Tracheostomy Guideline

Bedside equipment for all tracheostomised patients

- **Emergency tracheostomy box** containing:
  - Spare tracheostomies, one same size as in patient and one size smaller than that in patient
  - Stitch cutters / 1 x 10ml syringe / head torch / 2 x sachets of KY jelly
  - 2 x 14G suction catheters / tracheal dilator forceps
  - Paediatric face mask
  - Miniature bed sign
- **Spare non-fenestrated inner tube**
- **Head of bed sign** (information about date and type of tracheostomy and what to do in an emergency)
- **Laminated Emergency tracheostomy management algorithm**

Suctioning

1. Firstly encourage patient to cough and clear secretions independently then assess for indications to suction i.e. **suctioning should not be done routinely**.
2. ***Pre oxygenate the patient before suctioning***
3. Always have a non-fenestrated inner tube in place before suctioning, to prevent trauma to the tracheal wall by catheter slipping through the fenestration.
4. If using a closed suction system, ensure it is a shorter length one.
5. Perform suction in the same manner as with an endotracheal tube, remembering that the catheter will need to be passed to a shorter distance.
6. Assess secretions cleared and consider if adequately humidified.

Cleaning – inner tube

1. Inner tube is changed 4 hourly or more frequently if required.
2. Spare inner tube must be kept at the bedside in a clean dry environment.
3. Inner tube is removed and spare inserted. Inner tube then cleaned with sterile water and soft foam sponges and left to air dry.
4. Dispose of inner tube if grossly contaminated.

Cleaning – stoma dressing

1. Initial dressing is left undisturbed for 24 hours
2. Dressing carried out by two nurses – one to hold the tube, the other to do the dressing.
3. Stoma cleaned daily using aseptic technique.
4. Clean area with normal saline if clean and chlorhexidine if infected.
5. Ensure tracheostomy dressing is placed with open end running from tracheostomy towards patients chin, shiny side to skin.
6. Ensure tracheostomy holder is not too tight, by slipping two fingers between it and the skin comfortably.

Subglottic Drainage

- Aspiration of subglottic drainage tube should occur 1-2hrly
- Document aspiration volume on 24hr chart

Tracheostomy occlusion/blockage

CALL FOR HELP, FOLLOW GUIDELINES ON HEAD OF BED SIGN

- Oxygen to face & stoma
- Remove cap/inner tube
- Pass a suction catheter
- Deflate cuff/remove tube
- Consider ventilation via upper airway or stoma using a mask or tube (If ventilating via mouth occlude stoma site)

A Mapleson C circuit with capnography may help assessment of airway patency

Emergency decannulation

If patient accidentally decannulates, **CALL FOR MEDICAL HELP**.

Ensure patient is oxygenated via bag-valve-mask or Mapleson C circuit with capnography over mouth (occlude stoma site) until medical help arrives.

Once a senior medic is present the default would usually be to

1. Oxygenate the patient either via
    a. The mouth using BVM or Mapleson C circuit with airway adjuncts OR
    b. The stoma using a paediatric face mask applied to the stoma
2. Secure an airway using an uncut ETT (with cuff beyond stoma) in the emergency. Then refashion a tracheostomy as required or appropriate, usually in daylight hours as a planned procedure.
3. However depending on the reason for tracheostomy and how well formed the stoma is, the stoma may be re-cannulated immediately, often using fibreoptic scope and an airway exchange catheter.

NB. An expert may choose to use the tracheal dilators – these should not be used by non-experts.

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Tracheostomy changes in Critical Care

- In the emergency situation involving an acutely desaturating patient with a tracheostomy in situ, changing the tracheostomy tube is not the appropriate course of action – see the Emergency Tracheostomy/Laryngectomy algorithm for management of this scenario
- Two practitioners, one with advanced airway skills, are required for tracheostomy tube change.
- Record any changes in tube size/type on the bedhead sign. Record tube change, including any complications, in invasive device record.

Essential equipment for elective tracheostomy change

- Full minimal monitoring including capnography.
- The NHS Lothian Airway Trolley
- Fibre-optic 'Scope (FOS) immediately available if required.
- Aintree catheter over FOS, bougie, or suction catheter (with plastic attachment cut off) are acceptable guides over which to change a tube and choice of guide depends on patient condition and personal preference.

