TRACHEOSTOMY EMERGENCIES & RESUSCITATION

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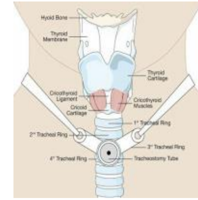
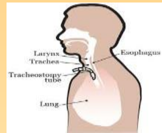
TRACHEOSTOMY

- Incision made below the cricoid cartilage through the 2nd -4th tracheal ring.
- There is still a connection from the nose or mouth to the lungs, so traditional airway manipulation will work.



KNOW WHY YOUR PATIENT HAS A TRACHEOSTOMY TUBE

- To maintain a patent airway and permit the removal of bronchotracheal secretions



- Why the tracheostomy was performed?
- Whether the upper airway is patent, partially or completely obstructed ?
- How long the tracheostomy has been established?

EMERGENCY BEDSIDE EQUIPMENT

- Appropriate SJH Tracheostomy Tray

Contains necessary emergency equipment

- Functioning Suction
- Functioning Oxygen
- Spare inner cannula

TRACHEOSTOMY TRAY

- Portex suction aid cuffed tube size 8 and 7,and Shiley size 4Non cuffed(4DCFS) .
- Tracheal dilators
- Stitch cutter
- Scissors and pen torch
- Tube ties, velcro and cotton.
- 10ml syringe
- Sleek tape and surgilube/KY gel

IMPORTANCE OF BEDHEAD SIGN

This patient has a

TRACHEOSTOMY

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

Percutaneous / Surgical

Indication: **Difficult Airway** ☐ **Prolonged Ventilation** ☐
Prophylactic Airway Management ☐

Performed on (date)……………………………………….
Tube type and size……………………LOT No……………………Use by……..
Patient Hospital No. ………………………………………….

Laryngoscopy Grade & Notes on managing upper airway:

Special Instructions:

Percutaneous **Surgical**

Indicate tracheostomy type by circling the relevant figure
Indicate location and function of any sutures inserted

Emergency: ICU Reg: #666 **ENT Reg/ Max fax Reg via SWITCH or Anaesthetic Senior Reg: ext 6123**
Mon-Fri: Tracheostomy CNS: #538 **Staff St. Johns Ward for support/advice: ext 2181**

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COMMON EMERGENCIES ASSOCIATED WITH TRACHEOSTOMY PATIENTS

- Accidental decannulation

- Tube Occlusion partial /Complete

- Respiratory / Cardiac Arrest

ACCIDENTAL DECANNULATION- TUBE FALLS OUT

- Once tube in situ more than one week the tract is usually well formed and will not close over straight away.
- If tube in situ less than 10 days a stay suture should be taped to patients chest. By pulling on this suture the trachea is brought forward and airway usually opened to facilitate tube replacement.

- **Call for help**

Inform ward staff to inform appropriate person:

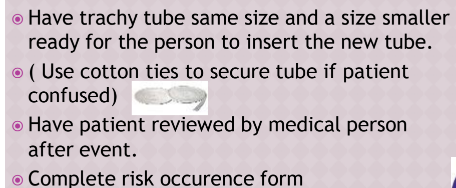
- **Anaesthetist on call # 666 or ext 6123 on site 24/7**
- **Mon-Fri 08.00-16.00 Tracheostomy nurse # 538**
- **Staff St Johns ward for support/ advice ext 2181**
- **ENT/ Max Fax Reg on call via Switch board**
- **While waiting for help to arrive.**
- **Reassure the patient, and reinsert new tracheostomy tube if competent to do so.**

- Open Trachy emergency tray at bedside, take out trachy dilator.

- Keep stoma open by gently inserting dilator. Ensure correct position metal parts should be north and south.

- If patient desaturates administer oxygen via stoma. If stoma appears to have closed over try via face mask.

- Have trachy tube same size and a size smaller ready for the person to insert the new tube.
- (Use cotton ties to secure tube if patient confused)



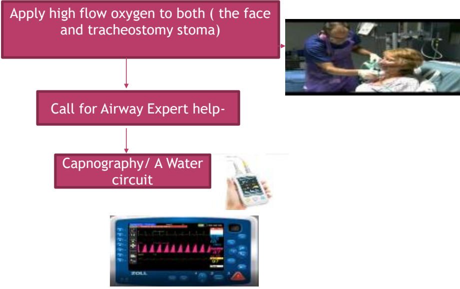
- Have patient reviewed by medical person after event.
- Complete risk occurence form

MANAGEMENT OF THE TRACHEOSTOMY PATIENT WITH BREATHING DIFFICULTIES- PATENT UPPER AIRWAY

Apply high flow oxygen to both (the face and tracheostomy stoma)

Call for Airway Expert help-

Capnography/ A Water circuit



Is the patient breathing?

