Tracheostomy

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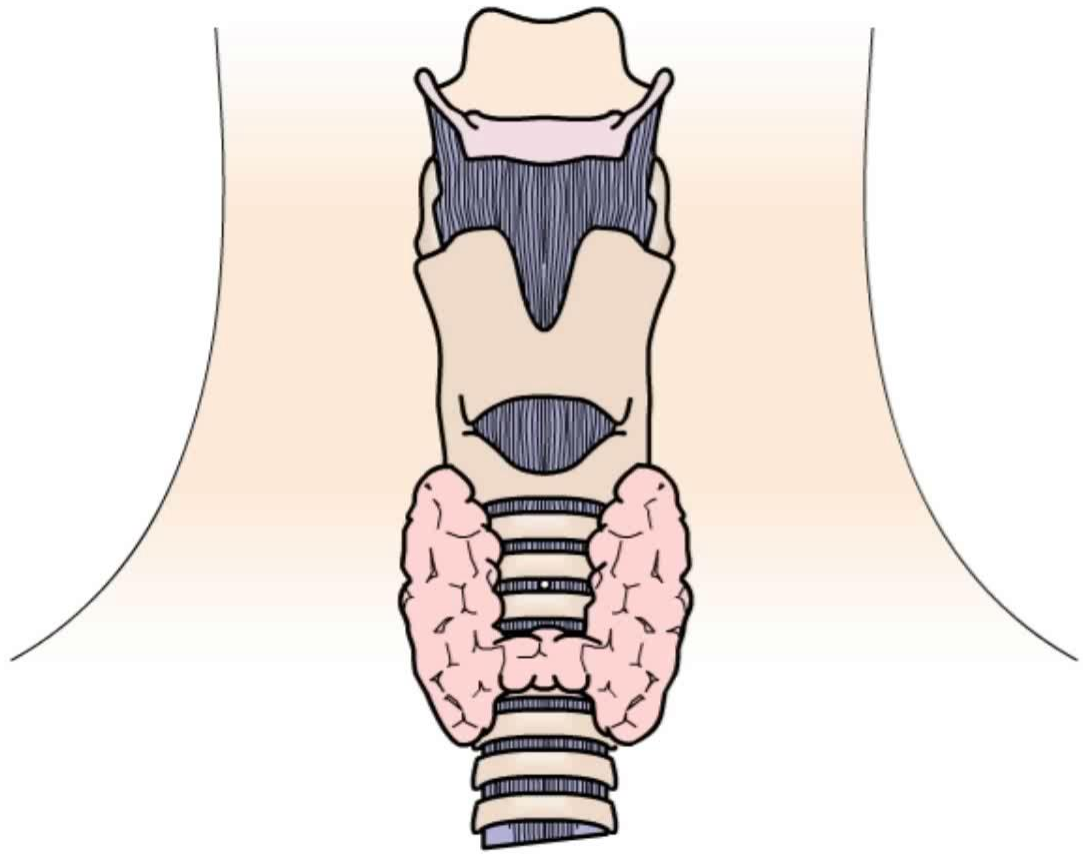
