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**Tracheal Suctioning and Care**

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1. **Purpose & Application**

This policy has been developed to provide guidance and information about how to support people who are receiving oxygen.

**What is a tracheostomy?**

**Training**

**Essential care principles**

**Cleaning the tracheostomy tube**

**Care of the stoma**

**Clearing secretions including suction**

**Problems that may be encountered**

**Emergency resuscitation**

The policy will apply to:

* **Permanent employees**
* **Temporary employees**
* **Agency workers**

It will be the responsibility of managers to take any necessary action if this policy is not adhered to, taking into account the relevant regulatory responsibility.

1. **Responsibilities**

**The nominated individual** is accountable for the implementation of this policy in its entirety. They are a key contact for the service.

**The registered manager and any trained nurses** are responsible for the implementation of this policy.

**Any care staff** that have had a competency assessment in the care and support of persons with a tracheostomy.

1. **Legislation and Regulation**

**Health and Social Care Act 2008 (Regulated Activities) Regulations 2014: Regulation 12**

The intention of this regulation is to prevent people from receiving unsafe care and treatment and prevent avoidable harm or risk of harm. Providers must assess the risks to people's health and safety during any care or treatment and make sure that staff have the qualifications, competence, skills and experience to keep people safe.

Providers must make sure that the premises and any equipment used is safe and where applicable, available in sufficient quantities.

Providers must prevent and control the spread of infection. Where the responsibility for care and treatment is shared, care planning must be timely to maintain people's health, safety and welfare.

CQC understands that there may be inherent risks in carrying out care and treatment, and they will not consider it to be unsafe if providers can demonstrate that they have taken all reasonable steps to ensure the health and safety of people using their services and to manage risks that may arise during care and treatment.

CQC can prosecute for a breach of this regulation or a breach of part of the regulation if a failure to meet the regulation results in avoidable harm to a person using the service or if a person using the service is exposed to significant risk of harm. They do not have to serve a Warning Notice before prosecution.

1. **Tracheal suctioning and Care**

A tracheostomy is an opening into the windpipe through which a specifically designed tube can be passed, this opening is called a stoma. This artificial airway permits the individual to breathe through the tube. The most common reason for performing a tracheostomy is to bypass an upper airway obstruction. This is usually a temporary surgical procedure as part of the treatment. However, some individuals such as those who have undergone laryngectomy may have a permanent stoma which may or may not have a tracheostomy tube in place.

**Training**

All staff must be trained in tracheostomy care and assessed as competent by a nurse or other appropriately trained health professional before carrying out these procedures. Any agency Registered Nursing staff seconded to the organisation, must be trained in tracheostomy care and staff profiles must be available for reference and inspection of up-to-date training.

Some individuals with a tracheostomy may wish to carry out their own tracheostomy care. Risk assessments must be carried out to identify any areas of risk and support put in place to mitigate these risks wherever possible. Tracheostomy specialists should be involved in these assessments.

**Essential Care Principles**

• Maintaining the safety of the individual – preventing airway obstruction.

• Facilitating communication.

• Preventing complications for example infections.

Although there are various types to meet individual needs, the different parts of a tracheostomy are: an outer cannula, Tracheostomy plate, an inner cannula cuff, air inlet valve and line, pilot cuff and an obturator or guide.

The outer cannula fits into the tracheostomy and maintains the opening during healing. The tracheostomy plate is a flat plastic hinge attached to the outer cannula. It has holes on either side so that ties can be put in and tied around the neck. This keeps the tube from falling out.

The inner cannula locks into the outer cannula and can be taken out for regular cleaning. Cleaning the inner cannula keeps the airway clear of mucous.

The obturator is used only when the entire tracheostomy tube is changed. It acts as a guide when the outer cannula is put into the tracheostomy which lessens irritation to the tracheostomy wall.

Plate or Flange: The flat plastic plate attached to outer tube which lies flush against the individual’s neck.

