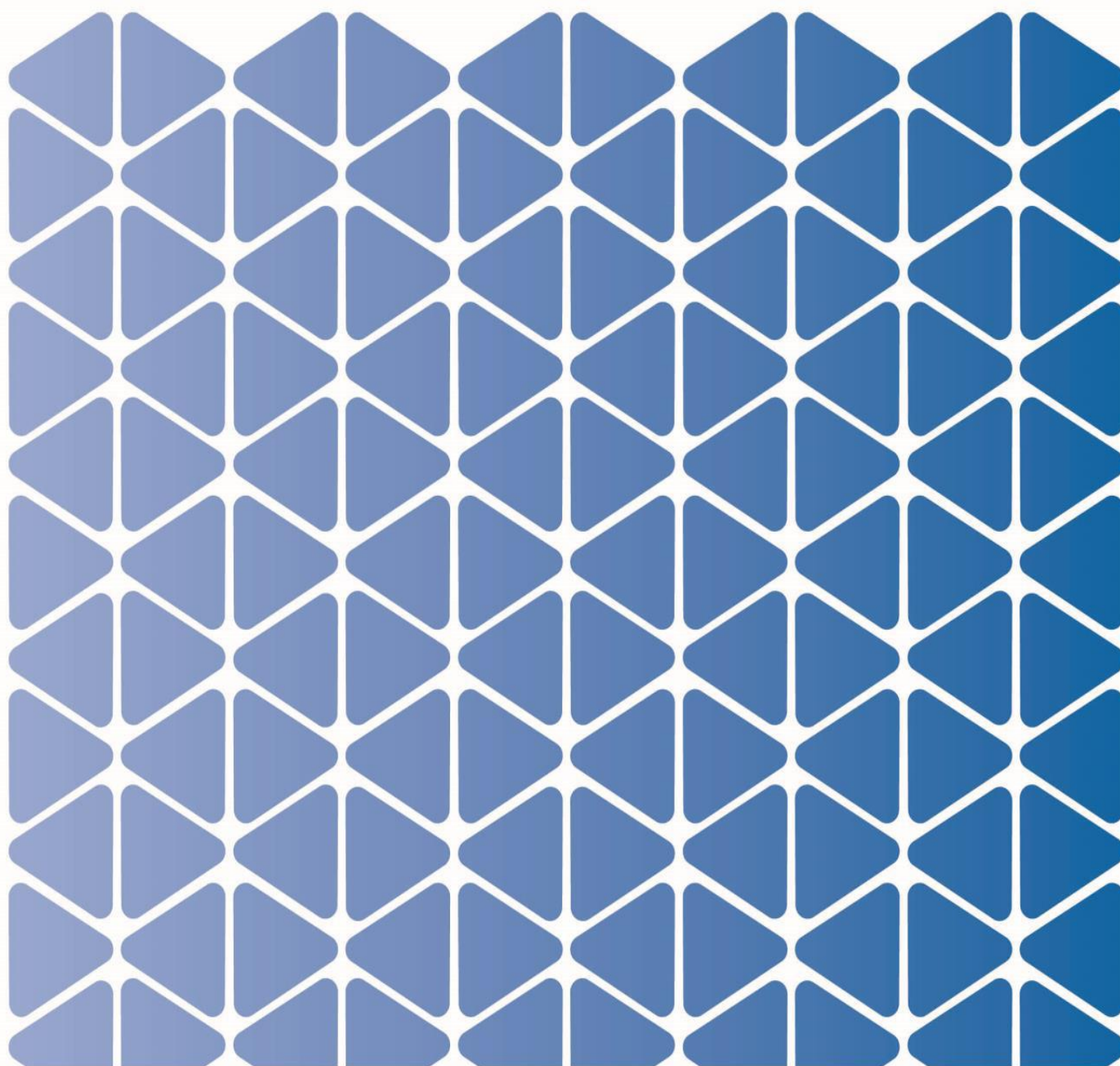


ADULT TRACHEOSTOMY

PATIENTS/CARERS

INFORMATION AND ASSESSMENT PACK



Name of Patient

Date of insertion

Type of tracheostomy

Size of tracheostomy

Fenestrated or unfenestrated

Fenestrations are small holes on the back of the tracheostomy (see diagram) which aid airflow around the tracheostomy to improve comfort and voice

