

Appendix 6 Tracheostomy and Laryngectomy Prompt

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Bedside equipment checklist

All equipment should be checked at the beginning of the shift- on handover of patient care (see tracheostomy pathway). Tracheostomy care bed signs should be displayed above bed area & the emergency tracheostomy algorithm should be clearly visible in the bay/room.

Essential equipment

- ❖ Oxygen flow metre & connections
- ❖ Humidification system
- ❖ Suction unit/ tubing/ appropriate size catheters & adaptors including Yankauer catheters.
- ❖ Bottle of water (date when opened) for flushing suction system (changed every 24 hours)
- ❖ availability of pulse oximeter.

Emergency equipment

- ❖ Ambubag
- ❖ Catheter mount on accessible resuscitation trolley
- ❖ Neonatal resus mask (for Laryngectomy)

Patient communication

- ❖ Audible call bell system
- ❖ Writing material

Trache/Lary Bedside Box

- ❖ Tracheal dilator
- ❖ Spare tracheostomy tubes : same size & one size smaller.
- ❖ 10ml syringe and cuff manometer
- ❖ Stitch cutters
- ❖ Spare inner tube
- ❖ Optilube
- ❖ Spare Tracheostomy mask
- ❖ Spare tracheostomy dressings
- ❖ Spare tracheostomy tapes
- ❖ Cleaning swabs
- ❖ Cavilorollipops

Documentation of Patient care

- ❖ Complete the tracheostomy care pathway.



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Red Flags

Airway Flags

- If the patient has a cuffed tracheostomy correctly sited in the trachea, no gas should escape through the mouth.
- If the patient is talking to you, or audible air leaks or bubbles of saliva are seen or heard at the mouth or nose, then gas is escaping past the cuff.
 - This may imply that the cuff is damaged or the tube tip is not correctly sited.
- Grunting, snoring or stridor are also signs that there is an airway problem.

Breathing Flags

Listening to the patient, or observation of the patient or instrumentation, may show that the patient:

- Is not breathing (apnoea), which is detected by capnography or clinically
- Has difficulty in breathing (or with ventilation), which may be reported by the patient or observed clinically:
 - Accessory muscle use
 - Increased respiratory rate
 - Higher airway pressures
 - Lower tidal volumes
 - Has hypoxia
 - Is making whistling noises or has noisy breathing

Specific tracheostomy Flags

Careful observation may show that the patient:

- Has a visibly displaced tracheostomy tube. If this is an adjustable flange tube, check to see where it was last positioned
- Has blood or blood-stained secretions around the tube - a recently performed or changed tracheostomy bleeds a little, but if in doubt, it should be assessed
- Reports increased discomfort or pain
- Requires a lot of air to keep the cuff inflated, which may be because:
 - The cuff is damaged or has an air leak (in which case, it needs to be replaced)
 - The tube may be displaced and the cuff needs hyper-inflation to keep it 'sealed'

General Flags

Any physiological changes can be due to an airway problem. Specifically, changes in:

- Respiratory rate
- Heart rate
- Blood pressure
- Level of consciousness

Anxiety, restlessness, agitation and confusion may also be due to an airway problem.

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Bleeding Tracheostomy – Active management

Assess blood loss from stoma site, staining dressings and/ or blood found on tracheal suctioning

Check Large bore IV access

Check observations- pulse, BP, respiratory rate.

Don't panic- Call for help
Contact ENT
Consider MET call 2222
Consider Anaesthetic emergency 2222

Yes

Is the tracheostomy >2 days old?

No

Remove dressing & tracheostomy tube holder.
Clean site with sterile saline

Look for obvious bleeding point.
Apply pressure if seen. Inflate cuff

Is the bleeding controlled by pressure or cuff inflation? ENT review required, stoma edges may require dilute adrenaline

Apply Kaltostat if necessary.

Apply dressing.
Monitor for further bleeding

Consider possibility of tracheo-innominate artery fistula (TIF)

A SMALL BLEED MAY LEAD TO A MAJOR HAEMORRHAGE- SEEK URGENT EXPERT HELP

Refer to ENT Surgeon for urgent scope / exploration

Major bleed likely
Recheck all observations (ABCDE)

Consider activating the major haemorrhage protocol
More info access: Microguide: Emergency Medicine / Major trauma / Massive Blood Transfusion

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Bleeding Tracheostomy – palliative management

Carotid Artery haemorrhage Guidelines.