Cuff: Inflatable air reservoir (high volume, low pressure) - helps anchor the tracheostomy tube in place and provides maximum airway sealing with the least amount of local compression. To inflate, air is injected via the air inlet valve: One-way valve that prevents spontaneous escape of the injected air, air inlet line: Route for air from air inlet valve to cuff, Pilot cuff: Serves as an indicator of the amount of air in the cuff.

**Cleaning the tracheostomy tube (reusable inner cannula only)**

The inner cannula of the tracheostomy tube should be cleaned at least once a day, or more often as per the individual’s needs. This is to keep it clean and free of secretions.

Equipment

• Sterile pack, tracheostomy foam, new tube 2 bowls - 1 for cleaning, 1 for rinsing.

• Long pipe cleaner, cotton-tipped applicator sticks, or a tracheostomy brush

• Sterile water

• Cleaning solution 0.9% sodium chloride

Procedure

• Gain consent

• Wash the hands and put on disposable gloves, apron and goggles

• Undo dressing pack, Place 0.9% sodium chloride in bowl

• Individual to be in a SEMI RECUMBENT POSITION WITH NECK EXTENDED, ASSESS IF

SUCTION IS REQUIRED PRIOR TO PROCEDURE.

• Or oxygen saturation to be at a minimum of 95%

• IF CUFFED tube then deflate the tube

• Loosen the inner cannula while holding the neck plate of the tracheostomy still,

• then turn the inner cannula to the right to unlock

• Remove the inner cannula steadily by pulling it down and toward the individual

• Place inner cannula in sodium chloride solution and do not soak, use brush to remove crusts

• Use the brush to clean the inside, outside and creases of the tube

• Do not use scouring powder or cloths

• Look inside the inner cannula to make sure it is clean and clear of mucus

• Replace sponge if required

• Re-insert it while holding the neck plate of the tracheostomy still

• Turn the inner cannula until it locks into position

• Double check the locking pulling forward gently on the inner cannula

• Ask the individual to take a few breaths

• Clean tracheostomy brush with sodium chloride solution, rinse and leave to dry

• Wash bowls and dispose of clinical waste appropriately

• Wash hands

**Caring for the stoma**

Clean the stoma, or area of skin around the outer cannula at least once a day, or as often as needed to keep it clean and dry.

If a tracheostomy dressing is in place, then it must be changed whenever it gets soiled and whenever the stoma is cleaned. Tracheostomy dressings are not always worn but if used may prevent skin irritation and keep clothing dry.

Equipment

• Disposable gloves

• Gauze or cotton cloth

• 0.9% normal saline if the skin is red or sore

• Cotton-tipped applicators

• Barrier cream as prescribed

• Tracheostomy dressings if they are being worn

• Bag for disposal of waste

Procedure

• Ask the individual to choose a comfortable position

• Take off the old dressing

• Wash hands well and put on disposable gloves

• Wet the disposable cloth with sterile water, gently clean the outer cannula and skin around it

• Cotton tipped applicators may be used for “hard-to-get” areas under the tracheostomy plate dry with clean gauze

• Look closely at the stoma site for any signs of infection

• Inform the GP or specialised tracheostomy nurse if you notice any redness, swelling, irritation, bleeding, green discharge or food

• Put on a new dressing with the open ends up (if worn)

• Dispose of waste and wash hands

**Changing the tracheostomy tie**

Change any soiled tracheostomy ties.

Equipment:

• Twill tape or Velcro® tracheostomy holder

• Scissors

• A helper

Procedure

• Cut a piece of twill tape long enough to go around the neck twice, leave some extra for tying

• Cut the ends on an angle

• Remove tracheostomy dressing

• Cut and remove the old tracheostomy ties

• It is good practice to have a colleague or ask the individual to hold the tracheostomy when the ties are being changed because it is possible to cough out the tracheostomy tube.

• Insert 1 end of the tracheostomy tie through the opening on 1 side of the tracheostomy plate

• Pull the 2 ends of the tracheostomy tie together so they are even

• Wrap the ties around the neck and put the end of the tie that is closest to the neck through the opening on the other side of the tracheostomy plate

• Tie both ends together in a firm knot on the side of the neck

• Do not tie a bow because it may come undone

• One finger should fit between the ties and the neck

• Put the new tracheostomy dressing on with the open ends up, if required

• Combine cleaning the inner cannula, caring for the stoma, and changing the tracheostomy ties all at the same time

• If Velcro tracheostomy ties are used follow makers instructions when using them.