Cuffed or uncuffed

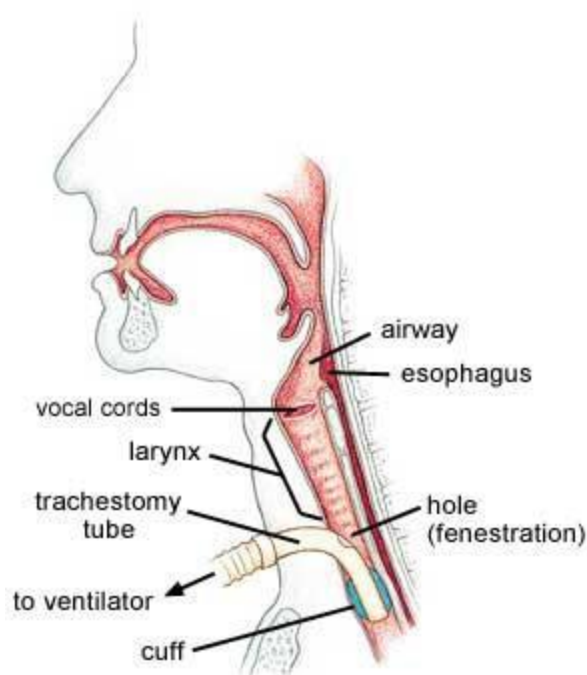
A cuff is a small balloon around the tracheostomy (see diagram) to help keep it in place and prevent choking if swallowing is poor

Subglottic suction port (only with cuffed tracheostomy)

A subglottic suction port is a hole in the shaft of the tracheostomy tube, just above the cuff which is connected to a suction port to remove any secretions that pool above the cuff.

Recommended suction catheter size

Diagram of a Tracheostomy tube in place



What is a Tracheostomy?

A Tracheostomy is a surgical opening into the windpipe (trachea) through the neck, with the insertion of an indwelling tube.

The main reasons for having a tracheostomy is for bypassing an airway blockage above the neck, or for clearing of chest secretions due to an inability of clearing the secretions independently.



Tracheostomy tube with inner tubes



Cuffed Tracheostomy tube with subglottic suction port

Changes in function of your nose, mouth and vocal cords:

When a tracheostomy is in place it bypasses some of our normal structures in our head and neck. This means that they might no longer function properly

These structures include:

Nose – as we breathe through our nose the air that we breathe is warmed, moistened and filtered – with a tracheostomy the air is taken in directly to the trachea/windpipe so is therefore cold, dry and unfiltered which can lead to drying of secretions and difficulty clearing them. Reduced flow of air around the nose can also cause an altered sense of smell, which in turn can affect your sense of taste.

Because of this it is essential that you have some form of 'moisture and filtering' for your tracheostomy, this may be in the form of a small foam filled cassette called an '**HME**' or '**Swedish nose**' that fits onto the end of your **tracheostomy tube**. You may also wear a '**stoma bib**'. The relevant equipment and its use will be discussed with you prior to discharge. You will probably be discharged home with **nebulisers** to also help to loosen your secretions.

Tracheostomy HME / 'Swedish nose'



Stoma Bib



Nebuliser chamber and Tracheostomy mask

- **Mouth** – for passage of food/drink to your oesophagus (foodpipe) and then stomach. With a tracheostomy swallowing food/drink may become difficult and could cause choking because of the food going down the wrong way onto your lungs (aspirating). This in turn could lead to chest infections. For this reason, your swallow will be assessed by a Speech and Language therapist to ensure that you are swallowing safely.
- **Vocal cords** - Air passes over the vocal cords to generate a voice. The airflow to the vocal cords could be significantly reduced because of the tracheostomy or even stopped completely if you have a cuffed tracheostomy, thus your voice could be very weak or non-existent. A fenestrated tube and a speaking valve can be used to improve airflow and voice if appropriate.

