sessions were conducted from March to July 2019, in which a short lecture and a live demonstration were given, followed by hands-on practice by the participants. The participants were trained on cannula cricothyrotomy with Melker conversion, jet oxygenation through cannula cricothyrotomy, and scalpel–bougie cricothyrotomy. All participants were given a pre- and post-training survey form to complete. Ethics approval was not required as advised by the institutional review board.

Fifty-four anaesthetists participated in the refresher training with years of anaesthetic experience from fewer than five to more than 10. Only one person had previously performed an emergency front-of-neck access. We evaluated their confidence in performing the various CICO techniques before and after the training, on a scale of 1 (not confident at all) to 5 (extremely confident). The results are illustrated in Figure 6. Feedback was favourable and the participants were keen for such CICO refresher sessions to be conducted regularly.

Although CICO crises are rare, it is crucial that anaesthetists maintain the knowledge, decision-making, and procedural skill sets to perform emergency cricothyroidotomies quickly and safely. Moving forward, we aim to enhance the training using different airway models to simulate difficult airway anatomy, and to integrate it with simulation software providing real-time dynamic changes in oxygen saturation to make the scenarios more realistic.

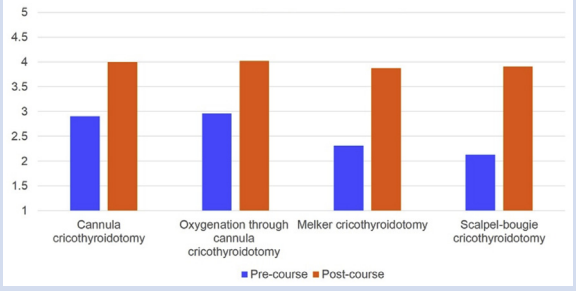

Fig. 6 Pre- and post-course confidence levels in performing emergency cricothyroidotomy.

References

1. Heard AM, Green RJ, Eakins P. *Anaesthesia* 2009; **64**: 601–8

Randomised comparison of the clinical performance of Ambu Auragain and Teleflex LMA Protector

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This study was designed as a prospective randomised clinical study comparing two supraglottic airway (SGA) devices, the Ambu Auragain and the Teleflex LMA Protector, in elective patients with normal airway anatomy. Device characteristics evaluated were SGA insertion, functionality of SGA as a ventilatory device and as an intubation conduit, functionality of the gastric drainage channel, and oropharyngeal leak pressure (OLP). Additionally, a fibreoptic assessment, utilising the Ambu aScope 3 Slim, of the glottic view via the SGA device and signs of airway morbidity were investigated. The primary outcome was successful SGA insertion on first attempt, whereas secondary aims were SGA insertion time, number of insertion attempts, ease of SGA insertion, rate of successful ventilation and intubation (by using the SGA as an intubation conduit), anatomical fit of SGA (displacement, bloodstaining), and fibreoptic assessment of the glottic view via the SGA device.

Patients included in this study were adult surgical candidates, ASA 1–3, age >18 yr, Mallampati I–III, BMI $\leq$ 30 kg m^{-2}. The exclusion criteria included: ASA 4–5, age <18 yr, surgery in the prone position, planned operating time >4 h, high risk of regurgitation, exhibition of respiratory tract pathology, or preoperative sore throat. Once informed consent was obtained (IRB #2017-0449), the randomisation process was performed using an institutional software, CORe (Clinical Oncology Research System).

In total, 53 patients were included in this study. The overall success rate of device insertion on the first attempt was 92%. The success rate was higher in the Ambu Auragain group than in the LMA Protector group (96% *vs* 88%, respectively; difference=0.09; 95% confidence interval [CI] [−0.06, 0.23]; $P = 0.260$). All patients in the Ambu Auragain group exhibited a POGO score of 100%, whereas patients in the LMA Protector group achieved a POGO score of 83% ($P = 0.046$ Fisher's exact test). There was no significant difference in the time to place the tracheal tube (~90 s for both groups) or reported ease of use. Passage of a 16F gastric tube was significantly easier in the Ambu Auragain group (P=0.01; 100% *vs* 86% in LMA Protector group); there were six failures and one gastric tube passage with resistance in the LMA Protector group.

This study showed that both the Ambu Auragain and the LMA Protector have a high successful first attempt placement success rate. In general, the Ambu Auragain had better performance scores and fewer adverse events, as compared with the LMA Protector. Future study is warranted in a larger patient population and in patients at higher risk for difficult airway management.

Does infrared red intubation system improve the fibreoptic intubation conditions? A randomised control trial

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National Audit Project 4 (NAP4) identified cases where fibreoptic intubation (FOI) was indicated but not performed, and recommended that this technique be used more widely by anaesthetists.[1] The infrared red intubation system (IRRIS) is a small device which is placed in front of the neck and emits infrared light through the cricothyroid membrane that can be seen in the glottis by a fibreoptic camera. Kristensen and colleagues[2] performed a small retrospective case series in patients with difficult airways and found the device was of assistance in performing FOI. The Difficult Airway Society has developed an