Principles of anaesthetics: Difficult airway management

The following extract is from **Standards and Recommendations** for Safe Perioperative Practice (Fifth Edition), published by The Association for Perioperative Practice.

STANDARD

There is a recognised system in place to manage the patient at risk or presenting with a pre-assessed or unanticipated difficult airway. Multidisciplinary teams will receive training on the actions required and the use of equipment in the emergency airway situation.

In the United Kingdom guidelines are produced and freely available from the Difficult Airway Society (DAS) (www.das.uk. com) and should form the basis of all local policies according to their current recommendations. NAP4 (RCoA 2011) was a national audit undertaken on the management of the difficult airway and recommended the availability of high quality guidelines from specialist organisations are available together with the designated equipment to enhance safe management of these situations.

RECOMMENDATIONS FOR LOCAL POLICY

Management

7.13.1 There must be an allocated lead individual within the department to co-ordinate equipment and education and training for the management of difficult airway in liaison with the multidisciplinary teams involved.

7.13.2 Airway assessment and planning, and access to pre-assessment services, must be available to all areas undertaking anaesthetic procedures (e.g. cardiac interventions suites, obstetric departments) and in liaison with anaesthetic management.

7.13.3 Staff must be aware of the location and contents of the difficult airway equipment resources, which will include an equipment trolley, flexible fibreoptic laryngoscopes and video laryngoscopes. These may be placed in joint access areas dependent on local risk assessment of need.

7.13.4 Clear signage (ISO standard) of the location and or directions to the location of difficult airway management equipment should be clearly displayed within the organsation and can be accessed from the DAS website (https://www.das.uk.com/ content/anaesthetic-emergency-signage).

7.13.5 Guidelines for the management of difficult airway should be developed using specialist society guidance and accompany all the equipment provided for this situation.

7.13.6 Guidelines should include policies for the management of airway situations to include but not limited to:

- Fibreoptic guided tracheal intubation supraglottic devices and intubation catheters (e.g. Aintree intubation catheter)
- Paediatric difficult airway

- Extubation guidelines (to include extubations in the PACU)
- Intubation guidelines - follow up/airway alert
- Cannot Intubate Cannot Ventilate (CICV)
- Default strategy for intubation
- Rapid sequence induction

(For additional information see DAS guidelines: http://www.das.uk.com)

7.13.7 Any patient identified through preassessment, emergency or physical presentation with anticipated difficulties should be discussed at the preoperative safety briefings and a plan of action and allocated roles discussed and agreed.

7.13.8 The five steps to safer surgery (briefing, sign in, timeout, sign out and debriefing) provides opportunity for team members to identify any areas of difficult airway management that present during the episode of care (AfPP 2020). Effective handover and documentation should be provided for future reference.

Education

7.13.9 Orientation to the location of all airway management equipment must take place for all new members of staff and include agency or locum and any staff in training allocated to the department.

7.13.10 Staff must receive regular multidisciplinary team based training to develop the skills in managing a difficult airway using human factors as well as a technical skill approach. Research has shown that teamwork training may reduce technical errors by 30-50% (RCoA 2011).

7.13.11 Where possible, trusts should provide an opportunity for multidisciplinary teams to train together within simulated scenarios to practice technical and non-technical skills (RCoA 2011).

Equipment

7.13.12 Review of equipment available for difficult airway management must be undertaken by a nominated individual to ensure that availability matches the current guidelines and educational requirements for use.

7.13.13 DAS provide a list for suggested equipment, which must form the basis for the local equipment list; this should then be standardised around the organisation. The equipment should be set out and available in an organised and logical manner so that it is readily available in an emergency.

7.13.14 All the equipment available should be



listed for easy reference and undergo daily checks and restock after use by an individual with the necessary skills and knowledge to do so. These

checks must be recorded for the purpose of audit and future reference.

References and further reading

Association for Perioperative Practice 2020 Five steps to safer surgery [online] Available from: https://www.afpp.org.uk/ careers/Standards-Guidance [Accessed March 2021]

Cook TM, Woodall N, Frerk C Fourth National Audit Project 2011 Major complications of airway management in the UK: results of the Fourth National Audit Project of the Royal College of Anaesthetists and the Difficult

Airway Society. Part 1: Anaesthesia British Journal of Anaesthesia 106 (5) 617-631 [online] Available from: https://bjanaesthesia.org/article/S0007-0912(17)33209-9/fulltext [Accessed March 2021]

Cook TM, Woodall N, Harper J, Benger J Fourth National Audit Project 2011 Major complications of airway management in the UK: results of the Fourth National Audit Project of the Royal College of Anaesthetists and the Difficult Airway Society. Part 2: intensive care and emergency departments British Journal of Anaesthesia 106 (5) 632-642 [online] Available from: https://bjanaesthesia.org/article/ S0007-0912(17)33210-5/fulltext [Accessed March 2021]

Frerk C, Mitchell VS, McNarry AF, Mendonca C, Bhagrath R, Patel A, O'Sullivan EP, Woodall NM, Ahmad I (Difficult Airway Society intubation guidelines working group) 2015 Guidelines for management of unanticipated difficult intubation in adults British Journal of Anaesthesia 115 (6) 827-848 [online] Available from: http://bja.oxfordjournals. org/content/115/6/827 [Accessed March 2021]

Popat M, Mitchell V, Dravid R, Patel A, Swampillai C, Higgs A 2012 Difficult Airway Society Guidelines for the management of tracheal extubation Anaesthesia 67 (3) 318-340 [online] Available from: https:// associationofanaesthetists-publications.onlinelibrary. wiley.com/doi/full/10.1111/j.1365-2044.2012.07075.x [Accessed March 2021]

The Difficult Airway Society Anaesthetic emergency sinage [online] https://www.das.uk.com/content/ anaesthetic-emergency-signage [Accessed March 2021]

The Difficult Airway Society Setting up a Difficult Airway Trolley (DAT) [online] Available from: https://das.uk.com/content/difficult_airway_trolley [Accessed March 2021]

The Difficult Airway Society 2015 Guidelines for management of unanticipated difficult intubation in adults [online] Available from: https://www.das. uk.com/guidelines/das_intubation_guidelines [Accessed March 2021]

The Royal College of Anaesthetists and the The Difficult Airway Society 2011 4th National Audit Project (NAP4) Major complications of airway management in the UK [online] Available from: https://www.nationalauditprojects.org.uk/ [Accessed March 2021]