Family Nursing & Home Care

Standard Operating Procedure

Care and Management of a Child or Young Person with a Tracheostomy

01 December 2021

Document Profile

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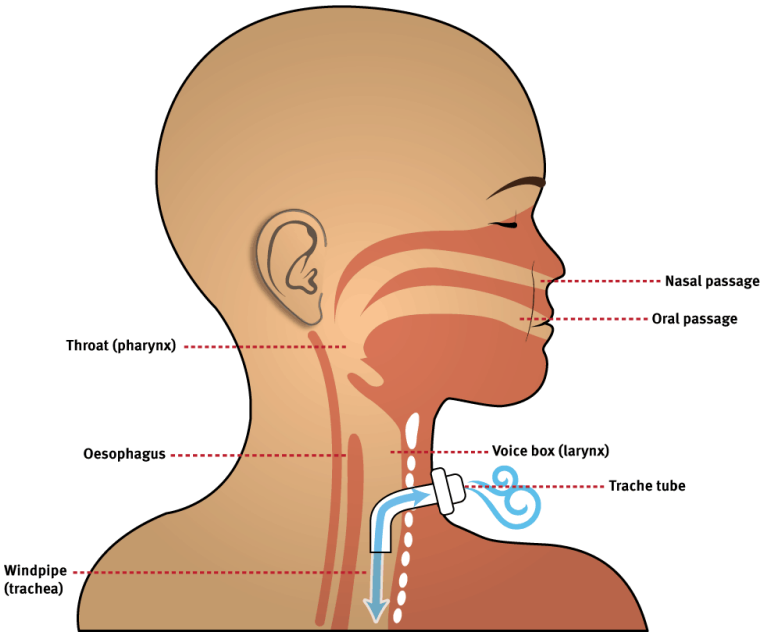
Version Control / Changes Made

Date	Version	Summary of changes made
October 2021	2	All care plans have been complied, reviewed and edited to create an upto date standard operating procedure.

Contents

Introduction

A tracheostomy is an artificial opening into the trachea via the front of the neck. A tube is inserted and creates an effective way of breathing when the child is unable to do this through their nose and mouth. A tracheostomy can be short term during an acute illness or lifelong if a child or young person has a condition that requires the tube stays in place for the child to breathe. The tube is held in place by tube holders (or tapes) that are worn around the neck.



This standard operating procedure (SOP) has been developed to guide the practice of the Community Children's Nursing staff in the provision of safe and effective tracheostomy Management.

The tracheostomy care included in this document are:

- Care of a tracheostomy site
- Tracheostomy Suction
- Humidification
- Tracheostomy Tube Change
- Emergency Tracheostomy Tube Changes
- Unable to Insert a tracheostomy tube
- Basic Life support with a tracheostomy
- Seldinger Technique
- Handover of care
- Monitoring Vital Signs of a child or young person with a tracheostomy.

- Training other care givers
- Infection Prevention and Control

Overarching guiding principles for safe and effective practice when using this SOP

- These standard operating procedures do not replace professional judgement which should be used at all times
- A clear rationale should be presented in support of all decision making
- Practice should be based on the best available evidence
- Appropriate escalation when care needs have this requirement
- When care is delegated to a non-registrant, the registered nurse remains accountable for the appropriateness of the delegation and the overall outcome of the delegated task.
- The CCNT will follow the FNHC Safeguarding Policy, and ensure that any potential safeguarding issues are identified and reported appropriately.

SOP 1 Care of the Tracheostomy Site

Purpose

Keeping the tracheostomy site clean and dry will help to prevent infection and the potential for skin breakdown. If secretions from the tracheostomy collect around the stoma they can act as a medium for bacterial growth. They can also prevent the site from healing properly

Scope

This SOP details how to care for the tracheostomy site including infection prevention and control requirements

Core Requirements

Apply standard infection control precautions to prevent the spread of infection between infants/children/young people and to protect both the child receiving care and the person providing the care.

