Introduction

Capnography measures the end-tidal CO2 which may lead to an earlier detection of respiratory compromise compared to pulse oximetry.

Due to the earlier detection meta-analyses show a reduced incidence of respiratory compromise (Figure 1).

In the UK physician-led sedation is common practice, leading to a need of accurate feedback during the procedure.

Quality improvement initiatives (QIs) are a cooperative effort between hospitals and manufacturers to introduce or expand the use of potentially beneficial innovative technologies at a reduced risk for both sides.

One such QI was launched to expand the use of Capnography at Cambridge University Hospitals NHS Foundation Trust.

Setting

Methodology

Minor risk descriptors
- Oxygen desaturation (75-90% for <60s)
- Bradycardia
- Tachycardia
- Apnoea, not prolonged
- Airway obstruction

Sentinel risk descriptors
- Oxygen desaturation, severe (>75% at any time or prolonged <90% for >60s)
- Apnoea, prolonged (>60s)
- Cardiovascular collapse/shock
- Cardiac arrest/absent pulse

Results

With capnography monitoring, a 24.7% reduction in adverse events was recorded in the GI, IC, and RM services support including capnography monitoring in the hospital's sedation guidelines.

Conclusion

With capnography monitoring, a 24.7% reduction in adverse events was recorded in the RM service during bronchoscopies. GI, IC, and RM services support including capnography monitoring in the hospital’s sedation guidelines.

Disclosure

JL, GC, PP, TCS, and DMR have nothing to disclose. RTT is an employee of Coreva Scientific, which received consulting fees from Medtronic during the conduct of the study. CL is an employee of Medtronic UK, the funder of this study. AP reports non-financial support from Medtronic, in form of provision of monitors and training during the conduct of the study.