Paediatric Educators’ Special Interest Group

1031 SIMULATION TRAINING FOR VIDEO LARYNGOSCOPY FOR NEONATAL INTUBATION

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Background
Around 1 in 100 neonates are born requiring extensive resuscitation, including intubation.1 Neonatal intubation is traditionally taught using direct laryngoscopy (DL), and the RCPCH paediatric curriculum emphasises that trainees should be capable of bag/mask ventilating and endotracheal intubation of a neonate. In anaesthetic practise it is encouraged to plan for failure and consider alternate laryngoscopy methods if initial intubation is unsuccessful. Video laryngoscopy (VL) may allow faster time to best view and better views compared to direct laryngoscopy (DL) during intubation of the anatomically normal neonate.2 Furthermore, VL can be effective for training purposes allowing real time feedback from senior colleagues and quicker acquisition of intubation skills.3

Objectives
The primary objective is to educate paediatricians to use VL. The secondary objective is to assess change in opinions and confidence in VL following simulation training.

Methods
Within a district general hospital, 17 participants including 12 paediatric trainees and 5 non-trainee participants (consultants, physicians associates and medical students). Each participant completed a pre and post simulation questionnaire, which included assessment of prior VL education and experience, understanding of planning for failure and confidence in VL technique. Low fidelity simulation training of VL (Mac-Grath) and airway adjuncts was undertaken by paediatric and anaesthetic colleagues.

Results
Of the participants, 8/17 (47%), including only 3/12 (25%) of the trainee group, had received previous training in VL, and 5/17 (29.4%) had previously used VL during real time intubation. In the pre-education group, 4/17 (23.5%) preferred initial intubation attempts using VL, which increased in post education group to 8/17 (47%). In the pre-education group, 6/17 (35.2%) stated they would choose VL for second intubation attempt, which increased in the post-education group to 15/17 (88.2%). In the pre-education group 4/18 (23.5%) stated they would be confident in using VL for second intubation attempt, which increased to 13/17 (76.4%) in the post-education group.

Conclusions
VL is a beneficial tool for neonatal intubation and non-invasive surfactant administration, and is a useful for allowing real-time feedback on the procedural skills from a supervising senior. In our study, we demonstrated that VL training and experience wasn’t extensive, and following a short education programme, confidence and enthusiasm for VL increased.

REFERENCES