

## AB067. Frailty and emergency abdominal surgery: a systematic review

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**Background:** At present, patients aged  $\geq 65$  years account for approximately 50% of all emergent operations and 75% of post-operative mortality. In the emergency setting, there is often no time for the detailed treatment of comorbidities, changes in medication or preoperative rehabilitation. Studies have reported on the use of frailty as a prognostic indicator in patients undergoing elective surgery. To date, similar data does not exist for patients undergoing emergency abdominal surgery.

**Methods:** A systematic review was undertaken. An electronic search for relevant publications was performed using the PubMed database from 2009–2019. The following search headings were used: “frailty” and “emergency general surgery” or “emergency laparotomy”. Articles were excluded if frailty was not measured using a frailty tool, or if

patients did not undergo emergency abdominal surgery.

**Results:** The search yielded sixty-one papers. Following application of inclusion and exclusion criteria, seven studies incorporating 78,964 patients were included in the final systematic review. The mean age ranged from 64 to 79 years. The prevalence of frailty ranged from 20% to 60.3%. The 30-day mortality rates ranged from 3% to 44%. An increasing frailty score was associated with increased risk of post-operative complications and mortality across all studies.

**Conclusions:** There was strong evidence to suggest that frailty in the elderly population predicts post-operative mortality, complications, prolonged length of stay and the loss of independence. Targeting potentially modifiable aspects of frailty preoperatively or introducing a frailty pathway may improve outcomes. Frailty scoring should be integrated into acute surgical assessment practice to aid decision-making and development of novel postoperative strategies.

**Keywords:** Ageing; frailty; emergency general surgery; emergency laparotomy

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