

Guidelines for North Bristol Trust

Emergency Surgical Airway

Date:	March 2015
Review date:	March 2016
Version (draft or final)	01 Draft
Distribution:	Severn Major Trauma Network, Trauma Team Leaders, ICU Consultants, Anaesthetic Consultants and 3 rd o/c trainees, Trauma Team Airway Nurse, Anaesthetic Assistants
Related guidelines:	All SOPs
Further information:	
Authors:	Ben Walton
Approved by:	Approved by the Severn Major Trauma Network

Aims:

To provide safe and effective emergency surgical airway access for major trauma patients in North Bristol NHS Trust.

Objectives

- To be used in conjunction with the Emergency Anaesthesia SOP

Background

Southmead hospital is a Major Trauma Centre within the Severn Network that receives patients with life threatening injuries from trauma. They are managed upon arrival by the multidisciplinary trauma team, led by a consultant trauma team leader (TTL).

Emergency anaesthesia for the major trauma patient is a high risk intervention that has significant potential benefits. Anaesthesia in the non-theatre environment for a patient population that often have unstable cardiovascular and respiratory systems can result in unnecessary morbidity and mortality if performed poorly.

The purpose of this standard operating procedure, in conjunction with the emergency anaesthesia SOP is to provide a consistent, standardised approach to performing an emergency surgical airway. This may need to be performed either following failed intubation in the “can’t intubate can’t oxygenate” situation or where initial intubation is not possible and oxygenation is not possible by other means.

Surgical Cricothyroidotomy

The surgical airway equipment should be removed from the drawer in the difficult airway trolley when it is anticipated that an airway will be particularly difficult. For example:

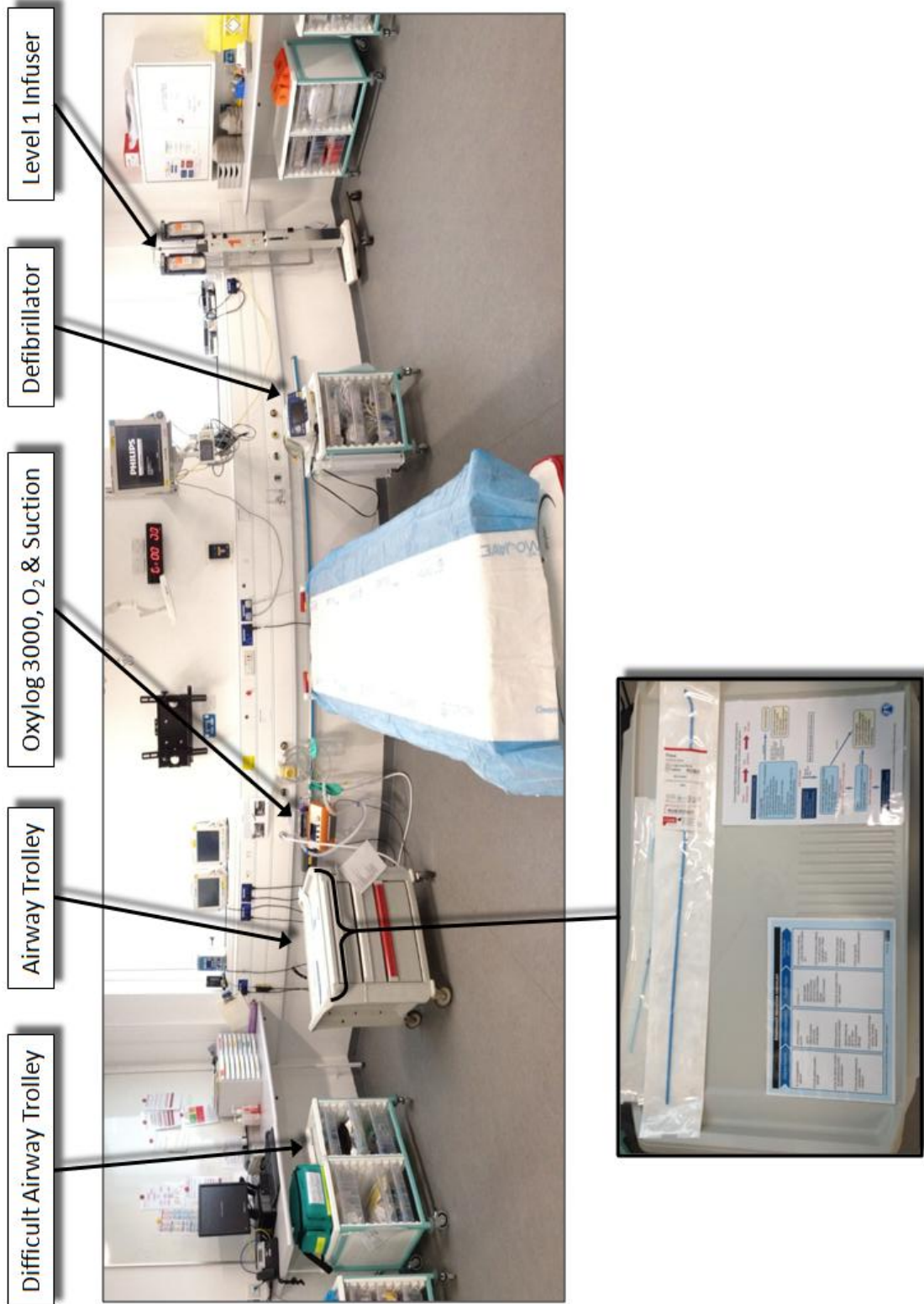
- o Airway trauma
- o Difficult anatomy
- o Burns to face and neck precluding jaw movement
- o Possible airway burns