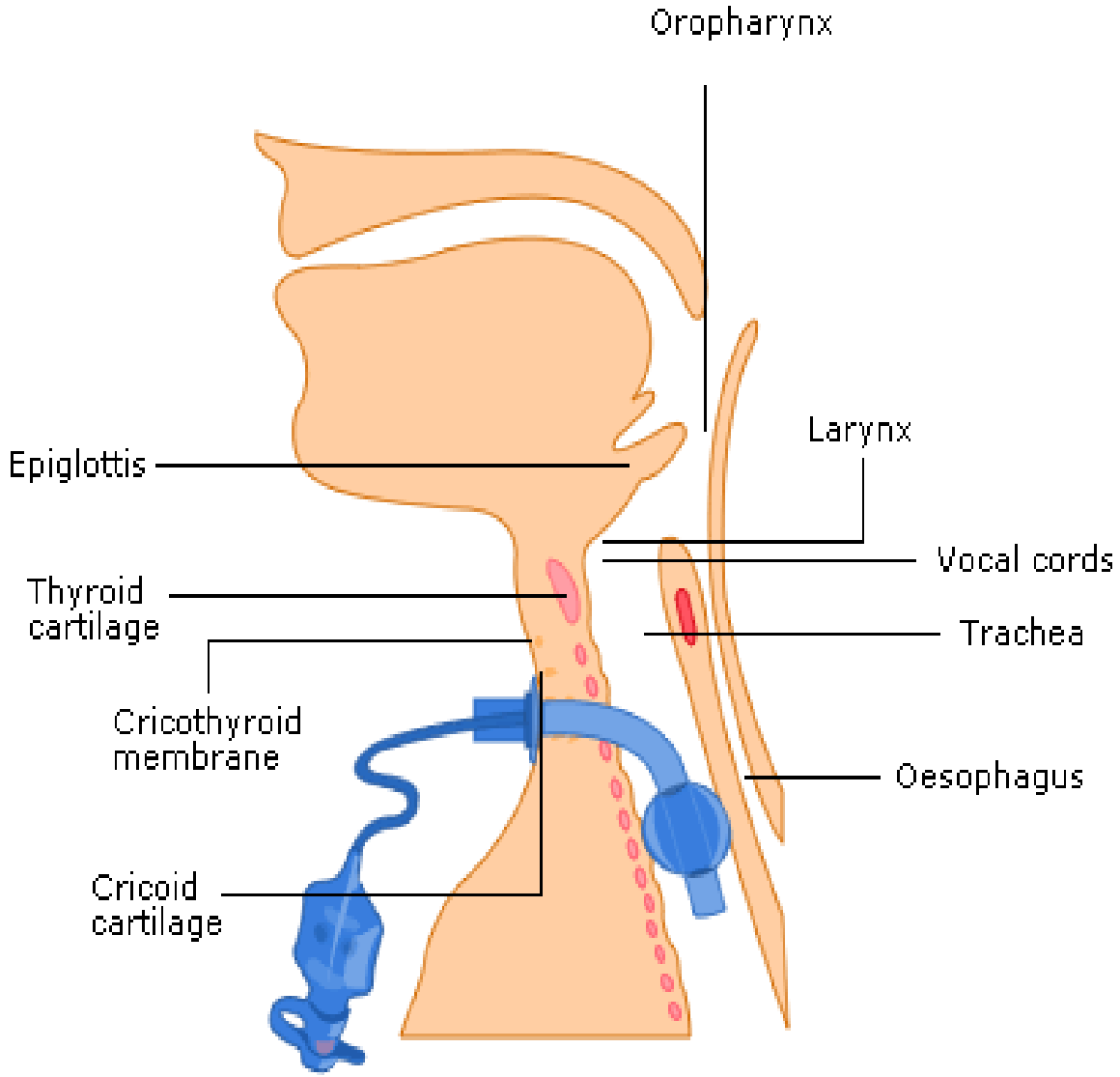
- Thanks to Teresa Scott, Follow up team for some of the slides

