Does the "weekend effect" exist in those patients that require emergency laparotomy?

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Aims: Multiple studies have concluded that the "Weekend effect" results in worser outcomes for patients admitted during the weekend, when compared to weekday admissions. Patient presenting that require emergency laparotomy are, by default, high risk. It may be assumed that their risk of death is higher should they present during the weekend. The aim of this study was to identify if this cohort of admissions is at an increased risk of death should they present at the weekend.

Methods: All patients entered into the National Emergency Laparotomy Audit database from December 2013 up to and including November 2017 from two independent acute hospitals were included. Adjusted regression analysis (NELA risk score, grade of surgeon and anaesthetist, post-operative admission to critical care and procedure performed) was performed investigating the association between day of admission to hospital and 60-day post-operative mortality. Sunday was used as comparator variable.

Results: Study cohort included 1346 patients, overall 60-day inpatient mortality was 9.63% (134 patients). Following risk adjustment there was no increased risk of mortality when investigating day of admission to hospital; Monday Odds Ratio (OR 1.60, 95% Confidence Intervals (CI) 0.69-3.71), Friday (OR 2.01, 95% CI 0.85-4.7).

Conclusion: Risk of death in those that require emergency laparotomy is not affected by day of presentation to hospital.