Acacium Group

Tracheostomy Tube Change (Adult)

Procedure Reference | SOP VENT 06

Version | V4.1

Procedure Name	Tracheostomy Tube Change (Adult)
Purpose of Document	To ensure that the correct preparation, procedure & outcome are achieved by implementing a consistent and systematic approach to Tracheostomy Change
Target Audience	All Nurses & appropriately trained carers
Version	V4.1
Author	Karen Matthews-Shard
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Equality Impact Assessment (EIA) Form	Acacium Group is committed to Equality, Diversity, and Inclusion and in line with our values, we strive to ensure that everyone that is part of the Acacium community is not disadvantaged or discriminated against given their individual need or characteristics. To support this, an Equality Impact Assessment has been undertaken on this policy/procedure. This information is held centrally and can be requested from the Clinical Governance Team.
About Acacium Group	Details of all Acacium Group trading companies that this policy applies to are detailed within Appendix A

Document History			
Version	**Date**	**Changes made/comments**	**By whom**
V1	Dec 2016	Implementation of document history page	KNF/VM
V1	Jul 2018	Annual review	KMS/SJ
V1.1	Feb 2020	Update to new Template	CC
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V4.1	Apr 2024	Reviewed and updated	Clinical Advisory Group

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1. Introduction

A tracheostomy opening created in the front of the neck, into the trachea, so a tube can be inserted to assist with airway patency and breathing. The tubes are curved to accommodate the anatomy of the trachea. Patency of the tube is paramount and therefore extreme care should be taken to ensure the tube is not displaced or blocked during the clients care and treatments.

The SOP links to Acacium Group policy Assisted Ventilation and associated SOP's and will be reviewed on a regular basis.

2. General and important points

Always obtain consent for any procedure to be undertaken. Should there be an absolute emergency, it is possible for carers to make decisions in the best interest of the client if these are clearly identified and documented and there are no advance decisions that dictate otherwise.
The type of tracheostomy tube used should be tailored to the client's condition and will depend on various factors such as length of weaning time, original reason for tracheotomy and type of secretions. The frequency for tube change should be as outlined in the clients care plan.

Emergency changes outside the client's routine may be required if the tube becomes blocked, dislodged or removed completely or if the client's condition deteriorates.

If clinically indicated that the tube is blocked, there should be no delay in inserting a new tracheostomy tube, unless the care plan states otherwise.

The emergency tube change must be carried out by a competent worker. It can be a one or two-person procedure.

If the client's condition does not improve, follow client's care plan, resuscitation guidelines and call 999.

Tube changes will irritate the client's stoma site and airway, this can lead to vomiting. It is therefore advisable to perform the tube change before a meal/feed or at least one hour after eating/drinking.

Clients should be observed closely throughout the procedure and their vital signs monitored and recorded, if possible (this may be retrospectively). Respiratory assessment should include respiratory rate, depth, and regularity. Chest movement should be symmetrical and equal.

It is paramount that you or a second nominated person (if available), always support the tube with one hand whilst performing the tube change.

In clients who are at risk of aspiration it is recommended that any enteral feed be stopped 3-4 hours prior to the procedure and the care plan may also note that the e enteral tube is aspirated immediately prior to the procedure.

3. Aim

To ensure that tubes are changed effectively and safely whilst minimising client's discomfort.

4. Equipment

Ensure you check the stock levels of the tube and if getting low notify the relevant person as per client care plan:

- Sterile dressing pack
- Pre-cut slim line keyhole dressing as prescribed if required
- Appropriately sized tracheostomy tube and one a size smaller as per care plan
- Tracheostomy catheter mount
- Tracheostomy tape
- Cleaning solution such as sterile sodium chloride or cooled boiled water
- Barrier cream, if indicated for the client
- Lubricating jelly
- Round edge scissors
- 10ml syringe for cuffed tubes
- Appropriate PPE in line with current guidelines
- Functioning suction unit and appropriately, sized suction catheters
- Resuscitation equipment
- Bactericidal soap or hand rub
- MAR sheet, if oxygen is required
- Appropriate waste receptacle
- Manometer

5. Definition of Terms

Obturator	Introducer
Fenestrated Tube	Has a hole in the outer tube which enables the passage of air and secretions into the oral and nasal openings.