Objectives of the session

Think about	Think about why tracheostomies are inserted
Know	Know the pros and cons of insertion
Learn about	Learn about different types of tracheostomies
Know	Know what support is there for you when caring for a patient with a tracheostomy.
Discuss	Discuss safe nursing management of a tracheostomy.




Oropharynx
Epiglottis
Larynx
Vocal cords
Thyroid cartilage
Trachea
Cricothyroid membrane
Oesophagus
Cricoid cartilage

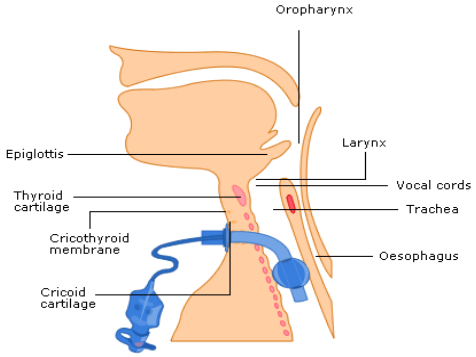
Role of nursing staff

- Diligent observation and assessment.
- Seek advice from other professionals as appropriate.
- Patients should only be cared for in an environment where properly trained staff are present.
- Routine care of an established tracheostomy was in the past considered a basic ward skill, but unfamiliarity with tracheostomies and their routine care means that this can no longer be considered true. Wards receiving tracheostomy patients must have the appropriate skills to care for them, and this will require additional training and assessment of competence. [1]

National Tracheostomy Safety Project

www.tracheostomy.org.uk

“Critical incidents have been reported when crucial knowledge of airway anatomy or airway equipment were lacking, leading to harm and death in this vulnerable patient group”



Indications

- To bypass obstruction – supraglottic or glottic
- Trauma
- Prophylaxis in extensive head and neck surgery
- Sleep apnoea not amendable to CPAP devices
- Protect the airway of patients at high risk of aspiration (neuromuscular disorders)

Indications

- A long term route for mechanical ventilation
- Facilitates removal of bronchial secretions
- Facilitates weaning from artificial ventilation

- Decreases work of breathing
- Marginal effect on dead space
- Decreases requirement for sedation
- Improves patient comfort
- Allows earlier mobilisation

Complications - Immediate

- Hypoxia
- Hypotension
- Haemorrhage – thyroid
- Misplacement
- Pneumothorax or Pneumomediastinum
- Occlusion of tube – balloon herniation

Complications - Delayed

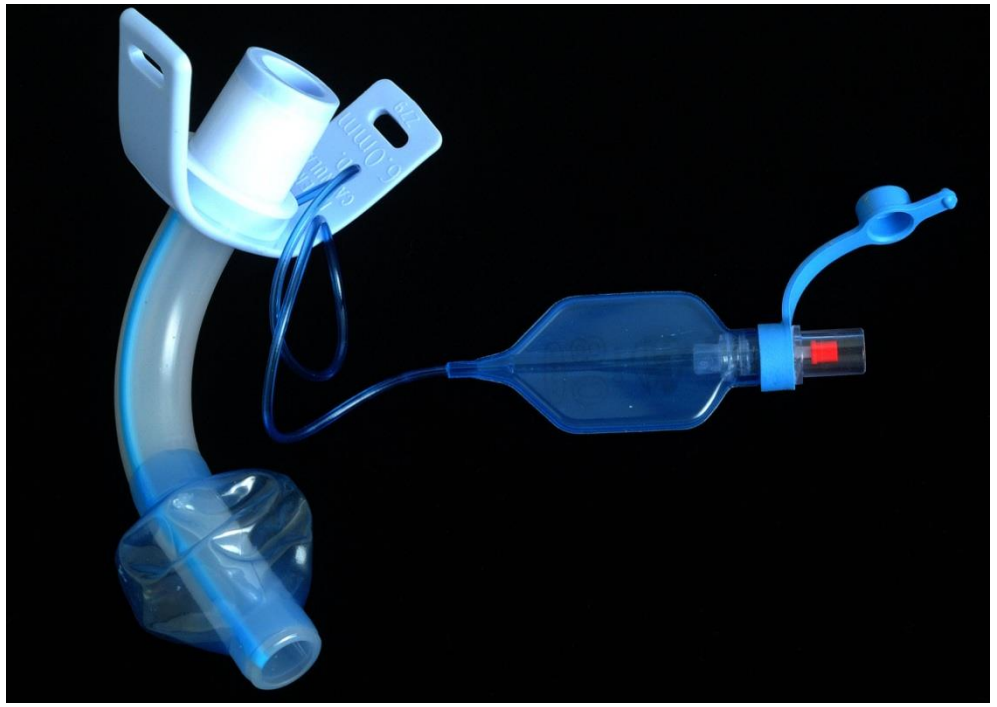
- Haemorrhage
- Tube blockage with secretions
- Infection of stoma site
- Infection of bronchial tree
- Tracheal ulceration
- Risk of occlusion
- Tracheo-oesphageal fistula formation