Whilst undertaking any care of a tracheostomy, good hand hygiene should always be undertaken alongside the use of the correct personal protective equipment (see 'Hand Hygiene and use of Personal Protective Equipment policy and procedures https://www.fnhc.org.je/procedural-document-library/)

In the home setting, it is not always necessary to use sterile equipment as used in hospital because the child is exposed only to the germs present in their own family home

Adhere to the National Institute for Clinical Excellence (NICE) recommendations on 'Infection control: prevention of healthcare – associated infection in primary and community care.' https://www.nice.org.uk/guidance/cg139

See Appendix 1 for a step by step guide inclusive of the rationale behind the care of a stoma site.

SOP 2 Performing Tracheostomy Suction

Purpose

A tracheostomy requires suctioning at various times to clear secretions from the tube. These secretions would normally be cleared naturally by coughing and swallowing but this mechanism is interrupted by the position of the tube which means secretions build up inside the tube and have to be cleared by suction instead.

Scope

This SOP details how to perform tracheostomy suctioning

Core Requirements

The child or young person must be kept comfortable and able to breathe freely.

See Appendix 2 for a step by step guide inclusive of the rationale behind tracheostomy suctioning. This procedure is not without risk and if not carried out correctly can cause discomfort, trauma, hypoxia (low oxygen levels) and infection.

SOP 3 Performing Humidification via a Tracheostomy

Purpose

It is important that adequate humidification and suction are used throughout the day and night if necessary, to minimise the risk of producing thick tenacious secretions that may obstruct the tracheostomy tube and airway causing respiratory distress

Scope

This SOP details how to perform humidification via a tracheostomy

Core Requirements

Humidification can be given in various ways and the methods recommended by the Children's Community Nursing Team are:

- H.M.E. (Heat and moisture exchange device – often called a 'Swedish nose')
- nebulised saline via a tracheostomy mask or T piece
- saline instillation may sometimes be indicated despite these measures i.e. resistance to catheter, plug secretions or dry secretions causing distress

See Appendix 3 for a step by step guide inclusive of the rationale behind Humidification via a tracheostomy.

SOP 4 Changing a Tracheostomy Tube

Purpose

Tracheostomy tube changes are usually carried out routinely.

Scope

This SOP details how to change the tracheostomy tube.

Core Requirements

Depending on the type of tracheostomy tube used, it will require changing from between 1 – 4 weeks

The individual infant/child/young person's routine should be recorded in their care records/care plan.

In the hospital setting, the tube is single use only but when in the community (home, school and respite centres) some tubes can be washed following the manufacturer guidelines and re-used.

The procedure is not without risks and in order to increase safety, it is important to plan the tube change when two competent and fully trained people can be present.

When planning the tube change, it is advisable to avoid just after feeds or meals. Taking the tube in and out of the airway can induce coughing which in turn may cause the child to vomit.

Tube changes are best done when the child is calm, not when they are tired or irritable.

See Appendix 4 for a step by step guide inclusive of the rationale behind a tracheostomy tube change.

SOP 5 Performing an Emergency Tracheostomy Tube Change

Purpose

Tracheostomy tube changes are usually carried out routinely however there may be times when this has to be done in an emergency. If the tracheostomy tube becomes blocked or misplaced it must be changed immediately to maintain the child's airway.

Scope

This SOP details how to perform an emergency tracheostomy tube change.

Core Requirements

Carry out an emergency tube change if there is a concern that the tube is blocked for any reason

Follow the guidance for a normal tube change acting in a swift and prompt manor.

All equipment required for an emergency tube change should be found in the infant/child/young person's emergency tracheostomy box.

If the emergency tube change is successful but there are any concerns about the infant/child/young person's condition or patency of the airway, dial 999 for assistance from the emergency services and transfer to hospital for medical assessment and intervention.

An emergency tube change can be carried out at any time by a competent practitioner.

Lone individuals should temporarily use a set of Velcro tapes to secure the tube in place. Change for the usual tapes as soon as there is someone who is competent and trained to assist.