**Clearing secretions including suction**

Suctioning should be done only when needed to make breathing easier. Initially encourage coughing to remove the secretions.

Suctioning of the tracheostomy tube takes secretions from the airway when they cannot be coughed up.

If the individual with the tracheostomy is prone to mucous plugs, has a lot of secretions, or has needed a lot of suctioning while in hospital, a suction machine will be required.

Follow any specific instructions concerning suctioning given by the individual’s health professional

Equipment:

• Suction machine, connecting tubes and suction catheter – the right size for the tracheostomy set up according to manufacturer’s instructions

* Size 6 tracheostomy – Size 10fg suction catheter (max)
* Size 7 tracheostomy – Size 12fg suction catheter (max)
* Size 8 tracheostomy – Size 14fg suction catheter (max)
* or suction catheter size (Fg) =2x (size of tracheostomy tube -2)

• Sterile water

• A bowl

• Disposable gloves

Procedure

• Wash hands, dry and put on gloves

• Open the catheter package and connect the catheter to the suction machine tubing taking care not to touch the tip

• Turn on the suction machine

• Moisten the catheter by dipping it into a clean container of sterile water and test suction by placing your thumb over the port of the catheter and release

• Make sure the head and shoulders are slightly elevated

• Insert the catheter into the tracheostomy tube for about a third of its length, remove your thumb off the opening on the adaptor.

• Try to stimulate a cough while doing this

• Place the thumb on and off the opening on the adaptor to apply suction as you pull out the catheter in a smooth, rotating motion, the lowest vacuum pressure should be used 100-120mmHg or (13-16kPa)

• Withdrawal should last no more than 10 -15 seconds

• Rinse the catheter of secretions by suctioning through a small amount of sterile water.

• If needed, repeat these steps until airway is clear

• Give the individual time to catch their breath between suction passes

• Appropriately dispose of the suction catheter and other clinical waste

• Clean the equipment and replace the tube as per maker’s instructions

**What to do:**

**If the individual is finding it hard to breathe (Dyspnoea):**

• Check for secretions in the tracheostomy tube

• Take out the inner cannula to check for mucous and clean, if necessary, then replace

• If breathing does not get better, keep using the humidity, and ask the individual to cough hard, keep the humidifier running beside you or use the hose with tracheostomy mask attached

• There may be secretions in the windpipe beyond the tracheostomy tube again, try and get the individual to cough and if that does not work, use the suction machine to remove any mucous

• If the secretions/mucous are thick, sticky, and/or hard to cough out, consider taking steps to make them thinner (see below)

• Inform GP if you notice more secretions than normal, or if they change colour as it may indicate infection

**If the individual continues to find it hard to breathe (Dyspnoea):**

It is unlikely that this will happen, but if it does it is either because the tube has slipped out of position, or it is more likely that secretions have been coughed up and are plugging the tube.

• Reassure the individual

• Try removing the inner cannula and check it for a plug, if it is clear, put it back in and continue to ask the individual to cough hard

• Turn up the humidity and encourage deep breathing

• Aspirate the tube using the suction machine

• If that does not work to clear the airway, cut the ties and take out the tube

• Ask the individual to cough hard or suction through the stoma

• If that is not effective, call emergency services

**If the tracheostomy tube comes out**

• Reassure the individual as the stoma will stay open

• Tilt the head back to keep the stoma opening larger

• Call for assistance

• Cut the ties and put the tube back in using the same motion you used to insert the inner cannula and tie the tracheostomy tube in place

• If the individual has trouble breathing hold a suction catheter placed about 2 inches inside the stoma and ask the individual to breathe through it until you can get the tube back in.

**Keeping secretions thin and manageable – Humidifiers**

It is important to keep the secretions thin so that they can be coughed out easily and avoid the need for suctioning.