Complications - Late

- Granulomata of trachea causing difficulty breathing when tube removed
- Persistent sinus
- Tracheal dilation
- Tracheal stenosis
- Scar formation

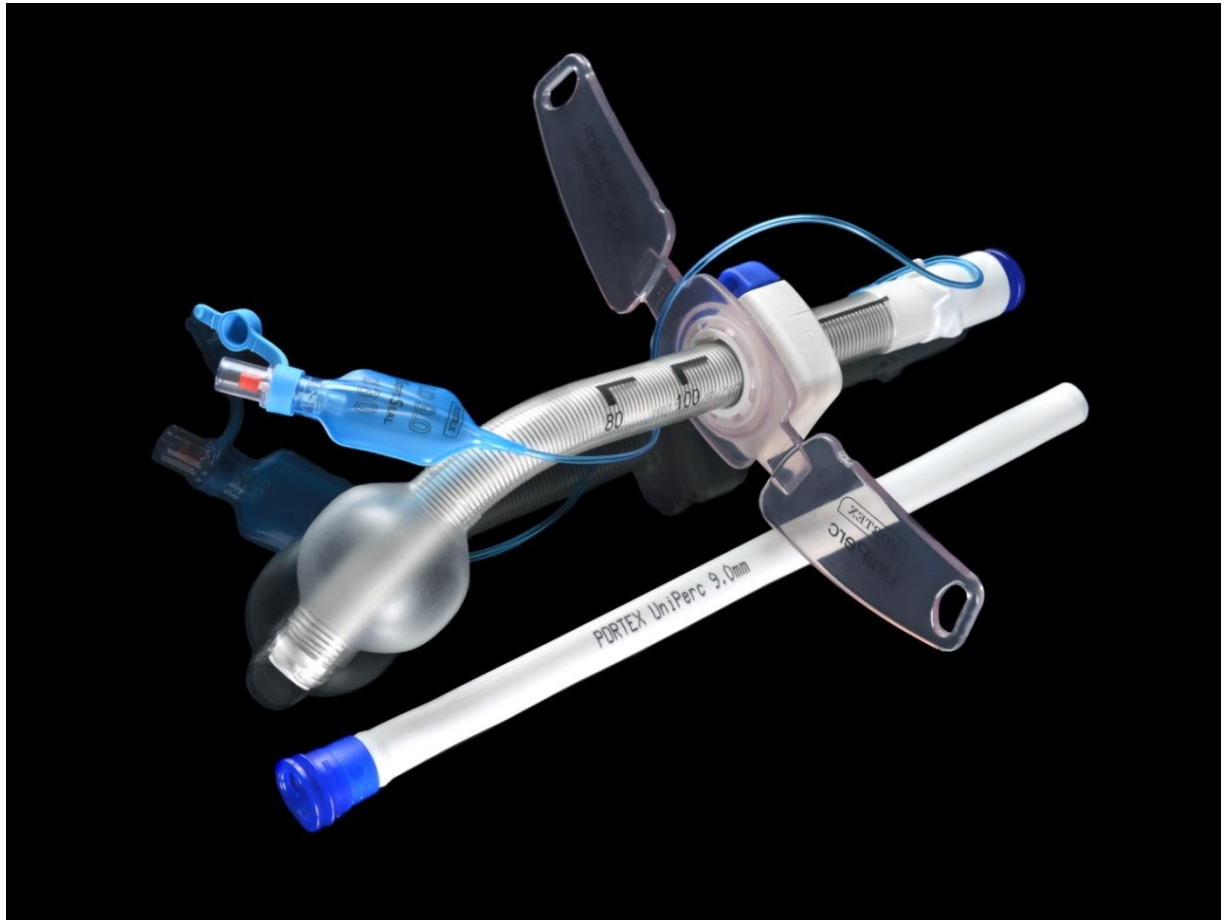
