

EP.FRI.496

**Does hospital volume effect time to theatre in patients undergoing emergency laparotomy? A retrospective analysis of NELA data**Stefan Tucker<sup>1</sup>, Lachlan Dick<sup>1</sup>, Fiona Bairstow<sup>2</sup>, James Green<sup>1</sup>, Jamie Young<sup>1</sup><sup>1</sup>Department of General Surgery, NHS Borders, <sup>2</sup>University of St Andrews

**Aims:** Delays to theatre in patients undergoing emergency laparotomy are associated with poorer outcomes. It is unclear whether hospital volume impacts arrival to theatre within a time appropriate to urgency. We aimed to determine the association between hospital laparotomy volume and time to theatre for patients undergoing emergency laparotomy.

**Methods:** The National Emergency Laparotomy Audit aggregate hospital reports from years 1 – 6 were used to extract data relevant to the study aims. Hospitals were categorised into high, medium and low volume using inter-quartile ranges, with each year counting as a single episode. Statistical analysis was used to determine if there is a difference in arrival to theatre within a time appropriate to urgency.

**Results:** A total of 751 episodes were included, representing 193 high volume, 370 medium volume and 188 low volume hospitals. The mean proportion of patients arriving to theatre within a time appropriate to urgency were 81.5%, 83.5% and 85.3% respectively. There was no statistical difference between low to medium volume hospitals however, there was when comparing medium to high volume ( $p = <0.05$ ) and low to high volume ( $p = <0.05$ ) hospitals.

**Conclusion:** Hospitals with low and medium emergency laparotomy volumes have fewer delays to theatre. Whilst it is likely to be multifactorial, it is important for hospitals to have efficient patient pathways in place to reduce delays.