A set of pre-cut Velcro ties should be available in the emergency kit.

See Appendix 5 for a step by step guide inclusive of the rationale behind an emergency tube tracheostomy tube change. This also includes information on Basic Life Support for a child or young person with a tracheostomy tube alongside the Seldinger Technique.

SOP 6 Training parents/carers/Non-Registrants in tracheostomy care

Purpose

Any person caring for a child or young person with a tracheostomy must be trained to do this and be assessed to be competent in undertaking all aspects of tracheostomy care. Registered nurses may be required to teach Non-Registrants within their team or parents/informal carers.

Scope

Nursing staff teaching and assessing others to undertake tracheostomy care for infants, children and young people on the Community Children's Nursing Team (CCNT) caseload, in the home setting, school setting and other community settings.

Core Requirements

This Standard Operating Procedure should be used in conjunction with current version of The National Tracheostomy Patient Project http://www.tracheostomy.org.uk/

All children requiring tracheostomy care in the community must have been referred to the CCNT by their local paediatrician and accepted onto the caseload by the CCNT Team Leader (see Standard Operating Procedures - Children's Community Nursing Team - Admission to Discharge Pathway).

All tracheostomy care requirements of the infant/child/young person will be agreed by the team lead for CCNT in conjunction with their named nurse, paediatrician and tertiary centre professionals (Namely Southampton General Respiratory Nurses) prior to any commencement of care or approval onto the CCT caseload.

Full training and successful achievement of all competencies (see relevant appendices) must have been undertaken prior to an individual undertaking lone care of an infant/child/young person with a tracheostomy. All tracheostomy care should be undertaken by fully trained and competent persons only.

The following training levels are to be used with the competency frameworks in this document:

LEVEL 1 Competent to assist in this activity.

LEVEL 2 Competent to practice this activity with support from a Level 3 competency assessed individual.

LEVEL 3 Competent to practice this activity in a timely manner without the need for supervision.

In order to achieve competency in all areas of tracheostomy care, parents and care givers should have completed:

- the Tracheostomy Training Package for Parents and Care Givers
- Paediatric Basic Life Support and Life Support for a Tracheostomy Patient

Where tracheostomy care is to be undertaken by a Non-Registrant working as part of the Children's Community Nursing Team, module 7 of the training package in this link http://www.tracheostomy.org.uk/e-learning should be successfully completed, including the

assessment. A copy of the certificate should be sent to the Education and Training Department and one kept in the staff member's Knowledge and Skills portfolio.

Training completed by a Non-Registrant in the Children's Community Nursing team should be done on a named child basis with full and complete re-training should they be required to care for additional children.

The relevant competency frameworks in the appendices should be used to assess the Non-registrant's skills. A copy of the completed frameworks should be kept in the staff member's Knowledge and Skills portfolio and updated as required.

SOP 7 Handover of Tracheostomy Care

Purpose

Providing a comprehensive handover of care will promote the safety of the infant/child/young person by ensuring that important information is shared and care transfer is seamless.

Scope

Handover of the care of infants, children and young people with a tracheostomy to Registered Nurses, parents/carers or Non-Registrants

Core Requirements

Prior to the commencement of any tracheostomy care, a full hand over from the previous caregiver (be that a parent, relative or other health care professional) should be taken. This should include any interventions required such as nebulisation needed, oxygen given and medications required and/or the condition of the child or young person e.g. has it been noted that they are coughing more than usual etc. Recognition must also be given to the child or young person's vital signs if they have been taken. See the link attached for the monitoring and recording of vital signs Standard Operating Procedure for the CCNT: https://www.fnhc.org.je/media/42943/sop-assessment-measurement-monitoring-of-vital-signs-as-indicators-of-health-or-deterioration-4418.pdf)

At the start of every shift the care giver should check the:

- Emergency Tracheostomy box to ensure all items required are present and in date/correct working order - this should remain with the child/young person at all times and a copy of the box's contents should be laminated and found in the underside of the lid for a reference (Appendix 2)
- Child/young person's tracheostomy ties are the correct tightness, clean and intact – if this is not the case then a tracheostomy tie change should be completed with the care giver from the previous shift

Appendix 1 Care of Tracheostomy Stoma Site

Equipment required when cleaning a stoma site.

