

**Multidisciplinary perioperative protocol in patients undergoing acute high-risk abdominal surgery.**

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Foss NB(2); AHA study group. Br J Surg. 2017 Mar;104(4):463-471. doi: 10.1002/bjs.10427. Epub 2017 Jan 23.

**BACKGROUND:** Acute high-risk abdominal (AHA) surgery carries a very high risk of morbidity and mortality and represents a massive healthcare burden. The aim of the present study was to evaluate the effect of a standardized multidisciplinary perioperative protocol in patients undergoing AHA surgery.

**METHODS:** The AHA study was a prospective single-centre controlled study in consecutive patients undergoing AHA surgery, defined as major abdominal pathology requiring emergency laparotomy or laparoscopy including reoperations after elective gastrointestinal surgery. Consecutive patients were included after initiation of the AHA protocol as standard care. The intervention cohort was compared with a predefined, consecutive historical cohort of patients from the same department. The protocol involved continuous staff education, consultant-led attention and care, early resuscitation and high-dose antibiotics, surgery within 6 h, perioperative stroke volume-guided haemodynamic optimization, intermediate level of care for the first 24 h after surgery, standardized analgesic treatment, early postoperative ambulation and early enteral nutrition. The primary outcome was 30-day mortality.

**RESULTS:** Six hundred patients were included in the study and compared with 600 historical controls. The unadjusted 30-day mortality rate was 21·8 per cent in

the control cohort compared with 15.5 per cent in the intervention cohort (P = 0.005). The 180-day mortality rates were 29.5 and 22.2 per cent respectively (P = 0.004).

**CONCLUSION:** The introduction of a multidisciplinary perioperative protocol was associated with a significant reduction in postoperative mortality in patients undergoing AHA surgery. NCT01899885 (<http://www.clinicaltrials.gov>).