Communication is encouraged in the form of writing things down, and mouthing words whilst in hospital as it is essential that you communicate how you are feeling to the hospital staff, thus avoiding the sensation of isolation. It is important to have the call buzzer close to you whilst you are hospital.

Caring for a Tracheostomy:

1. Changing Inner Tubes:

- Check the inner tube three times every day.
 - When you wake up,
 - in the middle of the day
 - Before you go to bed.
- Clean it/change it if you see any secretions (phlegm) inside.
- You may need to check and clean the inner tube more frequently if you are producing a lot of secretions or they are particularly thick.
- Always have a clean inner tube ready to put in, while you are removing/cleaning the dirty one.

Procedure: 1 person procedure

- Wash hands/apply gloves and apron if required
- Ensure all equipment is present:
 - Emergency box (in case of accidental dislodging/blockage)
 - Suction machine on and ready to use with appropriate suction equipment (a cough may be induced with this procedure)
 - Clean inner tube
- Keep one finger on the tracheostomy baseplate at all times to avoid accidental dislodging/ unnecessary movement/discomfort
- Using the correct grip remove the tracheostomy inner tube from the baseplate and wash as per instructions below.
- Clear any secretions voided by this procedure with the yankeur if necessary.
- Insert clean inner tube initially from the side then in a downwards motion
- Ensure the new inner tube is secured into place on the tracheostomy base plate.

Cleaning the inner tube

- Complete using cooled boiled water and cleaning sponges or gauze to remove all visible secretions.
- Air dry and store in sealed pot ready for the next use.

2. Tracheostomy Stoma Dressings and securing Tracheostomy Tapes:

Change the tracheostomy dressings at least once a day or more often if it becomes soiled. Tracheostomy tapes require changing once a week or more often if soiled.

Procedure: 2 person procedure

- Wash hands
- Prepare necessary equipment
 - Emergency box (in case of accidental dislodging/blockage)

- Suction machine on and ready to use with appropriate suction equipment (a cough may be induced with this procedure)
- Clean dressing & tapes
- 1 person to hold the tracheostomy securely in place throughout the procedure
- Neck slightly extended to allow easier access to the stoma
- Used/soiled tapes to be removed by undoing Velcro each side of the tracheostomy base plate and dressing removed, then disposed of.
- Assess the stoma site (around the tracheostomy) if red, inflamed, sloughy /showing signs of infection, then contact your GP
- Clean area with cooled boiled water and dry with sterile gauze
- Barrier cream can be applied if necessary & prescribed
- Velcro the new tape holder into position either side of the tracheostomy base plate and the securely fastened around the neck
- Ensure correct fit – loose enough to fit 2 fingers between the neck and tapes.
- Apply clean dressing from the bottom upwards around the tracheostomy ensuring the 2 ends meet at the top.

3. Heat and Moisture Exchanger/Filter:

Always wear a Heat Moisture Exchanger (HME) or a stoma bib over the tracheostomy tube to ensure the air you breathe is warm, moist and filtered. This is especially important at night, to help keep the secretions loose.

Procedure: 1 person procedure

- Wash hands/apply gloves and apron if required
- Keep one finger on the tracheostomy baseplate at all times to avoid accidental dislodging/ unnecessary movement/discomfort
- Using a pinching grip gently pull the used/soiled HME from the tracheostomy tube and dispose of appropriately.
- Attach the clean HME to the base plate by gently pushing it on... ensure you give counter pressure with your other hand on the baseplate so not to just push the tracheostomy into the neck and cause discomfort/coughing.

Tracheostomy Suctioning

Airway suctioning is a way of removing excess mucus from your upper airway by insertion of a catheter via the tracheostomy tube and application of suction to clear the secretions. Many problems can cause too much mucus to collect in the airway and clearing these may help the patient to breathe better.