1. Sterile gloves. (In the community may not have to be sterile)
2. Sterile gauze in the hospital environment. (In the community may not have to be sterile)
3. Sachet of normasol. (In the community can use cooled, boiled water).
4. Clean dressing for stoma site if clinically indicated.
5. Clean tube holders.
6. Sterile scissors in hospital. (Clean scissors in community).
7. If clinically indicated any topical medication or barrier cream to be applied.

Procedure for Tracheostomy Stoma Site

PROCEDURE	RATIONALE
1. Wash hands and put on apron.	1. To reduce risk of infection to the stoma site.
2. The stoma site should be assessed daily. If the stoma site is clean and dry do not clean unnecessarily.	2.To allow assessment of the stoma site
3. Prepare the equipment needed on a clean surface. Measure and cut the new tracheostomy tube tapes to the child's size.	3. Organisation will ensure procedure is performed effectively.
4. Ask a partner to place the child in a safe position usually supine with neck extended.	4. To facilitate access to the tracheostomy.
5. Using a clean technique put on your gloves. Decided which hand will be clean and which you will use to dispose of material.	5. To maintain a clean technique throughout the procedure.

6. Dip gauze into normasol or water and gently clean away any debris.	6. To clean stoma site and maintain asepsis.
7. Clean underneath the wings of the flange on the tracheostomy tube.	7. To ensure all the neck area is cleaned.
8. Working in the same direction dry the area using gauze.	8. To prevent skin irritation if skin is left moist.
9. Apply dressing if indicated as routinely a dressing is not always necessary.	9. To organise and assess the dressing if needed.
10. If the skin appears inflamed or red, consider potential infection and take appropriate action.	10. Recognise the need for referral.
11. The type of tracheostomy tube tapes used is assessed on a needs bases.	11. To ensure the best tapes are used for security and comfort.
12. Tracheostomy tube holders should be changed on a daily basis by two people: Assistant – Wash hands and apply gloves. Hold the tracheostomy tube in position using thumb and index/ middle finger. Support back of child's head if in sitting position. Observe position of the tube at all times while working with the primary carer. Do not release the tube until instructed to do so by the primary carer. Primary Carer – Wash hands and apply gloves.	12. Two people are necessary to keep the tube secure. To prevent infection. To ensure the tube stays in position and maintains the airway.

To remove old tapes cut the tapes between the knot and the flange on both sides of the tube. Remove the old tapes. Use water and gauze to gently clean both sides and the back of the neck.	To prevent infection.
Dry thoroughly. Place the new tapes around the back of the neck and line-up the position equally on each side of the tube.	To keep skin clean and healthy. To ensure tapes are comfortable.
Thread the new tape through the flange on the side furthest away from you and knot 3 times. Gently check the tension of tapes around the back of the neck ensuring they are straight and not caught in hair or clothing.	To avoid knot coming undone and to keep tube securely in position.
Thread the new tape through the flange nearest to you and tie in a bow. Check the tension of the new tapes by raising child into a sitting position – it should be possible to slip one finger comfortably between the back of the neck and the tapes. If the tapes are too tight or too loose position the child as before, undo the bow and adjust the tapes. Repeat until tapes are the correct tension.	The bow is used until tension of the tapes is correct. To safely obtain the correct tension. To avoid knot coming undone and to keep tube securely in position.
If you are sure the tapes are the correct tension, re-position child and carefully release bow to replace with 3 knots. Cut off excess tapes to leave about an inch remaining.	
13. The primary carer may now instruct the assistant to release hold on the tracheostomy tube.	13. To ensure tube is kept in position until new tapes securely tied.

Competency in the Care of Tracheostomy Stoma Site

Date and sign each level as many times as is needed to achieve competency.

