Tea Trolley Training

Royal United Hospitals Bath
NHS Foundation Trust

Capnography: Sustained Exhaled Carbon Dioxide

Introduction

Glenda Logsdail was anaesthetised for an emergency laparoscopic appendicectomy in 2020. An unrecognised oesophageal intubation resulted in a period of prolonged hypoxia, and she died of irreversible hypoxic brain injury [1]. The inquest determined that her death was avoidable, and the coroner issued a Regulation 28 Prevention of Future Deaths report. This highlighted the importance of the whole intubation team being able to recognise and interpret capnography waveforms, and the need to actively exclude oesophageal intubation. The importance of a flat team hierarchy and team members feeling empowered to speak up and be listened to was also reported by the coroner [1] .

The "No trace=Wrong place" campaign by the Royal College of Anaesthetist and the Difficult Airway Society emphased that oesophageal intubation must be actively excluded if a flat capnography trace is seen [2] However, due to concerns that in some cases of oesophageal intubation the capnograph trace has not been flat, but instead attenuated and abnormal, The Project for Universal Management of Airways (PUMA) consensus guidelines for the prevention of unrecognised oesophageal intubation's, emphasise **"sustained exhaled carbon dioxide"** as the test to exclude potential oesophageal intubation. If this is not achieved remove the tube unless dangerous and ventilate with facemask or supraglottic airway. [3]. If it is not safe to remove the tube oesophageal intubation should be excluded by repeat videolaryngoscopy by two people AND one of (a) bronchoscopy to visualise the tracheal rings/carina (b) expert ultrasound (c) use of an oesophageal detection device.

Learning Objectives

1. To improve the multidisciplinary team's (MDT) ability to interpret the capnography trace and different waveform shapes
2. Emphasise the significance of the features of sustained exhaled CO2
3. Empower the MDT to speak up and act if sustained CO2 is not observed.
4. To understand what tea trolley training [4] is and how it can be utilised for MDT capnography teaching
5. To be able to implement tea trolley training and collect meaningful feedback

References

1. https://www.judiciary.uk/publications/glenda-logsdail-prevention-of-future-deaths-report/(Accessed 19/2/22)
2. https://www.rcoa.ac.uk/news/rcoa-das-response-glenda-logsdail-ruling (accessed 19/2/22)
3. https://www.judiciary.uk/wp-content/uploads/2024/07/2024-0389-Response-from-Associationof-Anaesthetists-RCOA-and-Faculty-of-Intensive-Care-Medicine-Joint-Respons.pdf (Accessed 28/10/25)
4. O'Farrell G, McDonald M, Kelly FE. 'Tea trolley' difficult airway training. Anaesthesia 2015; 70: 104