6. Procedure

The procedure used for changing any tracheostomy tube will depend on the circumstances of that change.

There are two commonly used methods:

- Guided exchange using a tube exchange device - usually required for early changes and for clients with a high risk of airway loss
- Blind exchange using an obturator - for clients with formed stomas and low risk of airway loss.

Perform the procedure using clean technique.

Blind exchange using an obturator:

	Action	Rationale
1.	Explain and discuss procedure with the client.	To ensure the client understands the procedure and gives his or her valid consent.
2.	Check emergency equipment.	For readiness in event of emergency.
3.	Set up suction equipment and turn on.	In readiness for use.
4.	Position client in semi-recumbent position if possible.	To facilitate procedure and maintain a patent airway. Extending the neck will make removal and insertion of the tube easier (Cuff Management Tracheostomy.org).

5.	Wash hands thoroughly using bactericidal soap and water or bactericidal alcohol hand rub and dry.	To minimise the risk of infection.
6.	Put on appropriate PPE in line with current guidance.	Some clients may accidentally cough directly ahead of the nurse: standing to one side and wearing a disposable apron and eye protection will minimise transfer of secretions to nurse.
7.	Clean work surface and wash hands with bactericidal soap and water or bactericidal hand rub and dry.	To maintain safe environment and reduce the risk of contamination.
8.	Where required pre-oxygenate.	To ensure the client remains appropriately oxygenated.
9.	Remove the dressing pack from its outer wrappings and open the tracheostomy dressing.	To prepare sterile surface for the new tracheostomy tube.
10	**Prepare the tracheostomy tube as outlined below from 10a: Please ensure the correct tube size is used as per the client's care plan.**	
11a.	Secure the neck fixings (tapes/ties) to the flanges so that the flange is next to the stoma.	The neck fixing is kept behind the flange to prevent it occluding the passage of air in the tracheostomy tube.
11b.	If the new tracheostomy is cuffed, check the cuff by inflating it with air (according to manufacturer's instructions) and deflate the cuff.	To check for air leaks and spontaneous deflation (Cuff Management Tracheostomy.org).
11c	Insert the introducer or obturator, checking that it can be easily removed.	To become familiar with removing the introducer or obturator prior to insertion (Cuff Management Tracheostomy.org)).
12	Lubricate the replacement tube sparingly with a lubricating jelly and place on edge of open sterile dressing pack.	To facilitate insertion and maintain sterility.
13	If the old tube is cuffed, slowly deflate cuff, with suction applied if required.	Pooled secretions above the cuff may enter the lungs when the cuff is deflated (Cuff Management Tracheostomy.org).
14	Remove neck ties/tapes	To be able to remove tracheostomy.
15	Remove the soiled tube from the client's neck while asking the client to breathe out.	Conscious expiration relaxes the client and reduces the coughing. Coughing can result in unwanted closure of the tracheostomy.
16	If client is not oxygen dependent and stoma well formed, observe site, swab if site looks infected and clean stoma.	To minimise risk of infection.
17	Clean around the stoma with sodium chloride or	To remove superficial organisms and crusts. Skin

	cooled boiled water and dry gently. Apply barrier cream, if stated in the care plan. Swab stoma site if required.	around the stoma is at risk of breakdown to constant presence of moisture (Serra 2000). To assess for infection if required.
18	Insert tube with introducer/obturator in place, using an 'up and over' action. (Inflate cuff).	Introduction is less traumatic if directed along the contour of the trachea.
19	Remove introducer/obturator ***immediately***.	Client cannot breathe while introducer/obturator is in place.
20	Replace inner cannula where used.	To provide patency.
21	Check for airflow through tube.	To ensure patency.
22	If applicable, apply protective dressing to skin around stoma as per care plan.	To prevent skin excoriation due to secretions.
23	Secure the Tape/ties at the side of the neck ensuring it is not too loose or tight using the care plan.	To secure the tube. If using ties/tapes, place them in an accessible place, ensuring it will not cause discomfort to the Client.
24	Check the client is stable (and cuff pressure using the manometer if applicable).	Ensure client comfort.
25	Dispose of all waste appropriately.	Minimise the risk of infection.
26	Wash hands thoroughly using bactericidal soap and water or bactericidal alcohol hand rub and dry.	To minimise the risk of infection.
27	Document procedure in the Daily records confirming the date, time and batch number of the tube and check client again.	To maintain accurate records and provide a point of reference.
28	If using a fenestrated tube, place non-fenestrated spare inner cannula in emergency pack and clearly label tube.	To ensure availability in the case of an emergency.