1. Preparation

When to suction:

- Where possible suction should be avoided and secretions should be cleared by coughing and use of nebulised saline.
- Where there are signs of excessive secretions in the upper airway (eg. visible secretions around tracheostomy, audible secretions at back of throat, sensation of secretions at back of throat) which cannot be cleared from the tube by coughing alone
- Where secretions are causing the patient to become distressed and making breathing difficult e.g. coughing/choking/difficulty getting air in.

When not to suction:

- Active bleeding from tracheostomy – unless in an emergency
- Severe wheeze

Possible complications of suctioning to be aware of:

- Trauma and damage to the lining of the airway/wind pipe
- Introduction of Infection through poor hand hygiene/technique
- Decreased oxygen levels in the blood – causing shortness of breath
- Plugging of secretions, blocking off airway
- Rapid pulse - normally increased from stimulation
- Changes in blood pressure
- Vomiting/gagging
- Prolonged coughing leading to rise in Blood Pressure/pulse rate
- Collapse of small areas of the lung
- Distress/anxiety

Suction should only be performed if required – Therefore ask yourself the following:

- Is this worse than 'Normal' for you/them?
- What are your/their secretions like normally – volume and colour – has this changed?
- Is your/their breathing rate normal for them?
- Is your/their breathing effort more than normal?
- Can you feel any secretions on their/your chest?
- Are you/they flushed/ pale/grey/blue in colour?
- Do you/they have any pain/ are they irritable, uncomfortable?

Things to consider before suctioning:

- Allow at least 1 hour after feed if possible
- Position – sat upright if possible, if not side lying if at risk of vomiting
- Give a nebuliser to loosen secretions - if required
- Give oxygen if prescribed and if patient known to get short of breath when suctioned.
- Wash hands
- Apply a clean pair of non-sterile gloves

Equipment required for suctioning:

- Suction machine – always leave in a clean, working state. Check suction pressure is correct
- Oxygen available if required
- Suction catheters
- Clean gloves
- Spare inner tubes including 'plain, ones if fenestrated tube present
- Cooled boiled water to flush/clean through the suction tubing
- Tissues



Leardal Suction unit for home

2. Suction Technique via a Tracheostomy:

- Ensure you have a plain inner tube in place. (If a fenestrated inner tube is present it will need to be changed prior to suctioning due to risk of damage to the windpipe)
- Give oxygen if prescribed and needed.
- Turn the suction unit on at the switch.
- Check that the suction pump is working well, by occluding the end of the suction tubing with your thumb to ensure you feeling a suction pressure. If not see: Suction unit 'Trouble shooting' section.
- Ensure suction pressure is set correctly as advised by the hospital **(15-18 Kpa or 112 – 135 mmHg)**
- Open the appropriate size sterile catheter and connect to the end of the suction tubing.
- Apply another of clean (non-sterile) glove over the glove that's present already on your dominant hand (double glove technique)
- Remove the catheter from the cover, with your double gloved hand, try to avoid letting the end of the suction catheter touch the surrounding environment to ensure as clean a technique as possible.
- With NO suction applied, slide the catheter gently into the tracheostomy tube until resistance is felt. And no more than 15cm. The patient will probably cough prior to this point.
- When you feel resistance, withdraw the suction catheter slightly (≈ 1 cm to avoid trauma) and then apply suction by putting your thumb over the suction catheter hole.
- Keeping suction applied, withdraw the suction catheter slowly, making sure that available secretions are cleared effectively, without rotating the catheter. This should take no longer than 15 seconds
- If resistance/tugging is felt when withdrawing the catheter out, take off the suction and withdraw slightly before reapplying.
- Once catheter is out, wrap the catheter around the double gloved hand and remove the glove keeping the catheter inside. Do not re-use.
- Dispose of waste correctly.
- Reassess how you/they feel, do they feel they/you feel your chest is clear. Note the amount/colour of secretions cleared
- Apply oxygen if needed.
- Wash hands and flush/clean suction tubing once finished with, with cooled boiled water.

