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NEONATAL AIRWAY TRAINGING (NAT) COURSE: DEVELOPING A NATIONAL TECHNICAL SKILLS AND TEAMWORK COURSE TO MANAGE NEONATAL EMERGENCIES

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Introduction and aims

Neonatal airway management is universally challenging. Paediatricians have minimal formal airway training in their curriculum and anaesthetists have limited exposure to neonates, yet both specialties are frontline in managing stressful and time-critical situations.

A cross-specialty course delivering neonatal airway training was set-up at Leeds Children's Hospital in 2015, aiming to improve skills in managing this vulnerable patient population. Feedback from candidates has been unanimously positive. The course has given a national need to address neonatal airway education and has been subsequently launched at a second centre, Great Ormond Street Hospital (GOSH).

Methods

The course consists of lectures (anatomy, physiology, pharmacology and 'the difficult airway'), basic and advanced airway skill stations including the use of videolaryngoscopy and tracheostomy management, and high fidelity simulated emergencies. With a clear focus on skill competence and developing human factors, the small group teaching optimises learning. The course is approved for CPD activities from both Royal Colleges. Candidates complete a pre and post course questionnaire (5-point likeart scale; not at all to very confident) to critically self-evaluate learning.

Results

To date, 127 candidates have completed the course (87 Leeds, 30 GOSH). All candidates improved globally, with mean skill scores increasing by at least 1 point. The greatest improvement was seen in advanced skills. All delegates felt the course addressed training gaps and fostered enjoyable cross-specialty learning. Paediatricians felt it so valuable as to be compulsory for ST3 trainees.

Discussion and conclusion

The first of its kind, NAT leads the way in addressing neonatal airway management training. Feedback from delegates and faculty consistently demonstrates improved knowledge, team-work and situational awareness in addition to the technical skills it was initially designed to focus on.

Several candidates expressed interest in setting up NAT at their institutions. They have revisited the course as observers and we are working collaboratively with planned expansions of the NAT course in several new centres both in the UK and Canada.

Dedicated time for focused skill learning and simulation is increasingly recognised as a fundamental part of medical training. The NAT course addresses these gaps for the neonatal population. It is unique, with clear mandate that it is robust, easily reproducible and locally adaptable.

Future considerations aside from centre expansion are the hope to work with other societies to develop and teach neonatal airway algorithms and formalise the NAT course as part of training curricula.