Different Tube Types

Portex – Single Lumen Tracheostomy Tube



Portex – Cuffed Double Lumen Subglottic Tracheostomy Tube

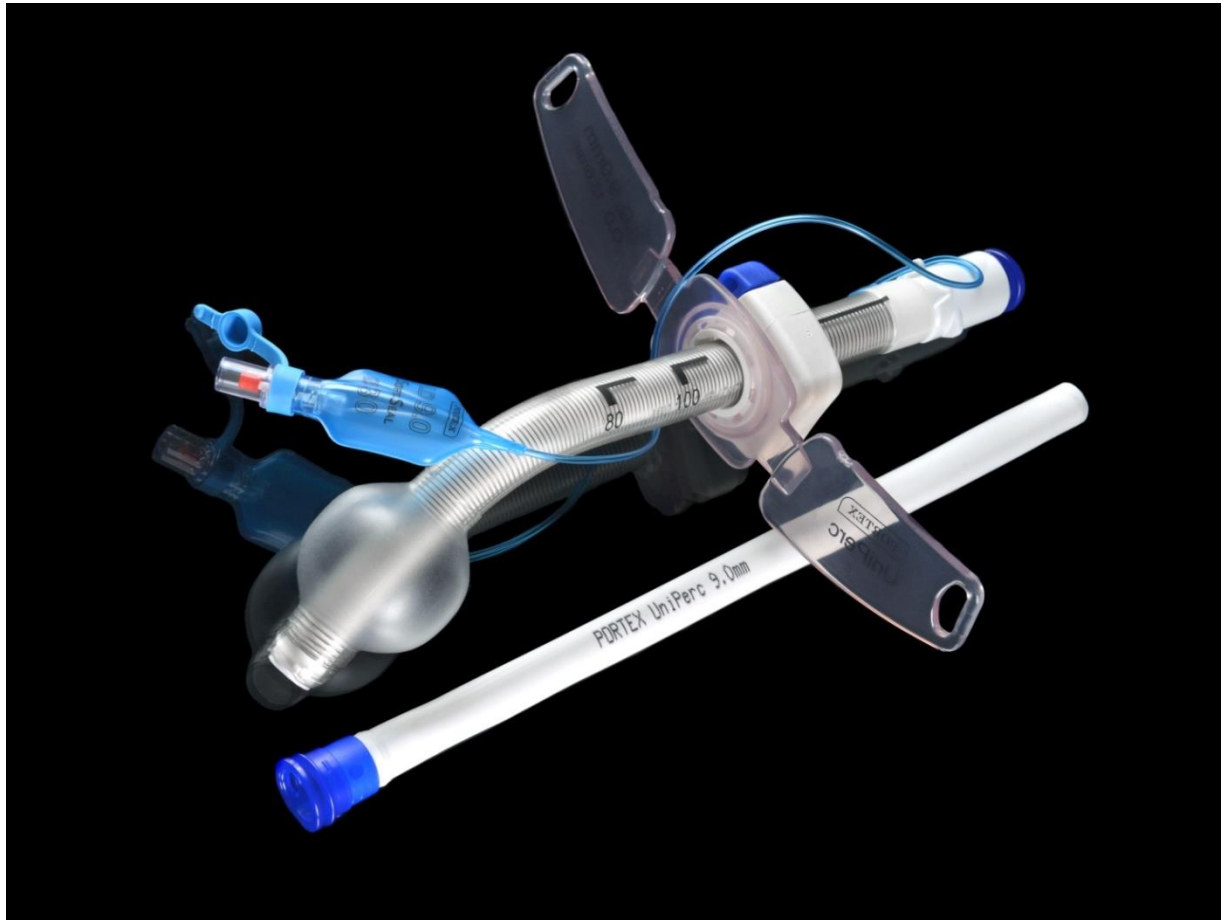
Uniperc – Adjustable Flange Trachestomy Tube