To be used alongside advanced care planning in patients with untreatable head and neck malignancy (DNACPR)

In the event of a catastrophic bleed: stay calm, call for help and remain with patient

- Call for help, shift leader, ENT, CCOT, CSM. Consider MET call / Anaesthetic emergency 2222
- Ask for Crisis Medication
- Ensure someone remains with the patient at ALL times
- Talk calmly, provide reassurance and comfort
- Administer pressure if possible
- Access towels and medication
- Consider location, if time allows a Side room, maintain privacy
- Be respectful to family wishes and if they want to be present
- Inflate tracheostomy cuff, suction, apply towels

Crisis Medication:

Midazolam 10mg:

IV onset 2-3 mins

IM onset 5-10 mins

Buccal onset 10-15 mins

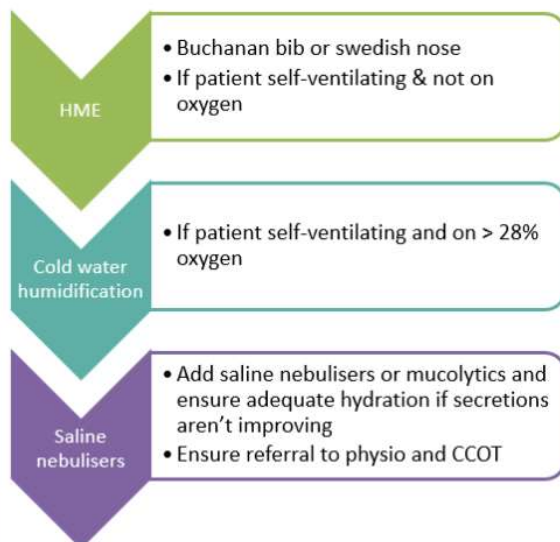
This should be obtained and administered as quickly as possible, route dependant on availability

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Humidification and Suction

Assess your patients secretions frequently.

Consider which type of humidification is required:



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Procedure for suctioning:

- Assess the patient and the need for suction
- Use appropriate PPE
- Gather necessary equipment (suction catheter, water, sats monitoring)
- Communicate the procedure effectively to the patient.
- Suction catheter size (tube size -2 x2)
- Suction pressure (equal to or less than 20kpa)
- Consider depth of suction
- Catheter single use, dispose after each attempt
- Duration, 10 seconds max suction, continuous on withdrawal only, 3 attempts in succession
- Re-apply O2 and re-assess

Weaning & speaking valve

Weaning should be used with MDT approach

Points as weaning is considered :

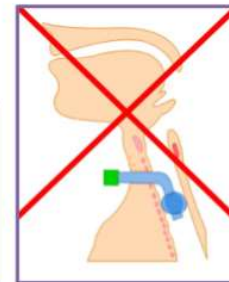
- Clear Goal/target
- Airway patency
- Airway protection
- Is the patient well?
- Haemodynamically stable, fever or active infection.
- Level of alertness
- Cough efficiency
- Swallow status and saliva management
- Planned procedures requiring anaesthesia within next 7-10 days
- Safety of current clinical environment?

Once weaning is commenced

- Cuff deflation, length of time and frequency
- Size of trache tube, adequate airflow around the tube

Speaking Valve Use:

- Valve fits on end of tracheostomy
- Tracheostomy Tube should be small enough to breathe around
- It's a one way valve, and the **cuff must be DOWN**
- Use as part of the weaning plan, with SALT guidance
- Document weaning, cuff down and speaking valve use in care pathway



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Safe Transfers

- Use Transfer risk assessment tool
- Prepare patient in a timely manner.
- Ensure ward team is aware of transfer.
- What monitoring may be required?
- Has bedside box been checked & all equipment present?
- Consider oxygen supply & tubing
- Nurse escort is Tracheostomy trained & competent
- Cuff status
- Tracheostomy care pathway

Equipment:

- Patients clinical notes
- Bedside box, spare tubes
- Suction unit and catheters
- Trache Bed sign and emergency algorithm
- Oxygen & /or humidification
- Monitoring
- Appropriate PPE

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Tracheostomy tube change checklist

Two person talk through (challenge-response) immediate prior to tube change

Prepare team & patient

Timing of procedure needs consideration to minimise risk

Has airway been assessed?

