Simulating high-fidelity emergency front-of-neck access: Training in an obstetric setting

With the challenges associated with intubations in the obstetric population, and the recommendation for emergency front-of-neck access (eFONA) training following the Fourth National Audit Project (NAP4),[1] we welcome the article by O'Sullivan and colleagues.[2] We would like to first congratulate the authors on this study and for raising awareness on the current limitations in training anesthetists for cannot intubate, cannot oxygenate (CICO) scenarios. The study found that their proposed training modality improves participants' confidence in performing eFONA and improves cricothyroidotomy time.

Although the incidence of CICO is rare, it is a life-threatening situation, which must be resolved within minutes to save the patient's life.[3] eFONA is the final step in the Difficult Airway Society (DAS) difficult intubation guidelines for the management of a CICO situation.[1] However, despite the life-saving potential and the recommendations for eFONA training following the NAP4 study, there remains a lack of training and confidence in performing eFONA among anesthetists.[2] There is also insufficient guidance on the frequency or methods for formal training on eFONA in the UK.[1] This study has proposed and demonstrated the efficacy of a training format to address this.

As acknowledged by the authors, the sample size of participants was small, and thus, the study lacked statistical power. Despite this, the study demonstrated improvements in time to complete a successful cricothyroidotomy and participant's confidence in performing the procedure.

The authors claim that their training format also improved participants' ability to identify when surgical cricothyroidotomy is indicated. However, this was only measured through self-reporting and was not measured objectively as no decision-making was required by the participants. With the NAP4 report listing–decision-making as one of the numerous issues with eFONA,[1] we would encourage future studies to include this as a measurable variable.

In addition, the authors claim that all participants' confidence levels in correctly identifying anatomy improved. However, we were surprised that there was no improvement in the ability to

identify the cricothyroid membrane after the training. There is no description of the methodology of how this variable was recorded. There is also no mention of whether this was assessed during the repeat assessment. Accurate identification of the cricothyroid membrane is a crucial step in successfully performing eFONA. As such, we are confused as to how 82% and 94.1% of participants successfully performed a surgical cricothyroidotomy pre- and post-intervention, yet only 47% of participants could identify this anatomical structure. We wonder whether the authors may be able to provide any clarification regarding this, and we would like to emphasize the importance of accurately identifying the cricothyroid membrane during eFONA to avoid complications such as device misplacement, damage to local structures, and hemorrhage.[1,3]

This study has highlighted the lack of training for performing eFONA in CICO situations, and we agree that regular training would benefit those working in obstetrics and operative anesthetics, as well as emergency medicine. We hope that this study will be a catalyst for the development and introduction of mandatory regular training programs once an optimal training interval has been demonstrated.

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Conflicts of interest
There are no conflicts of interest.

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References

1. Price TM, McCoy EP. Emergency front of neck access in airway management. BJA Educ 2019;19:246-53.
2. O'Sullivan M, Gaffney S, Free R, Smith S. Simulating high-fidelity emergency front-of-neck access: Training in an obstetric setting. Saudi J Anaesth 2023;17:12-7.
3. Okada A, Okada Y, Kandori K, Ishii W, Narumiya H, Iizuka R. Adverse events of emergency surgical front of neck airway access: An observational descriptive study. Acute Med Surg 2022;9:e750. doi: 10.1002/ams2.750.