Procedure	Discuss	Level 1	Level 2	Level 3
1. Demonstrate Hand Washing. 2. Prepare child and equipment 3. Demonstrate cleaning of site 4. Recognise need for advice 5. Demonstrate/observe how to apply appropriate tracheostomy dressing if indicated and tube holder.				

ACHIEVED COMPETENCE – DATE …….

SIGNED ……

DATE RE-ASSESSMENT REQUIRED ……..

Appendix 2 Procedure for Tracheostomy Suction

Equipment required for suction

1. Suction machine with tubing attached.
2. Oxygen, only if clinically indicated.
3. Suction Catheters- correct size.
4. Bowl with sterile water, (tap water in community)
5. Disposable gloves and apron (if necessary in the community)
6. Monitor, if clinically indicated.

PROCEDURE	RATIONALE
1. Check all equipment is available and in working order.	1. Maintain patient safety.
2. Use a suction catheter that is double the number of the size of the tracheostomy tube, with a side port for control of suction. Eg for a size 3.0 tracheostomy tube use a size 6Fr suction catheter. (For tubes with half sizes, use the suction catheter a size lower, eg for a size 4.5 tracheostomy tube, use a size 8Fr suction catheter). Suction formula to work out how far down to go is length of the tube plus 3cm. If suctioning through the HME the depth required will be greater and assessed on an individual basis.	2. The diameter of the suction catheter should be no more than half the inner diameter of the tracheostomy to prevent hypoxia. A multi-eyed catheter should always be used. Tracheostomy tube is a size---------- Use suction catheter size---------- HME in use? Yes ☐ No ☐ Suction to a depth of---------cm.
3. A plain inner tube is inserted if a fenestrated tracheostomy tube is in situ.	3. It is possible to insert the suction catheter through the fenestrated tracheostomy tube in situ and cause trauma.
4. Test suction pressure by placing over end of suction tubing for 5-10 seconds.	4. There is a risk of hypoxia and trauma to the lung tissue if suction pressure is too high.
5. Watch maximum pressure achieved on gauge and adjust as required **Neonates –**	5. To minimise the risk of trauma associated with suctioning.

PROCEDURE	RATIONALE
60 mmgh (12Kpa) **Infants 6mths to 1 year –** 80-100 mmgh (14Kpa) **Children over One –** 120 mmgh (20Kpa)	
6. Explanation of procedure given to child/parents/ carer	6. To help prepare child/parents/ carer.
7. Assess need for suction by assessing the child's respiratory system : ➢ Colour (pale or cyanosed) ➢ Respiratory pattern – increased breaths or increase in work of breathing. ➢ Signs of respiratory distress – crying (this may also increase amount of secretions) or coughing with the sound of excessive secretions in the tube. ➢ Amount of secretions – visible at the opening of the tube or bubbling into HME (Swedish nose). ➢ Decreased oxygen saturations due to secretions building up in tube.	7. It is essential to have completed a base line assessment in order to be able to continue to assess the child or young person during the procedure. **Be aware that suction can be hazardous** ➢ Loss of colour ➢ Hypoxia (low oxygen level) ➢ Trauma ➢ Bleeding ➢ Infection ➢ Pain and discomfort
8. It there are indications that the amount of secretions are adversely affecting the patient, suction is required.	8. To maintain a clear airway.
9. Prepare patient for procedure. Preferred methods are ➢ Lying on side ➢ Standing ➢ Sitting	9.To reduce risk of aspiration of stomach contents during cough/ vomiting.