Normally the nose acts as an air conditioner by filtering and humidifying the air you breathe. After tracheostomy surgery, the air that enters the stoma is dry and unfiltered as it does not go via the nose. Dry air can cause plugs of mucous to form and clog the airways and these plugs create a place for bacteria to grow and may cause infection. These conditions make the secretions thick and hard to cough out and may make breathing more difficult. There are several things that can be done by staff to prevent the secretions from getting thick.

• Encourage the individual to drink 6 to 8 glasses of fluids a day (water is best) but always check these daily amounts with GP

• Keep the ultrasonic humidifier running beside the individual or use the hose with tracheostomy mask attached

• Follow the makers instructions for operating and cleaning the ultrasonic humidifier machine

• Use distilled water for operating, not water straight from the tap and clean the mask and hose with mild soap and water then rinse well with sterile water and let air dry

• If secretions are thick, hard to cough out or have small blood streaks, increase the humidification

• Use the humidifier as much as needed to keep the secretions thin and able to be coughed out

• If there are still problems, instill drops of normal saline into the airway

• If the individual is away from the humidifier for short trips, they should carry a small mist bottle with sterile water to keep the airway moist

• When the individual is off the humidified oxygen it is important that they wear a Heat Water Exchanger (HME) over the tracheostomy tube all the time, this is especially important at night to help keep the secretions loose

• Encourage the individual to sleep in a cool room at night as this may help to keep the airway moist

• Encourage or carry out mouth care to improve comfort and prevent infections in the mouth

• Rinsing the mouth with normal saline or plain water can be helpful

**Effects of having a tracheostomy.**

**Communication**

Being able to speak is very important to all of us. Speech takes place by air moving through the vocal cords in our windpipe as we breathe out. A tracheostomy is below the vocal cords, so most of the air that is breathed out goes through the tracheostomy tube although some air may pass by the tube and through the vocal cords. The amount of speech that depends on how much air reaches the vocal cords. It can be very frustrating and distressing to lose the ability to speak even if it is only temporary. A pen and paper to write messages is essential until a more permanent un-cuffed tube is in place. It is important to get support from the SALT team during this time.

**Swallowing**

Swallowing food and liquid may be hard for some individuals, it can be improved by:

• Sitting individuals in the 45°reclining sitting position

• Eating slowly

• Chewing the food well

• Focusing on the swallowing

• Getting support from the salt team

• Informing a health professional immediately if there are food or liquids in the cough secretions

**Emotions**

Many people have a variety of emotions before surgery, while in the hospital or afterwards and these are normal reactions. For some, the amount of disfigurement caused by having a tracheostomy can be very distressing. Feelings of anger, frustration and depression are normal, and it will usually take a while to come to terms with and adjust to the change.

It is good to encourage the individual to get support either from family and close friends or they may choose to speak to a health professional.

Diet and exercise

• A well-balanced diet

• Plenty of fluids

• Exercise as much as possible unless told otherwise by the doctor

Protection from the flu

• Encourage the flu and pneumonia immunisation every year, unless there are contraindications

• Avoid crowded spaces and people with the flu or being close to people with a cold virus

**Stoma/tracheostomy covers**

Stoma/tracheostomy covers prevent dirt and dust from getting into the airway. These will also warm the air on cold days and might help to prevent embarrassment from an unexpected cough.

**Stoma shower shields**

Water must be prevented from entering the tube. A shower shield can help to protect the airway from water while showering or bathing

**Important information**

• The following information must be recorded in the individuals care plan

• Tracheostomy tube and tracheostomy cut

• Make of tube

• Size

• Type

• Date inserted

• Date of replacement(s)

• Contact number

• Name of GP

• Specialist tracheostomy nurse/outreach nurse

• Other hospital or health professionals

• A tracheostomy kit is to always accompany the individual and must be checked each shift by the nurse or trained staff member caring for the individual

Tracheostomy Kit

• 1 tracheostomy tube of the same size in situ (with introducer if applicable)

• 1 tracheostomy tube one size smaller (with introducer if applicable)

• Spare inner tubes for double lumen trach tubes

• Spare ties (cotton and Velcro)