Shiley – Double Lumen Uncuffed Tracheostomy Tube

Shiley – Double Lumen Cuffed Tracheostomy Tube

Uniperc – Adjustable Flange Trachestomy Tube



This patient has a

TRACHEOSTOMY

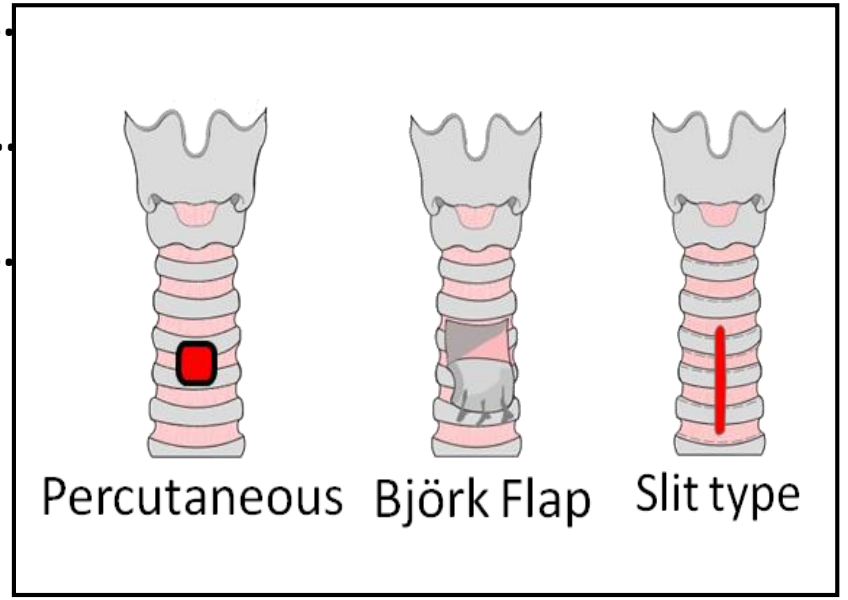
There is a potentially patent upper airway (Intubation may be difficult)

Surgical / Percutaneous

Performed on (date) .....

Tracheostomy tube size (if present) .....

Hospital / NHS number .....



Notes: Indicate tracheostomy type by circling the relevant figure.
Indicate location and function of any sutures.
Laryngoscopy grade and notes on upper airway management.
Any problems with this tracheostomy.