PROCEDURE	RATIONALE
10. Wash hands or use alco-gel if outside. Put on disposable apron (if required).	10. To reduce the risk of cross infection
11. Attach suction catheter to suction tubing ➢ Peel back catheter cover to expose hard plastic connector. ➢ Leave rest of catheter in protective cover.	11. To ensure that the end of the catheter remains sterile prior to use.
12. Put on disposable gloves. One glove to the dominant hand is acceptable.	12. The gloved hand must be used to insert the suction catheter. Do not touch the sterile end of the catheter.
13. Remove catheter with gloved hand, insert again if necessary keeping end sterile then discard.	13. To maintain sterility of the end of suction catheter and prevent cross infection.
14. Check baseline observations and breathing pattern immediately prior to insertion of catheter.	14. To provide a baseline assessment to enable early recognition of any potential complications of the procedure. When reassessing refer to procedure 1.
15. Remove any oxygen delivery systems, devices or speaking valves with un-gloved hand, unless able to suction through them.	15. To provide access to airway in order to insert the suction catheter.
16. Insert catheter to tracheostomy tube with thumb off the suction port, to required depth. Apply suction after inserting catheter and apply constant suction as catheter is withdrawn – no longer than 5 seconds.	16. Reduces incidence of hypoxia and suction induced trauma, right upper lobe collapse and trauma to the lining of the airways. The whole procedure should last no longer than 10-15 seconds.
17. If secretions are thick or coating refer to guidelines for humidification.	

PROCEDURE	RATIONALE
18. Monitor child during procedure and immediately after procedure reassessing child's respiratory status.	17. To maximise removal of secretions whilst minimising damage or trauma.
19. If the child deteriorates during procedure, stop suction and initiate resuscitation measures as stipulated in the resuscitation guidelines until child recovers.	18. Early detection of any complication of suctioning may require intervention. Evaluation of the effectiveness of the procedure and reassessment of the child.
20. Reattach any ventilation oxygen delivery and devices or speaking valves.	19. To prevent deterioration and promote full recovery.
21. Reassess for suction.	20.To maintain child's safety and comfort
22. Catheters should not be used more than twice and when finished roll up in a glove (if worn) and disconnect from tube. Dispose of safely.	21. Evaluation of effectiveness and to determine if there is a need for further Intervention
23. Flush tubing with water.	22. To maintain sterility of the suction catheter and to prevent spread of infection and to prevent the introduction of infection.
24. Switch off suction source.	23. Refer to infection control for advice.
25. Do not attach a suction catheter to suction tubing until ready to suction again	24. Noise reduction and maintain battery life.
	25. Suction catheter will become contaminated.

Competency in Suctioning the Tracheostomy Tube

Procedure	Discuss	Level 1	Level 2	Level 3
1. Demonstrate hand washing 2. Discuss knowledge of indications for suction 3. Discuss dangers of suction 4. Demonstrate knowledge of when further intervention is required 5. Discuss and demonstrate appropriate positioning of the child 6. Demonstrate and discuss equipment required for suction 7. Demonstrate and discuss knowledge of suction depth. 8. Discuss safe suction pressures. 9. Demonstrate tracheostomy tube suction. 10. Demonstrate appropriate				

disposal of waste.				

ACHIEVED COMPETENCE – DATE ……

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DATE RE-ASSESSMENT REQUIRED……

Appendix 3 Humidification

- Humidification can be given in various ways and the methods recommended in this training package are:
- H.M.E. (Heat and moisture exchange device – often called a 'Swedish nose'.)
- Nebulised saline via a tracheostomy mask.
- Saline instillation may sometimes be indicated despite these measures i.e. resistance to catheter, plug secretions or dry secretions causing distress.

Procedure for Humidification

Procedure	Rationale
1. Assess the need for humidification, indications • Sticky/thick secretions not cleared with suction alone.	1. To ensure correct procedures are carried out. To ensure a baseline assessment.