- Indication for change
- Grade of intubation
- Is current tracheostomy >7 days old?

Observations

- Ensure recent set obtained
- Are patient's oxygen sats within target?
- Where required pre-oxygenate

NG feed off/ Aspirated/ NBM >4 hrs?

Coagulation

- Are profile results on day of tube change?

Patient Consent?

- Ensure procedure has been fully explained

Is patients position optimised?

- Supine
- Head & neck extended.

Roles allocated

- Competent person changing tube
- Assistant- NB are they aware of what is required of them?

Prepare equipment

Emergency tracheostomy management algorithm available?

Monitoring applied?

- SpO₂

Monitoring available?

- ECG
- BP
- Capnography

Equipment present and checked?

- O₂ present & non-rebreathe mask
- Resus equipment (BVM/ LMA/ red bag)
- Airway exchange catheter
- Tracheal dilators
- Tracheostomy tube-same size & size smaller
- Suction checked- yankauer & catheters available
- Water soluble gel
- Stitch cutter / sutures (if suture secured)
- 10ml syringe (for cuffed tubes)
- Tracheostomy dressing & tapes
- Stethoscope
- Dressing pack & sterile saline

Prepare for difficulty

Difficult tube change plan discussed & equipment available?

Plan A- recheck correct position of neck/ stoma

Plan B- Reattempt insertion with smaller size

Plan C- 2222 emergency anaesthetic support. Apply oral & stoma oxygen/ prepare for oral intubation

Plan D- Attempt stoma intubation.

Specific complication anticipated?

Yes / No

If any complications emergency tracheostomy management flow chart to be used.

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De-cannulation Procedure

To be considered only when a patient has been through a structured weaning programme

Prior to De-cannulation

Timing of procedure needs consideration to minimise risk

Prior to de-cannulation the MDT will confirm:

- The patient can maintain and protect their airway spontaneously
- They are free from ventilatory support with adequate respiratory function
- Haemodynamically stable
- Ideally Alert
- Absent from fever or active infection
- Strong cough
- Control of saliva and competent swallow
- No planned procedures requiring anaesthetic in next 7 days
- Clinically stable
- Patient cuff down >24hrs and PMV >12hrs

NG feed off/ Aspirated/ NBM >4 hrs?

Patient Consent?

- Ensure procedure has been fully explained as appropriate

Roles allocated

- Competent person changing tube
- Assistant- NB are they aware of what is required of them?

Prepare equipment

De-cannulation is a two person procedure

Monitoring applied?

- SpO₂, target SpO₂ are met
- Initial set of observations recorded

Is patients position optimised?

- Supine
- Head & neck extended.

Equipment present and checked?

- Alongside standard bedside equipment:
- Oxygen and SpO₂ monitoring
- New tracheostomy tubes
- Sterile dressing pack
- Normal saline
- Semi permeable occlusive dressing
- Suction equipment
- Resuscitation equipment
- Access to advanced airway expert

Additional equipment may include:

- Stitch cutter
- 10 ml syringe
- Bougie
- Bag Valve mask (BVM)
- Rebreathe mask
- Nebuliser circuit

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Prepare for difficulty

Procedure

- All equipment checked and patient fully informed and in comfortable position
- Any tapes, ties or sutures are removed, assistant hold tube
- Suction is performed prior to tube removal
- The tube is removed on expiration
- Stoma can be swabbed and cleaned where necessary, appropriate airtight dressing applied
- Encourage patient to apply gentle pressure to the dressing when coughing and speaking

Post procedure

- Documentation, use care pathway, specify level of respiratory monitoring
- Keep emergency tracheostomy in the bed space for 48 hours

• 2222 emergency anaesthetic support.