Emergency Call: **Anaesthesia** **ICU** **ENT** **MaxFax** **Emergency Team**

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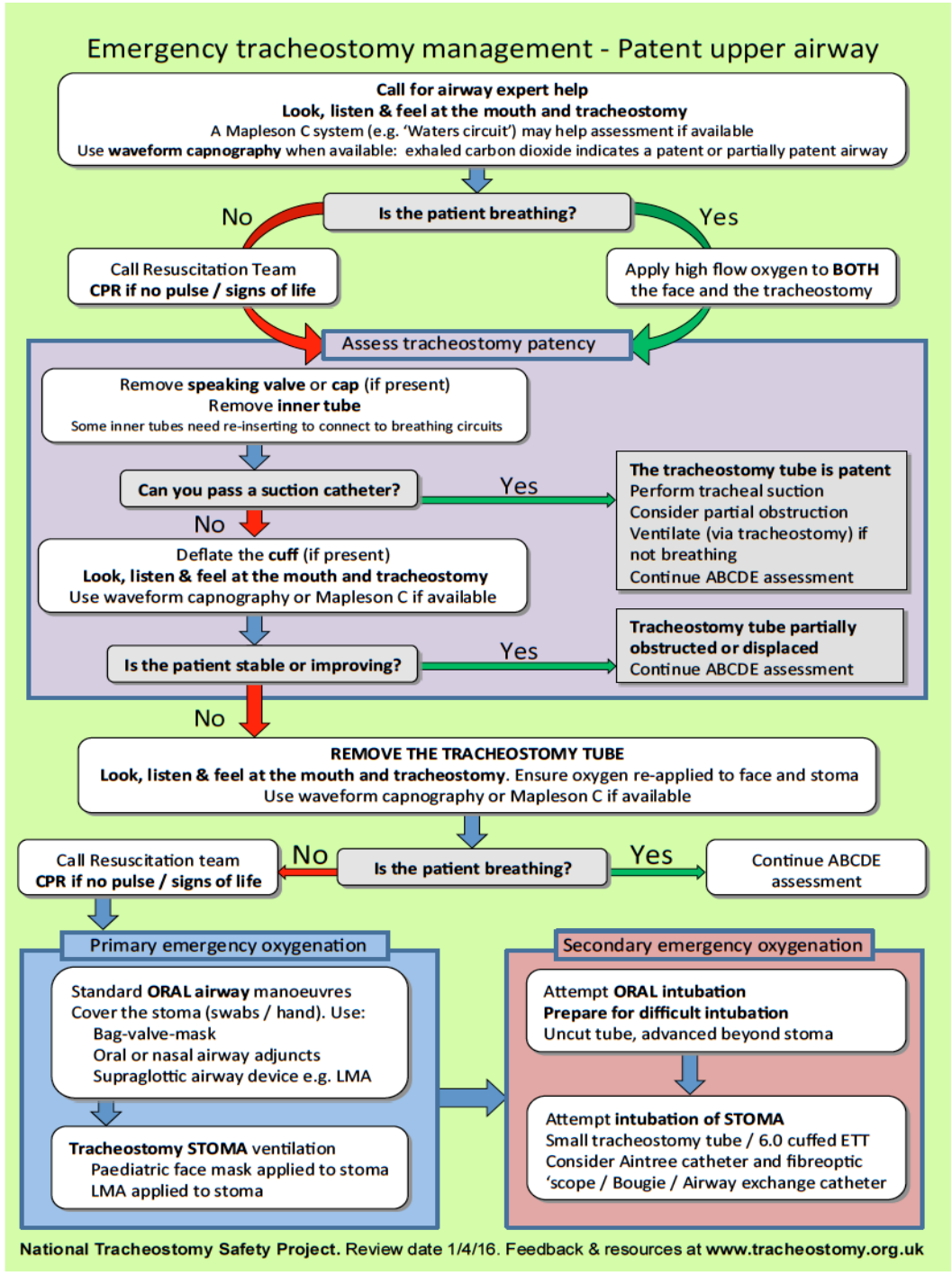
Emergency tracheostomy management - Patent upper airway

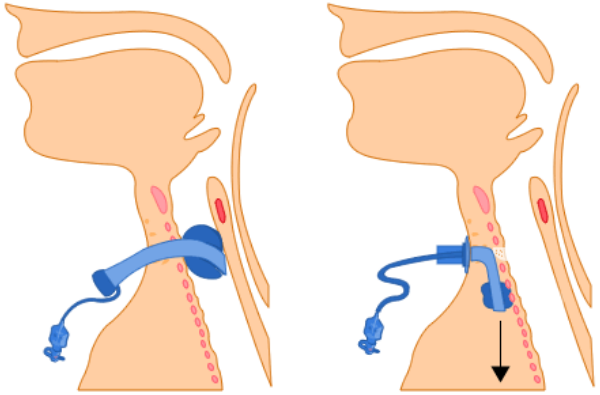


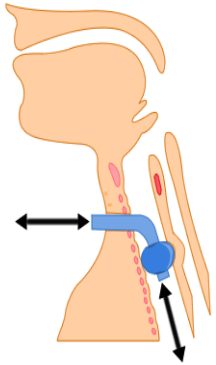
National Tracheostomy Safety Project. Review date 1/4/16. Feedback & resources at **www.tracheostomy.org.uk**

