

SP4.1.3**The effect of the Covid-19 pandemic on case selection and perioperative outcomes of emergency laparotomies: a UK-based multicentre cohort study**

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Aims: Evaluating the effect of Covid-19 on case selection and perioperative outcomes of emergency laparotomies across South West London (SWL).

Methods: A retrospective cohort study including all emergency laparotomies performed at three SWL-based NHS hospitals from 01/04/2020-31/12/2020 (i.e., "pandemic" cohort; from the first national lockdown), versus a "pre-pandemic" cohort (01/04/2019-31/12/2019). Data was extracted from the NELA database and hospital records, and analysed by two independent clinicians.

Results: 414 patients met the inclusion criteria. 17.6% fewer (227 vs. 187) laparotomies were performed during the pandemic period. There were no significant sociodemographic differences between cohorts (mean age 64.5 vs. 62.7 years, $p=0.284$; M:F ratio 1:1.154 vs. 1:0.928, $p=0.221$). Pre-operative NELA risk scores were higher before the pandemic (mean 13.05% vs. 9.55%, $p=0.020$). The commonest indication for laparotomy in both cohorts was small bowel obstruction (32.6% vs. 37.4%), treated most commonly with adhesiolysis. Postoperatively, fewer patients received HDU/ITU care during the pandemic than before (ward-based recovery 4.7% vs. 13.8%, HDU/ITU recovery 93.4% vs. 79.4%, $\chi^2=15.4$, $p<0.005$). Mean duration of ITU stay was significantly shorter during the pandemic (4.5 vs. 2.7 days, $p<0.005$), as was total length of inpatient stay (20.2 vs. 14.3 days, $p=0.0156$).

Conclusions: The overall reduction in emergency laparotomies observed during the pandemic period was potentially secondary to tighter case selection guided by objective risk stratification. Fewer patients were recovered postoperatively on HDU/ITU, and patients were generally discharged from hospital earlier. Such trends in perioperative care served to support organizational prioritization in response to Covid-19 service provision.