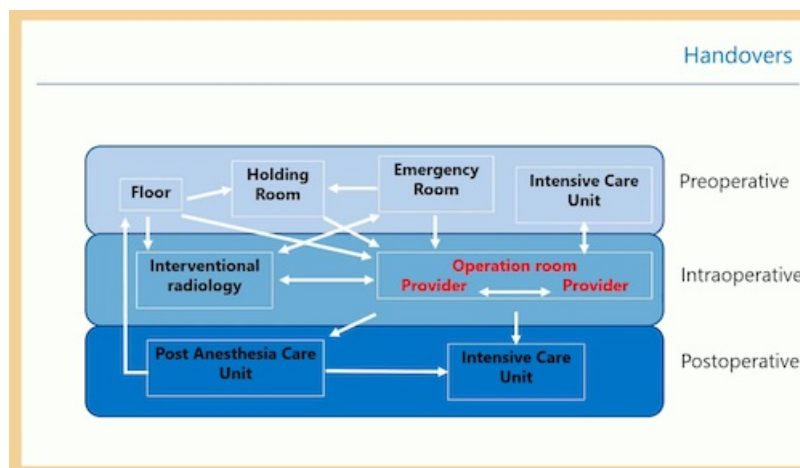


#EA22: Impact of Anaesthesia Handover on Morbidity and Mortality



What is the effect of intraoperative handover of anaesthesia care on clinical outcomes? This was discussed in a very interesting session at Euroanaesthesia Congress this week. Prof Melanie Meersch-Dini of University Hospital Münster, Germany, reviewed the findings from the HandiCAP trial, published this week in JAMA.

Intraoperative handovers of anaesthesia care are quite common. While handovers might improve care by reducing physician fatigue, there is also a risk of losing critical information. In addition, observational analyses report that there might be an association between handover of anaesthesia care and adverse events, including higher mortality.



The HandiCAP trial is the first to address the effect of intraoperative handovers of anaesthesia care on mortality, readmission, or postoperative complications among adults. The study was conducted in 12 German centres. Patients were enrolled between June 2019 and June 2021, with a final follow-up on July 31, 2021. Study participants had an American Society of Anesthesiologists physical status 3 or 4 and were scheduled for major inpatient surgery of at least two hours.

One thousand seven hundred seventy-two participants were included in the study. They received either a complete handover to receive anaesthesia care by another clinician or no handover of anaesthesia care. The participating institutions used no standardised handover protocol. The primary outcome of the study was a 30-day composite of all-cause mortality, hospital readmission, or serious postoperative complications. In addition, there were 19 secondary outcomes that included ICU and hospital lengths of stay.

The median total duration of anaesthesia was 267 minutes, and the median time from the start of anaesthesia to the first handover was 144 minutes in the handover group. The primary outcome occurred in 30% of the patients in the handover group and in 33% of patients in the no-handover group. 2.1% of patients in the handover group and 3.4% of patients in the no handover group experienced all-cause 30-day mortality. 13% of patients in the handover group were readmitted to the hospital compared to 16% in the no-handover group. 22% of patients in both the handover and no-handover groups experienced serious postoperative complications. No significant differences were observed in the 19 secondary endpoints.

Results of the study show that the primary outcome of mortality, readmission, or serious postoperative complications within 30 days did not differ significantly among participants randomised who received handover of anaesthesia care vs those who had no handover of care. These findings show no major difference between handover of anaesthesia care compared with no handover of care on postoperative morbidity and mortality among patients undergoing extended surgical procedures.

The HandiCAP trial is the first large randomized clinical trial that

- shows no adverse effects of handovers of anesthesia care as compared to no handovers in patients with ASA physical status 3 to 4
- short-term outcomes are also not different between the two groups
- shows higher incidence of postoperative adverse outcomes with increasing surgical time but no difference between handover and no handover

Source: [Euroanaesthesia Congress 2022; JAMA](#)

Image Credit: Prof Melanie Meersch-Dini's presentation @EA22

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