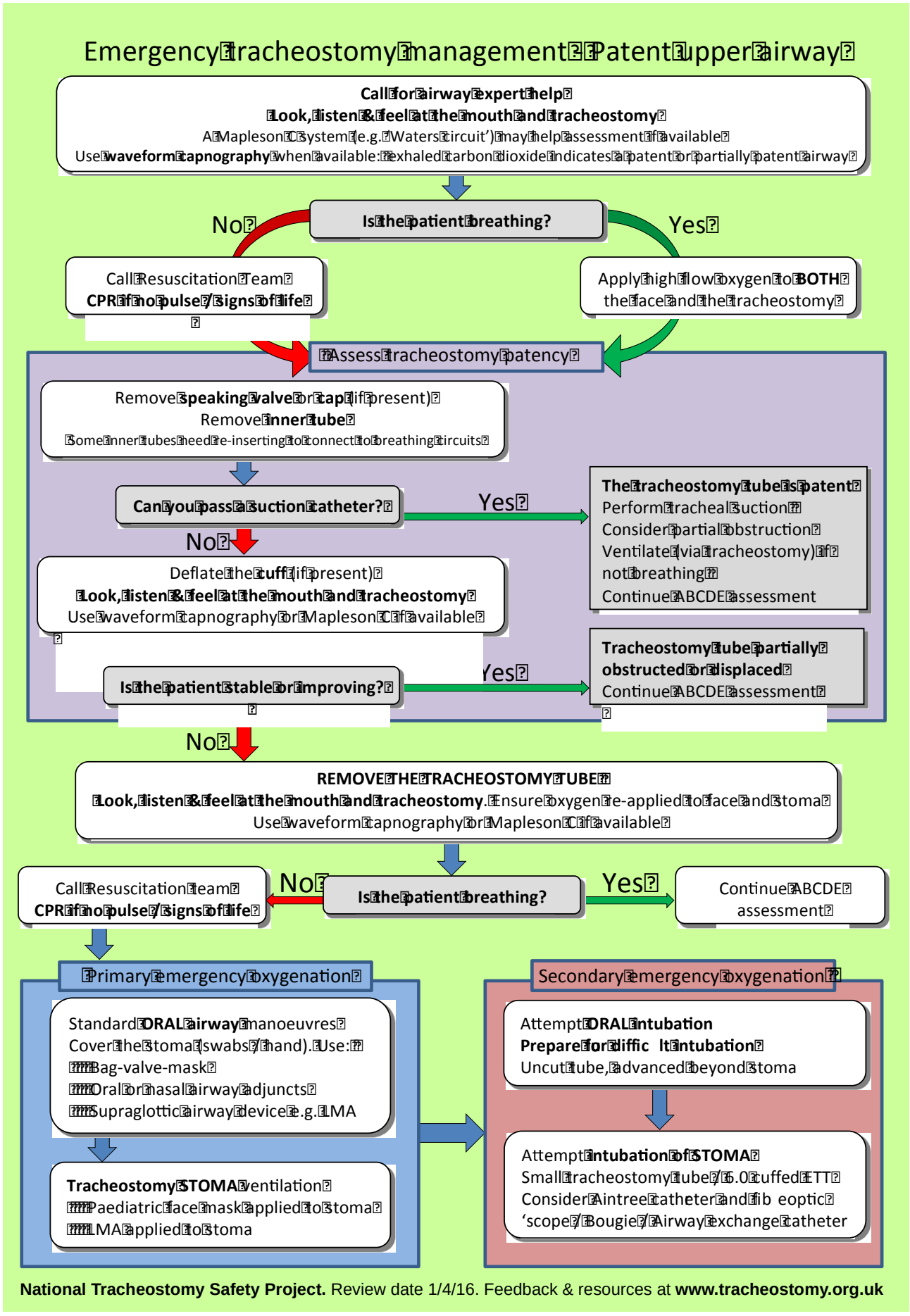
Potential pitfalls

- Guide/bougie will not pass: remove guide and use FOS to assess tube position.
- New tracheostomy tube will not pass: use tracheostomy tube one size smaller.

Caution with tube changes in the following patients:

- First tube change.
- Difficult previous tube change.
- Known difficult upper airway especially in the obese patient with large neck.
- Early changes - within 96h of surgical tracheostomy and 7-10d of percutaneous tracheostomy.

Most tube changes are uneventful, but those that do not go smoothly can go badly wrong. **Thorough preparation is essential. You must plan for loss of airway and/or failure to cannulate the tracheostomy.**



National Tracheostomy Safety Project. Review date 1/4/16. Feedback & resources at **www.tracheostomy.org.uk**

This patient has had a TRACHEOSTOMY

In Emergency:

CALL FOR HELP

Call 2222 or bleep ITU Reg/Con

Surgical / Percutaneous: .....

Performed on: .....

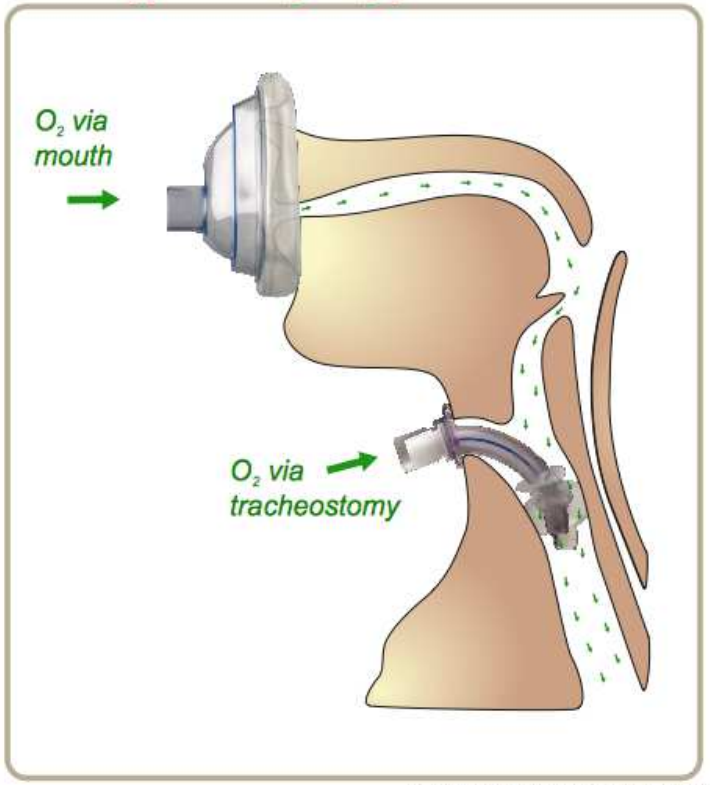
Tracheostomy tube size: .....

(Note: The upper airway may provide an intact airway)

Give oxygen via BOTH stoma & mouth

- **Oxygen to face & stoma**
- **Remove cap/inner tube**
- **Pass a suction catheter**
- **Deflate cuff/remove tube**
- **Consider ventilation via upper airway or stoma using a mask or tube**

  (If ventilating via mouth occlude stoma site)



Ref: Medical Photography/Karen Watson/March 2013