- The technique of surgical cricothyroidotomy should be rapid, reliable and relatively easy. The technique suggested minimises two commonly encountered problems namely bleeding from the incision and loss of the incision into the airway before or during tube insertion.

Method

- Insert a number 22 scalpel blade horizontally into the cricoid membrane using a “stab / rocking” technique
- Leave the blade in position until the tips of a tracheal dilator are pushed into the airway incision on either side of the blade and opened.
- Remove the scalpel blade and insert a **6.5mm** cuffed tracheal tube (over a lubricated intubating bougie if necessary) into the hole held open by the dilators. The dilators may need to be rotated 90 degrees to admit the tube.
- Inflate the cuff, confirm tube position in the normal way and commence ventilation
- Fix the tube into position with a tie or elastoplast.
- The procedure should take around 30 seconds

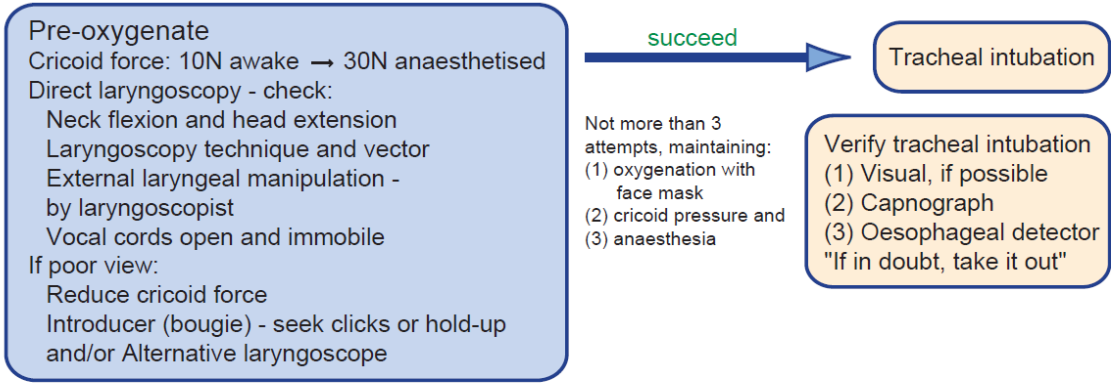
Appendix A – “Resus 1” layout. Note location of the Airway Trolley



Appendix B – Difficult airway

(Adapted from DAS unanticipated difficult intubation during RSI of non-obstetric patient)

Plan A: Initial tracheal intubation plan

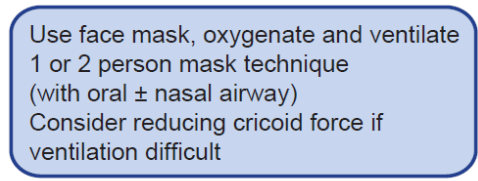


failed intubation

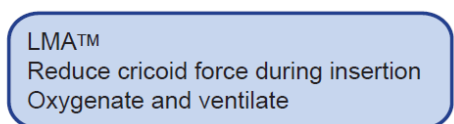
Plan C: Maintenance of oxygenation, ventilation, postponement of surgery and awakening

Maintain 30N cricoid force

Plan B not appropriate for this scenario



failed oxygenation
(e.g. SpO₂ < 90% with FiO₂ 1.0) via face mask



succeed →

Continue anaesthesia with LMA

failed ventilation and oxygenation

Plan D: Rescue techniques for "can't intubate, can't ventilate" situation

1. Identify cricothyroid membrane
 2. Stab incision through skin and membrane. (Enlarge with scalpel or forceps).
 3. Caudal traction
 4. Insert bougie or #6.0 COETT, inflate cuff
- ! Length of tube, confirm ventilation.