category A emergency operation.

Result
From January 2015 to May 2015, 50 Category A patients were randomly selected for collection of MEWS and for emergency operations.   The result confirmed good correlation between MEWS and waiting time for Category A emergency operations.   Patients with higher MEWS showed a trend of shorter emergency operation waiting time; and patients who were originally booked as Category B and subsequently upgraded to Category A emergency operation also showed increasd MEWS due to deteriorating conditions.   Conclusion   MEWS has proven useful in identifying patients with high risk of deterioration.   It is effective in prioritising Category A emergency operations bookings and optimising use of scarce OT resources.