Things to consider after suctioning:

- Was your suction technique effective?
- Do you need to repeat it?
- Do you need to change your technique?
- What else could you do to make the suction more effective?
 - Different position?
 - Larger catheter?
 - Better humidification?
 - Could a nebuliser help to loosen secretions more?

Type of Secretions – looking out for chest infections:

Secretions can be an indicator that you/they may have a chest infection. It is important to keep an eye on what is *normal* for you/them

If you notice any of the following changes in your/their secretions, it may indicate that an infection is present:

- Thicker/harder to clear secretions
- More secretions present – increased need for suction
- A change in colour – darker/green/orange/yellow
- Smelly secretions

Normally coupled with other changes e.g.:

- Irritable
- Sleepy
- Feels hot/flushed has a high temperature
- Coughing more
- Difficulty breathing/ more short of breath

If there is any change in what is normal for you/them then this may mean that a chest infection is present and you should make an appointment to see your GP as soon as possible, to see if antibiotics are required.

If required, your District Nurses can obtain a sputum specimen. This can then be sent off to be tested to see if antibiotics are required.

Cleaning/maintenance of equipment:

Please refer to manufacturers guidelines if any concerns or contact the Head & Neck ward at WRH if any issues with this equipment - 01905 760545

1. Your Suction unit model.....

Set to pressure:.....

2. Cannisters: these are usually non disposable

- Use disinfectant to wash the cylinder of the suction unit, and let it dry naturally after use

Suction unit Troubleshooting :

Problem	Action
Unit does not turn on	Ensure battery charged Check power connections if running from wall outlet
Pump runs, but no vacuum	Check that the tubing is connected properly Check tubing connections for breaks or leaks Check for leaks or cracks in the bottle assembly Ensure bottle is not full
Low vacuum pressure	Check system for leaks Use vacuum adjustment knob to increase vacuum level Push vacuum adjustment knob and then release

What to do in an Emergency

What should I do if the tracheostomy becomes blocked?

- Remove the inner tube and replace with a clean one.
- If you are still in difficulty, suction the tracheostomy tube.
- Then have a nebuliser, suction again as necessary.
- If you are still in difficulty, call **999** immediately.

What should I do if the tracheostomy becomes dislodged or falls out?

- Open your emergency tracheostomy box
- Keep calm as you should still be able to breathe, but immediately:
- If you have been taught to do so, try to put the whole tube back into the stoma in your neck or use a new spare tube if you have been provided with one. If concerned about your breathing it is advised to get the position of the re-inserted tube checked by either visiting your local Emergency department out of normal hours or contacting the H&N CNS.
- If you are unable to do this, call 999 and use the 'tracheal dilators' to hold the hole open, while you wait for help to arrive.

Useful contact numbers:

(Please add to this section prior to discharge)

Head and Neck Ward - 01905 760545

Head and Neck Clinical Nurse Specialist - 01905 761440

Tracheostomy equipment needed for home:

The ward nursing team will arrange this for you when you are ready for discharge.

1. **One week's supply of consumables** to be sent home with patient from the ward
When home these then should be topped up by the District Nurses

- Suction catheters- appropriate size
- Yankuer suction tubes
- Box of gloves
- Nebulizer chamber and mask with tubing
- Trache tapes
- Stoma bibs
- HMEs/filters

2. **Emergency equipment** to be sent home and kept separately to other equipment
This should be taken everywhere with the patient and kept fully stocked at all times

- Spare inner tubes
- Spare tracheostomy tube
- Water soluble lubricating gel
- Sterile dressing pack
- Appropriate size suction catheters
- Tracheostomy tapes
- Tracheal dilators
- Gloves

3. **Non consumable Tracheostomy equipment** sent home with you from the ward
Contact the Head & Neck ward at WRH if any issues with this equipment
- 01905 760545

- Nebuliser unit
- Suction machine
- Tracheal dilators

Adult Tracheostomy Skills Assessment

- This assessment should be used in conjunction with the Trust's 'Adult Altered Airway Patients – Discharge guideline and Care pathway.
- The Assessor should be an appropriately trained RGN with suction experience /Senior Physiotherapist
- Complete both **Theory** and **Practical Skills Assessment** (4 sections) before signing off.