• Whistling or crackling noises from tracheostomy tube. • Difficulty passing suction catheter due to mucus plug or thick secretions in tracheostomy site.	
2. Decide which method of humidification is necessary and most appropriate at this time.	2. To ensure that correct equipment and technique is used.
3. HME - Apply HME and assess child.	
Assess effectiveness after a few minutes.	3. To ensure HME device is tolerated by child.
Apply suction as necessary.	To ensure HME is loosening secretions. To clear secretions from tracheostomy tube.
Reassess child for continuing need of HME.	If secretions remain thick consider alternative method of humidification.
4. Nebulised Saline – Set up nebuliser machine with necessary tubing and chamber and mask.	4. To prepare nebuliser for use by child.
Draw up 5 millilitres of 0.9% sodium chloride from plastic ampoule into a syringe and squirt into chamber of nebuliser.	To ensure effective delivery of nebulised sodium chloride.
Place tracheostomy mask over tracheostomy and adjust elastic so it fits snugly.	To monitor if child is tolerating nebulised sodium chloride.
Turn on nebuliser machine and monitor child throughout procedure.	To recognise and minimise any risk of respiratory distress.
When nebuliser has finished or If child starts to cough, indicates the need for suction or shows any signs of distress,	

stop nebuliser immediately and remove tracheostomy mask. Apply suction following guidelines. Reassess child for continuing need of nebulised sodium chloride.	 To remove secretions from tracheostomy tube. If secretions remain thick consider alternative method of humidification.

Competency for Humidification

PROCEDURE	Discuss	Level 1	Level 2	Level 3
Demonstrate and discuss knowledge of indications for humidification. Demonstrate the procedure/equipment required for providing appropriate humidification Demonstrate and discuss knowledge of when further assistance is required. Demonstrate appropriate disposal of equipment.				

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Appendix 4 Procedure for Tracheostomy Tube Change

Equipment required:

- Trolley or tray
- Sterile Gloves (does not have to be sterile in the community)
- Tracheostomy Tube
- Tracheostomy tube holder
- Dressing if applicable
- Lubricating jelly (if required).
- Suction
- Oxygen/ ambu bag (if required).

Procedure	Rationale
1. Explain the procedure to child and family.	1. To facilitate effective communication minimise fear/anxiety.
2. Wash hands or use alco-gel if outside.	2 To reduce/prevent the risk of infection.
3. Prepare the equipment on a clean surface.	3. To ensure all equipment is prepared to facilitate a speedy and safe change.
4. Lubricate the new tube with a small amount of water-based lubricant on the outside bend of the tube.	4. To assist smooth placement of new tube.
5. Ensure the introducer is secure in the middle of the tube (it may be useful to make certain that the introducer moves freely in and out before changing the tube).	5. To ensure introducer can be removed swiftly once new tube in place.
6. Decide with a partner who will remove the old tube and who will insert the new tube. Decide who will be assisting to hold	6. To ensure both people work as a team and the procedure is carried out smoothly.

the new tube once in place and who will apply the tapes.	
	7. To facilitate access to change the tracheostomy tube, ensuring easy access to tracheostomy site.
7. Prepare the child in the correct position for the tube change. Usually in the supine position with a rolled up towel under the shoulders to extend neck area. Baby may be wrapped in a blanket.	
	8. To reduce the risk of cross infection
8. Put on disposable gloves and an apron if required (NOT in an emergency tube change).	
	9. To remove any secretions from the tube prior to change.
9.Suction tracheostomy tube if required following suction protocol	
	10. To ensure new tube can be swiftly secured into place.
10. Place a new set of tapes behind child's neck.	
	11. To ensure swift removal of tube.
11. Remove any ventilation, oxygen devices or speaking valves.	
12. The tube change: • Assistant – hold the old tube in position using thumb and index/ middle fingers. • Be constantly aware of working with the primary carer. • Primary carer - Carefully cut /release old tapes and pull out of the way. • Warn patient and swiftly take out old tube and replace with new tube. • Remove the tracheostomy tube from the stoma with a curved action.	12. To avoid patient coughing tube out. To ensure patient is aware at the point of tube change. To ensure smooth removal. To avoid trauma when inserting new tube. To establish a clear airway.

• Quickly insert the new tube using the introducer with a downward curving motion. • Immediately remove the introducer. • Check the child is breathing properly, assistant to give suction if required.	To ensure safe practice. 13. To secure tube safely.
13. Secure new tube in place using guidelines to apply tracheostomy tapes.	14. To communicate effectively throughout procedure.
14. Once both partners are confident the new tracheostomy tube is securely in position the tube can be let go of.	15. To ensure comfort and confidence in the procedure.
15. Reassure child and family.	16. To apply infection control measures.
16. Dispose of equipment safely.	
17. If tube will not go in follow emergency guidelines.	