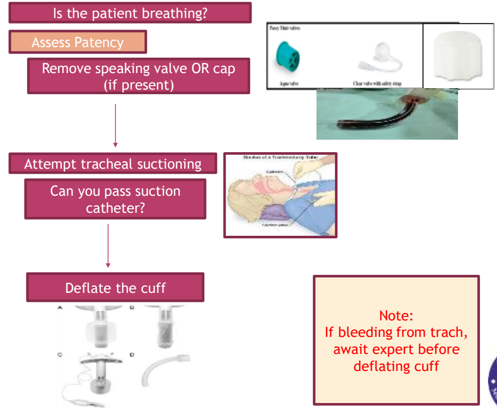
Assess Patency

Remove speaking valve OR cap (if present)

Attempt tracheal suctioning

Can you pass suction catheter?

Deflate the cuff



Note:
If bleeding from trach, await expert before deflating cuff

Is the patient improving?

- Check the air flow from trachy using your arm
- If remains occluded Remove the tracheostomy tube: except in ICU setting, apply AMBU bag and await until anaesthetic assistance.
- Reinsert new tracheostomy tube if competent to do so.
- If not-keep stoma open using tracheal dilator
- Administer oxygen and reassure patient until help arrives.

RESPIRATORY / CARDIAC ARREST SITUATION

Call for help

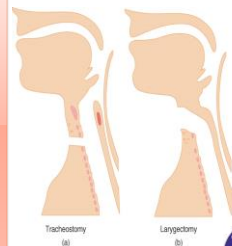
- Basic Life Support – Circulation, Airway, Breathing(30 compressions to 2 breaths)
- Lie patient flat and remove any clothing from the neck- check patency of the inner cannula
- Assess breathing
- Has the patient a cuffed tube insitu?
  Yes- ensure cuff is inflated(5-7mls air)
  No-change to cuffed tube it competent to do so.

Maximum ventilation and oxygenation occurs when there is a cuffed, non fenestrated tracheostomy tube insitu.

- Make sure you see chest rise.
- Give breaths via tracheostomy tube- attach catheter mount to the top of the tracheostomy tube (ideally cuffed) , attach the Bag Valve Mask(BVM) to 15 L of oxygen .
- Remove face from BVM and attach catheter mount.

LARYNGECTOMY

- The surgical removal of the larynx, completely and permanently.
- Neck breathers
- There is NO CONNECTION from the nose or mouth to the lungs, so traditional airway manipulation will not work.



LARYNGECTOMY PATIENT

- Not intubated orally or nasally
- Same steps as before – BLS
- Mouth to stoma breathing/ paediatric face mask
- Insert cuffed, Non fenestrated tracheostomy tube

OVER BED SIGN FOR LARYNGECTOMY PATIENT

DISCHARGE NEEDS OF THE TRACHEOSTOMY PATIENT

- Early discharge planning is essential for all patients going home with a tracheostomy or laryngectomy

ORDERING EQUIPMENT

- **Social worker-** Apply for medical card
- **Tracheostomy Safety Facilitator/ Head & Neck Co-ordinator** – tubes, suction equip, Neb machine humidification bibs etc.
- **Speech and Language-PMV**, electrolarynx or blom singer(if laryngectomy Patient)
- **Dietician**-if patient being tube fed/ increased calorie intake

EQUIPMENT NEEDED

- Suction Machine(battery and mains) +/_ Suction Tubing
- Correct size suction catheters
- +/- Nebulizer
- Humidifier(available from Argos and Boots)
- Correct mask
- Spare tracheostomy tubes, swedish nose, disposable inner cannulas, bibs, velcro ties etc

TEACHING

PERSONS INVOLVED:

Primary the patient
Caregiver
Public Health nurse

TOPICS:

- Cleaning (cooled boiled water used)
- Skin protection
- Handwashing and hygiene about the tube
- Suctioning
- Daily activities(swimming forbidden/ shower protection)

EMERGENCIES

- Ensure patient and their families prepared should tube become dislodged… How??

Action plan:

- Exact location in house where spare tracheostomy tube is kept.
- Resite immediately if patient/ family member competent to do so.
- Reviewed by medical person.
- If patient/ family member not competent to replace tube, patient must bring spare tube with them to their nearest A &E

FOLLOW -UP

- Hospital staff contact numbers
- Community contact numbers- appliance officer, PHN etc
- Clinic- monthly tube changes (EU guidelines)
- Speech Therapist
- Dietician

Thank you