NAME OF PATIENT	
NAME OF CARER	
ASSESSOR	
DESIGNATION OF ASSESSOR	
DATE OF ASSESSMENT	

1. Background Knowledge Assessment - Tracheostomy

QUESTION	ANSWER To be completed by the learner prior to practical assessment.
1. Why might you/an adult have a tracheostomy performed?	
2. What normal parts of the body are now bypassed	
3. What are the implications of losing these bodily functions?	
4. What are the precautions to consider prior to Tracheostomy Care being performed?	
5. How often should the tracheostomy inner tube be changed/ cleaned?	

6. What would indicate that a tracheostomy inner tube needed to be changed/ cleaned?	
7. What type of inner tube should not be used when suctioning?	
8. How often do the tracheostomy tapes need to be changed and why?	
9. How many people are needed to change the tracheostomy tapes and why?	
10. How do you know that the tracheostomy tapes are tight enough?	
11. How often should the tracheostomy stoma site and dressing be cleaned/ changed?	
12. How would you clean a tracheostomy stoma site?	
13. What might you see if the stoma site was infected and who would you report it to?	
14. Name 3 possible complications of tracheostomy care?	
15. What signs would indicate that the tracheostomy tube was blocked?	
16. What would you do if the tracheostomy tube was blocked?	
17. What would you do if the tracheostomy tube became dislodged/fell out?	
18. How often should the whole tracheostomy tube be changed?	
19. How would you safely dispose of soiled tracheostomy dressings/tapes/inner tubes?	

2. Practical Skills Assessment - Tracheostomy

PRACTICAL ASSESSMENT CRITERIA	PRACTISED + OBSERVED (Initial and Date)	FINAL ASSESSMENT COMPLETE
1. Checks emergency equipment.		Y / N
2. Checks suction equipment is working and set at the correct pressure.		Y / N
3. Ensures all equipment required is present.		Y / N
4. Ensures patient comfort throughout		Y / N
5. Uses universal infection control and hand hygiene practices.		Y / N
6. Maintains patient's privacy & dignity and the child is adequately prepared.		Y / N
7. Explains procedure to patient and gains consent. Reassures patient throughout the procedure		Y / N
8. Selects the correct inner tube		Y / N
9. Carries out the inner tube change procedure safely and effectively using a clean technique		Y / N
10. Carries out the tapes change procedure safely and effectively using a clean technique and 2 persons present		Y / N
11. Carries out the stoma cleaning and dressing change safely and effectively using a clean technique		Y / N
12. Disposes of soiled dressings/ tapes/inner tubes appropriately.		Y / N
13. Replaces oxygen /humidification if appropriate.		Y / N
14. Evaluates patient's condition on completion of the procedures.		Y / N
15. Ensures the patient is comfortable before leaving them.		Y / N
16. Ensures equipment is cleaned/maintained appropriately and left ready for next use		Y / N
17. Disposes of clinical waste approp.		Y / N

3. Background Knowledge Assessment - Suctioning

QUESTION	ANSWER To be completed by the learner prior to practical assessment.
1. How would you assess that suction is required?	
2. What are the precautions to consider prior to suctioning?	
3. What else could be done prior to suctioning to aid sputum clearance?	
4. What should the suction pressure be set at?	
5. How long should the procedure last?	
6. Name 3 possible complications of suctioning?	
7. How would you identify the signs of infection and what action would you take?	
8. How would you assess the effectiveness of your suction and the need for further suction?	
9. If your suction did not clear the secretions what could you do to make it more effective?	
10. How do clean/maintain the suction unit?	

