

00228 **Impact of Surgical Intensive Care Unit (SICU) Liaison Service on Re-admissions to SICU: A Pilot Study**

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Aims: The purpose of the study was to evaluate the impact of a new liaison service on SICU re-admission rates for patients discharged from SICU.

Methodology: A time series study of 24 months was used to compare the impact of the introduction of a new liaison service on SICU re-admission rates, median days of ICU step down and mortality rates. Demographic data were collected and analyzed using SPSS. Re-admission basis was qualitatively categorized into four classes: (1) Same diagnosis or disease process precipitating the second admission (2) Secondary related diagnosis (3) Acute onset of new disease process (4) Exacerbation of chronic disease.

Result: There were 531 and 567 ICU admissions before and after introduction of the liaison service respectively. No significant reduction in SICU re-admission rate was observed, with 46 cases (8.6%) before and 46 cases (8%) after commencement of the service. In the readmission group, after introduction of the liaison service, there was a 41% decrease in the median days of ICU step down (8.5 vs 5days). This was due to early detection of risk for deterioration and planned re-admission to SICU. In addition, ICU mortality rate decreased by 8% (17% vs 9%) and overall hospital mortality rate decreased by 17% (41% vs 24%, p-value <0.075) in the re-admission group. Despite the mean APACHE II score increased from 15 to 20, indicating illness severity, mortality rate was decreased by almost half. However, these observed better patient outcomes did not translate to statistical significance in re-admission rate, the median days of ICU step down, ICU mortality and hospital mortality. The most common reason for readmissions was due to respiratory dysfunction (n=37).

Conclusion: With early detection of patient deterioration, the liaison service has improved patient survival rate. Although the results are not statistical significant, there are clinical benefits for patient outcomes.