• Scissors

• Resuscitation bag and mask (appropriate size for individual)

• One-way valve (community use only)

• Wall or portable suction machine fitted with filter and suction tubing

• Appropriate size suction catheters

• Saline solution

• 0.9% sodium chloride solution

• Sterile water to rinse tubing

• Gauze swabs

• Cotton tipped applicators

• Water based lubricant for tube changes

• Bowl or container

• Mucous trap-for emergency suction

• Heat moisture exchanger (HME) also known as Swedish nose or Buchanan bib

• Tape

• Tracheostomy shower shield

• Oxygen cylinder if required

• Room humidifier

• Disposable gloves and aprons

• Clinical waste bags

• Syringe to inflate or deflate cuffs

**Emergency Resuscitation**

In the event of an emergency, call for medical assistance.

Clear the airway.

• Lie the individual on their back

• remove any clothing obstructing the tube

• wipe away any mucous from the tube

• make sure the tube is clear

Check for breathing

• Listen and feel with your hand for air escaping from the tube

• Watch the movement of the chest and abdomen

If there is no regular breathing proceed to resuscitation

• With the individual on their back, extend the neck by placing a support under the shoulders and putting the head back.

• Seal the nose and mouth by placing two fingers each side of the nose and place use thumb to cup the chin

• Take a breath and seal the lips around the tube and blow into the tube until the chest rises

• Release the fingers between each blow

If the chest does not rise

• Check that the tube is clear

• Check that you have a good seal around the tube and repeat

• blow into the tube every 4 seconds until medical help arrives

Using a Big Valve Mask (BMV), proprietary name Ambu Bag to resuscitate

• An Ambu bag is used during an emergency to help an individual breath, it is a squeezable bag that has a face mask

• Ambu bags are varying sizes for adults, children and infants

• An Ambu bag consists of one-way valve, bag and adapter

• The bag can be attached directly to a tracheostomy

• The one-way valve in the device allows for flow of oxygen to the individual and prevents backward flow of exhaled air

Operating the big valve mask (Ambu bag)

• Position the individual on their back on a firm surface

• Breath twice into the tracheostomy using the Ambu bag and watch for the chest rising

• If you have oxygen available attach the oxygen to the Ambu bag.

• If you are unable to get air in, suction the tracheostomy tube using saline drops if necessary and repeat the 2 breaths

• The recommended length for each breath is 1 second to raise the victim’s chest

• Follow UK resuscitation council basic life support procedures of 30 chest compressions and 2 rescue breaths

• Mouth-to-tracheostomy ventilation

• Mouth-to-tracheostomy ventilation may be used for a person with a tracheostomy tube or tracheal stoma who requires rescue breathing

Following the emergency incident, clean any equipment following maker’s instructions and store with Resuscitation Equipment.

**[Insert here** where to be stored and any other details relating to your organisation and use of the Ambu-bag]

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| **Service Specific Information** | |
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**5. Equality Impact Assessment**

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| **Equality impact assessment checklist** | | **Yes/No?** | **Comments** |
| **1.** | Does the procedural document affect one group less or more favourably than another on the basis of: | No |  |
|  | * Race? | No |  |
|  | * Ethnic origins (including gypsies and travelers)? | No |  |
|  | * Nationality? | No |  |
|  | * Gender? | No |  |
|  | * Culture? | No |  |
|  | * Religion or belief? | No |  |
|  | * Sexual orientation including lesbian, gay and bisexual people? | No |  |
|  | * Age? | No |  |
| **2.** | Is there any evidence that some groups are affected differently? | No |  |
| **3.** | If you have identified potential discrimination, are there any exceptions valid, legal and/or justifiable? | N/A |  |
| **4.** | Is the impact of the procedural document likely to be negative? | No |  |
| **5.** | If so, can the impact be avoided? | N/A |  |
| **6.** | What alternatives are there to achieving the procedural document without the  impact? | N/A |  |
| **7.** | Can we reduce the impact by taking different action? | N/A |  |

If you have identified a potential discriminatory impact of this procedural document or need advice, please document the action required to avoid/reduce this impact.