Competency for Tracheostomy Tube Change

PROCEDURE	Discuss	Level 1	Level 2	Level 3
1. Demonstrate hand washing 2. Demonstrate preparation of equipment, the child and environment safety 3. Demonstrate the correct position of a child during a tube change. 4. Demonstrate a tracheostomy tube change and securing the tube				

5. Discuss equipment and procedure of emergency tube change 6. Demonstrate safe disposal of equipment				

ACHIEVED COMPETENCE – DATE……

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DATE RE-ASSESSMENT REQUIRED ……..

Appendix 5 Emergency Tube Changes in the Home, School and Community Setting

The following pages contain a flow chart for action to be taken if:

- unable to insert a tracheostomy tube - during either routine or emergency tube change
- required to apply the Seldinger Technique, to attempt to place a tracheostomy tube
- required to commence basic life support for a child with a tracheostomy

Unable to Insert a Tracheostomy Tube

Shout for help.

Instruct 999 call.

Insert a smaller sized tracheostomy tube.

Try inserting the smaller size tube carried in emergency kit.

If unsuccessful – Check breathing.

Assess ABC. Look, listen and feel for breath for 10 seconds.

No breathing – Give 5 rescue breaths.

Give 5 breaths either directly to tracheostomy stoma site or by nose/ mouth while occluding the stoma site.

Check for signs of circulation.

Is the child moving – are there any signs of life?

No sign of life – Give 30 chest compressions.

Depress the lower half of the sternum to a third of the depth of the chest at a rate of 100 per minute.

Continue 30 chest compressions to 2 breaths.

↓

After 1 minute - if no help has arrived you must go and call for help yourself. Take the child with you if this can be done safely.

Call 999 for emergency services assistance.

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If you have help – attempt to insert tracheostomy tube again.

If unsuccessful – use Seldinger Technique.

↓

Seldinger Technique

Thread the smaller tracheostomy tube contained in the emergency kit over a clean suction catheter that has had the thumb port cut off.

↓

Pass the suction catheter into the tracheostomy stoma to around the same depth that you use to suction.

Gently feed the tracheostomy tube over the suction catheter and ease into the stoma site.

If successful in placing tracheostomy tube – remove the suction catheter and apply emergency Velcro tapes to secure tube in place.

↓

COMMENCE BASIC LIFE SUPPORT

BASIC LIFE SUPPORT FOR A CHILD WITH A TRACHEOSTOMY

SAFE APPROACH

Shout for help. **A**pproach with care. **F**ree from danger. **E**valuate ABC.

Are you alright?

Check if tracheostomy tube is blocked – tilt head back and apply suction.

If tracheostomy tube is blocked – change the tracheostomy tube immediately.

Check for breathing (Look, listen and feel for breath for 10 seconds).

No breathing – Give 5 rescue breaths.

Give rescue breaths either directly onto tracheostomy tube or attach the catheter mount in the emergency kit and give rescue breaths through this.

Check for signs of circulation.

Is the child moving – are there any signs of life?

No sign of life – Give 30 chest compressions.

Depress the lower half of the sternum to a third of the depth of the chest at a rate of 100 per minute.

After 1 minute - if no help has arrived you must go and call for help yourself. Take the child with you if this can be done safely.

Call 999 for emergency services assistance.

References

Critical Care Practitioner (date unknown) Tracheostomy Care https://www.criticalcarepractitioner.co.uk/tracheostomy-care/ (accessed 20/05/21)

McGrath, B. (2013) Comprehensive Tracheostomy Care, National Tracheostomy Safety Project. (accessed 02/11/2021).

NTSP Manual (2013): http://www.tracheostomy.org.uk/storage/files/Comprehensive%20Tracheostomy%20Care.pdf (accessed 02/11/2021)