In our tertiary head and neck centre we increasingly use the Optiflow device to deliver high-flow nasal oxygen (HFNO) in spontaneously ventilating patients1or to provide trans-nasal rapid insufflation ventilatory exchange (THRIVE)2in apnoeic, anaesthetised patients. Despite instituting regular departmental workshops, there were anecdotal reports of variable practice and incorrect usage of Optiflow. We aimed to assess anaesthetists’ knowledge and competence before and after bespoke training.

We instituted a ‘tea trolley’ approach 3, opportunistically assessing and teaching anaesthetists on a 1:1 basis during their working day. To assess both knowledge and competence in their use of the Optiflow, colleagues were first asked to complete a standardised questionnaire and then demonstrate how they would deliver HFNO and THRIVE on a mannikin. When deficiencies in knowledge or skills were identified, anaesthetists were coached to improve their Optiflow use and standardise practice. At the end of the teaching session, a guide to Optiflow was provided to consolidate knowledge. To assess the efficacy of this approach anaesthetists were asked to demonstrate the safe use of Optiflow to deliver both HFNO and THRIVE on a mannikin two weeks after the training exercise.

Data analysis was performed with the Chi Squared test. Nineteen consultants and ten trainee anaesthetists were included in theproject, with globally positive feedback on the style of teaching. There was excellent knowledge on the use of Optiflow for HFNO (100%), however only20% of individuals understood how to safely deliver THRIVE. Of those reassessed, there was a statistically significant improvement in how to initiate and correctly test airway patency for THRIVE from 26% to 68% (Chisquared¼6.7556, p-value<0.001).

Despite the short interval between visits, five anaesthetists reported subsequent successful use of Optiflow. When used correctly the Optiflow is a valuable tool to improve oxygenation and prolong apnoeic time in high risk patients. Bespoke ‘Tea-trolley’ training improved knowledge retention and standardised Optiflow usage for both HFNO and THRIVE amongst Aintree anaesthetists. We recommend that anaesthetic departments measure THRIVE competence and, if deficiencies are identified, provide similar bespoke training for consultant and trainee anaesthetists

References

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