

Is there a change in anaesthetic technique used for abdominal surgery in Sweden between the two years 2015 and 2018?

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Introduction: Abdominal surgery is commonly performed under balanced general anaesthesia. General anaesthesia can be maintained with either inhalational or total intravenous anaesthesia (TIVA). Several studies address benefits and disadvantages of the techniques but there is no firm evidence showing either are preferable.

Aims: The aim of this study was to assess the change in anaesthetic technique used during abdominal surgery in Sweden between the years 2015 and 2018.

Material and Methods: This was a register study using Swedish Perioperative Register (**SPOR**) and included patients that underwent abdominal surgery between 2012 and 2018. Anaesthetic techniques were identified with classification of care actions (KVÅ)-codes. Patient demographics and perioperative observations were collected, and annual cohorts were generated to assess the difference between 2015 and 2018.

Results: 26.868 patients were included, and inhalational anaesthesia was used for the majority of the procedures in the register. There was an increased use of TIVA from 14% in 2015 to 20% in 2018 ($p < 0.001$) and no obvious patient profile could explain this increase. A difference in use of TIVA was found with a range from 2% to 99% when comparing 21 hospitals in SPOR.

Conclusions: There was an increased use of TIVA that could not be explained by any obvious patient profile. It seems that TIVA's benefits for postoperative nausea and vomiting (PONV) and neurocognitive side-effects are not taken into consideration when deciding anaesthetic technique. There were striking differences in the use of TIVA between hospitals, suggesting that hospital policy is of more importance than patient profile.

Keywords: Anaesthesia, Total intravenous anaesthesia, Inhalational anaesthesia, Anaesthetic choice