Guided exchange using an airway exchange device:

	Action	Rationale
1-9.	**Actions 1 – 9 inclusive as above**	Set up remains the same.
10	Insert exchange device to length of tube.	To ensure patency.
11.	Deflate the cuff.	To aid removal.
12.	Remove old tube over exchange device.	To prepare for tube change.
13.	Insert new tube over exchange device.	To insert new tube.
14.	Check for airflow through tube.	To ensure patency.
15.	Remove exchange device.	To be able to place new tube.
16.	Inflate cuff using the manometer, where	To secure the tube in position.

	applicable.	
17.	**Follow actions as above from 18 onwards.**	Closure of procedure remains the same.

If unable to re-insert tube successfully or the client becomes compromised:

	Action	Rationale
1.	Attempt to reinsert same size tube.	To provide patency.
2	Reposition client's neck and attempt to reinsert same size tube.	To enable insertion.
3.	If this fails, attempt to insert smaller size tube.	To provide patent airway.
4	If this fails administer oxygen via the stoma or maintain client's airway and follow the emergency procedures in the client's care plan.	To provide patent airway.
5.	In business hours: inform the appropriate clinical lead or Clinical Case Manager. Out of hours: call the On-Call Team when it is clinically safe to do so.	To ensure there is appropriate escalation of the situation.

7. Associated Policies / SOPs

Policies

CLIN 02 Assisted Ventilation Policy
CLIN 06 Consent Policy
CLIN 08 Safeguarding (Children and Young Adults) Policy
CLIN 10 Allergy Prevention Policy
CLIN 14 Health Records Management Policy
CLIN 12 Safe Use of Medical Devices Policy
CLIN 19 Resuscitation Policy

SOPs

SOP VENT 01 Tracheostomy Dressing Change (Adult & Child)
SOP VENT 02 Tracheostomy Care General Guidelines
SOP VENT 03 Humidification of a Client's Tracheostomy
SOP VENT 04 Tracheal Suctioning (Adult & Child)
SOP VENT 05 Tracheostomy Tube Care (Adult)
SOP VENT 07 Tracheostomy Tube Change (Child)
SOP VENT 08 Administration of a Nebuliser through a Ventilator Circuit
SOP VENT 09 Assembling a Ventilator Circuit
SOP VENT 10 Cleaning the Ventilator Equipment
SOP VENT 11 Safe Management of a Ventilated Service User During Outings
SOP VENT 12 Safe Management of a Ventilated Service User During Power Cuts
SOP VENT 13 Safe use of Battery Packs
SOP VENT 14 Assisted Airway Maintenance and Cough (Adult)
SOP VENT 15 BiPAP
SOP VENT 16 Oral and Nasal Suctioning
SOP VENT 18 CPAP
SOP VENT 19 Mechanical Cough Assist
SOP VENT 20 Changing Tracheostomy Cotton Ties (Child)
SOP VENT 21 Changing Tracheostomy Velcro Tapes (Child)
SOP VENT 22 Phrenic Nerve Pacing

SOP VENT 23 Laryngectomy Care General Guidelines
SOP VENT 24 Emergency Tracheostomy Tube Change (Adult)
SOP VENT 25 Emergency Tracheostomy Tube Change (Child)
SOP VENT 26 Nasopharyngeal Airway Management (Adult & Child)
SOP VENT 27 Nebuliser Therapy

8. References

- The Royal Marsden Hospital Manual of Clinical Nursing Procedures, Tenth edition, Dougherty L & Lister S, 2009, Wiley-Blackwell
- http://www.tracheostomy.org.uk/storage/files/Cuff%20management.pdf

Appendix A: About Acacium Group

Acacium Group consists of a number of trading companies, each providing services within core niche areas of the health and social care industries. Therefore, as this document is a Group Policy, the Policy herein applies to all trading companies detailed below:

pulse Part of Acacium Group	Thornbury Nursing Services Part of Acacium Group
Thornbury Community Services Part of Acacium Group	Scottish Nursing Guild Part of Acacium Group