4. Practical Skills Assessment - Suctioning

ASSESSMENT CRITERIA	PRACTISED + OBSERVED (Initial and Date)	FINAL ASSESSMENT
1. Checks emergency equipment.		Y / N
2. Checks suction equipment is working and set at the correct pressure.		Y / N
3. Ensures all equipment required is present.		Y / N
4. Ensures patient comfort throughout		Y / N
5. Calculates the correct size of suction catheter required.		Y / N
6. Uses universal infection control and hand hygiene practices.		Y / N
7. Maintains patient's privacy & dignity		Y / N
8. Explains procedure to patient and gains consent. Reassures patient throughout the procedure		Y / N
9. Carries out suction procedure safely and effectively using a clean technique taking less than 15 secs		Y / N
10. Disposes of soiled suction catheter and glove appropriately.		Y / N
11. Replaces oxygen /humidification if appropriate.		Y / N
12. Flushes suction tubing with water.		Y / N
13. Ensures equipment is cleaned/maintained appropriately and left ready for next use		Y / N
14. Disposes of clinical waste appropriately		Y / N

On-going daily record of training - Patient record

- Patient/carer to fill in

Date and time	Session outline	Trainer name and designation	Patient sign & print
<i>e.g.: 13-01-24 14:00 Hrs</i>	<i>Theory on tracheostomy inner tube changing</i>	<i>Catherine Smith Head and Neck CNS</i>	<i>.....</i>

Altered Airways Training - Final Assessment

Patients/Carers should have completed all aspects of Tracheostomy/Laryngectomy (delete as appropriate) care as per the 'Adult Altered Airway Patients – Discharge guideline'. This final assessment is to be filed in the patients' medical notes.

Assessor/s – all Individuals involved in training programme:

Name	Position held	Signature
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Overall Assessment:

I certify that the below named person, has been instructed and observed in carrying out these procedures safely and effectively.

Name _____ Initial _____ Signature _____

Position held _____

Date _____

Parent/Carer

I the BELOW named CARER/PATIENT certify that I am happy to carry out the above procedures within the assessment detailed above. I understand the scope of these skills. I will only use this training in respect of the person specifically named on the front of this form and I will not carry out procedures, which are contrary to or not covered by this training.

I will seek further training if I have any concerns about my skills. In all other respects I will seek all necessary advice guidance and further training needed from time to time in order for me to continue to operate safely within these skills

Name _____

Signature _____

Date _____

Tracheostomy Follow Up Clinic:

Worcester Royal Hospital, Linden Suite

Contact - Direct dial 01905 760171

CNS Lead: Catherine Ball - Direct dial 01905 761440

Please write any planned follow up appointments and Tracheostomy changes here:

Date	Time	Comments

If your symptoms or condition worsens, or if you are concerned about anything, please call your GP, 111, or 999.

Patient Experience

We know that being admitted to hospital can be a difficult and unsettling time for you and your loved ones. If you have any questions or concerns, please do speak with a member of staff on the ward or in the relevant department who will do their best to answer your questions and reassure you.

Feedback

Feedback is really important and useful to us – it can tell us where we are working well and where improvements can be made. There are lots of ways you can share your experience with us including completing our Friends and Family Test – cards are available and can be posted on all wards, departments and clinics at our hospitals. We value your comments and feedback and thank you for taking the time to share this with us.

Patient Advice and Liaison Service (PALS)

If you have any concerns or questions about your care, we advise you to talk with the nurse in charge or the department manager in the first instance as they are best placed to answer any questions or resolve concerns quickly. If the relevant member of staff is unable to help resolve your concern, you can contact the PALS Team. We offer informal help, advice or support about any aspect of hospital services & experiences.

Our PALS team will liaise with the various departments in our hospitals on your behalf, if you feel unable to do so, to resolve your problems and where appropriate refer to outside help.

If you are still unhappy you can contact the Complaints Department, who can investigate your concerns. You can make a complaint orally, electronically or in writing and we can advise and guide you through the complaints procedure.

How to contact PALS:

Telephone Patient Services: 0300 123 1732 or via email at: wah-tr.PALS@nhs.net

Opening times:

The PALS telephone lines are open Monday to Friday from 8.30am to 4.00pm. Please be aware that you may need to leave a voicemail message, but we aim to return your call within one working day.

If you are unable to understand this leaflet, please communicate with a member of staff.