

Audit of Postoperative Critical Care Unit Admissions

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Introduction:

A shortage of ICU beds is increasingly common worldwide, and consequently many critically ill patients end up being cared for in less well-equipped hospital areas¹. The use of scoring systems to identify high-risk patients can help predict postoperative critical care requirement². This can give more time to optimise the allocation of critical care resources.

Objectives:

- To evaluate the availability of critical care beds for post-operative surgical patients in Beaumont Hospital and implications of bed shortages
- To determine the perioperative risk of patients admitted to critical care units from theatre

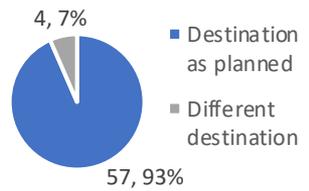
Method:

Theatre lists were assessed on the morning of surgery from 29th January to 5th March 2020, and planned admissions to critical care units recorded. The recovery room logbook and electronic critical care system (ICCA) were assessed postoperatively to determine actual postoperative destination. Patient medical and anaesthetic records were reviewed to compare preoperative and postoperative plan and reasons for changes to same, along with intraoperative data to calculate surgical Apgar scores (SAS).

Results:

Critical care beds in HDU, ICU, and Neurology ICU (RICU) were requested preoperatively for 61 patients.

62 patients required postoperative critical care admission.

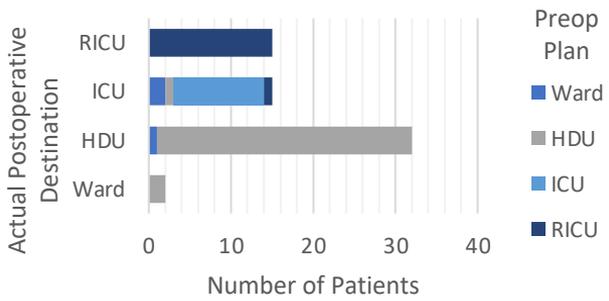


2 patients were admitted to a different critical care unit due to bed shortages.

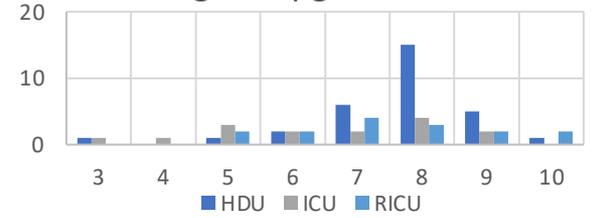
2 were instead admitted to high-dependency areas of surgical wards, with no documentation as to why.

3 patients had unplanned admissions to critical care units secondary to intraoperative complications.

Postoperative Destination



Surgical Apgar Scores



The average SAS was 8 in HDU, and 7 in ICU and RICU.

Discussion:

Bed shortages do impact upon the postoperative destination of patients, but efforts are made to ensure an appropriate level of care is provided. Documentation of beds requests, and the rationale behind postoperative destination, is lacking. This can leave anaesthetists exposed to medico-legal issues, and may affect the assessment of future critical care bed supply and demand. Integrating scoring systems such as the SAS into anaesthetic records can allow identification of high-risk patients.

References:

- Y.U. Bing-Hua. Delayed admission to intensive care unit for critically surgical patients is associated with increased mortality. The American Journal of Surgery 2014, Volume 208, Issue 2, Pages 268-274.
- Glass NE, Pinna A, Masi A, et al. The surgical apgar score predicts postoperative ICU admission. J Gastrointest Surg. 2015;19(3):445-450.