Common Issues

Trouble Shooting

- Inner Cannula
- Dislodged Trache tubes
- Cuff Leak
- Speaking Valves





DATE	INJURY/IMPAIRMENT	MANAGEMENT / INTERVENTION	CAUTIONS	REVIEW DATE AND SPECIALITY	FOLLOW UP COMMENTS/PLAN
10/3/24	(L) 3-8 rib #'s (R) 1-11th rib #'s Sternum #	**19/3 Bilateral rib fixation** **19/3 Sternum ORIF**		Cardiothoracic	Trachy 2/4 – still ventilated 8/4 using t-piece 4 hours at a time 10/4 Brief trial of passy muir valve, cuff down and T-piece 12/4 Decannulated
10/3/24	R acetabular #	**20/3 ORIF**	TWB for 6 weeks (1/5/24) Right leg followed by 6 weeks of PWB Can sit or lay any position	Ortho	Dalteparin 6 hours post op and continue for 28 days Pelvic xray and right Judet views post op
10/3/24	R femur # involving femoral neck	**11/3 Right Long IM Femoral Nail**	Mobilise TTWB Right leg for 6 weeks due to neck fracture.	Ortho	
10/3/24	L open distal femur + prox tibia #	**11/3 Left Shin Wound Washout and Spanning Ex-Fix** **14/3 ORIF left distal femur**	14/3 Can WB as able on left leg but with other injuries this is going to be difficult so wheelchair and transfers to start.	Ortho	Remain in bulky bandages, wound check at 1 week. R.O.C /sutures at 14/7. Can wbaa on left leg. Continue on IV Co-Amoxiclav further 7/7
10/3/24	R elbow #	**11/3 Right Elbow MUA** **14/3 ORIF Right Olecranon**	Remain in bulky bandage and polysling for two weeks and then wound review and gently mobilise, no load bearing for 6 – 8 weeks.	Ortho	Removal of clips at 14 days
10/3/24	R hand metacarpal dislocation ?4th and 5th prox phalanx #	**11/3 Right MC # Dislocation MUA** **CT Hand planned 11/3** **14/3 K-wire fixation of hamate**	Remain in volar slab for 4 weeks and then review for removal of k wires and then hand physio. Buddy strapping of ring finger and little finger and volar resting slab.	Ortho	Remain in volar slab 4/52 and then review. For removal of k-wires and then hand physio
10/3/24	C2 #	**Conservative** **Neuro advice 10/3 Mobilise in a well-fitting cervical Miami J Collar for 8 weeks** **Pain management**		Neurosurgery	Baseline cervical X-Rays AP and Lateral before discharge - RAC fracture follow up will be arranged at 4 and 8 week by the spinal team
10/3/24	L1 wedge # L2, 4 and 5 #	**Neuro advice 10/3 No actions /follow up or limitations to mobilise the patient**	No limitations to mobilise the patient	Neurosurgery	No actions /follow up
05/04/24	Severe bradycardia and requiring more vent support – CT head, neck and chest				
23/4/24	Left Scaphoid #	**23/4 – ORIF under block**		Ortho Hands	f/u w/end hand clinic 3/5
30/4/24	Deranged LFT's	**Liver USS 30/4/24**			

Points to consider/discuss

Why did this patient get a tracheostomy?

What signs might alert us to our patient struggling to breathe and what can we do about it?

The patient is trying to talk – what can we do about this to help him to progress to talking?

The patient is doing T-piece sprints – what is essential and what do we need to watch for?

The patient desperately wants some water and to have some custard a relative has brought in, any issues or concerns?

The patient is transferred to a ward when he is off the ventilator and is doing so well, how do we wean a trache, which team members can be involved? There is some suggestion that he could go straight to a rehab ward as is doing so well – any concerns from the staff regarding this?

References

- (1) Intensive Care Society (2014) Standards for the care of adults patients with temporary Tracheostomy; STANDARDS AND GUIDELINES. ICS

- (2)Tobin, A E, Santamaria J D (2008) An Intensivist – led tracheostomy review team is associated with shorter decannulation and length of stay:a prospective cohort study. Biomed central.

- (3) Martinez, G H, Fernandez, R, Casado, M S, Cuena, R, Lopez-Reina P, Zamora, S, Luzon, E (2009) Tracheostomy tube in place at Intensive Care Unit Discharge is associated with increased ward mortality. Respiratory Care Vol12, PP 1644 – 1652.

- National Tracheostomy Safety Project, www.tracheostomy.org