



Foundations of Critical Care Nursing Course

Tracheostomy Workbook

Key Reference: Dawson D (2014) Essential principles:tracheostomy care in the adult patient, *Nursing in Critical Care*, Vol 19, 2 p.63-72.

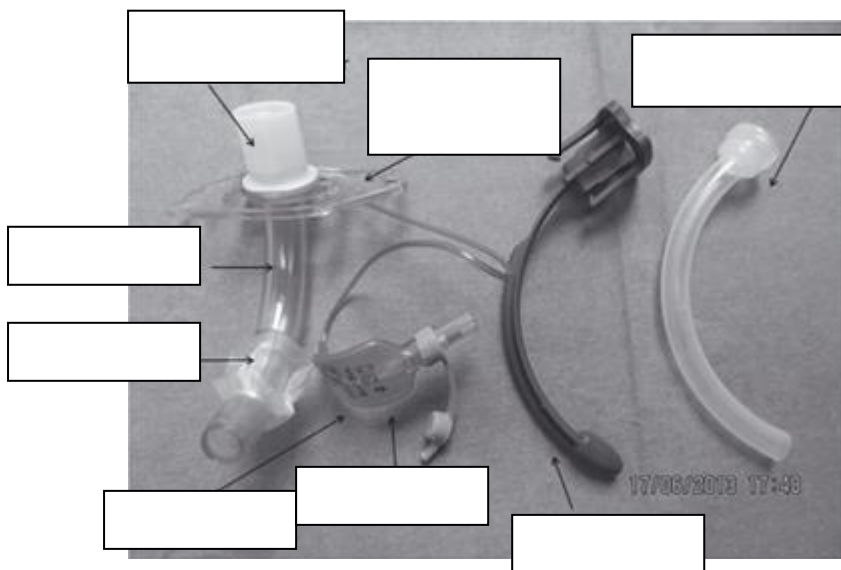
Define tracheostomy:

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Name the two different types of tracheostomy procedures:

- 1.
- 2.

Please label the different parts of the tracheostomy tube:



Please list the indications for tracheostomy:

- 1.....
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- 2.....
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- 3.....
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**Please list the complications associated with tracheostomy insertion:
(immediate and longer term complications):**

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Please describe the nurse's role when assisting in insertion of a tracheostomy tube: (please include monitoring requirements, patient checks, emergency equipment and documentation)

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There are different types of tracheostomy tubes.

- Cuffed or uncuffed
- Fenestrated or nonfenestrated. Fenestration means one or more holes (or windows – hence the name) has been created in the tube.
- Adjustable flange
- You may also see trachy tubes with an additional port – this is **NOT** a pilot balloon – it is a port for suctioning secretions which sit on the cuff. This is called a subglottic suction port.
- Some tubes – the 15mm connector is attached to the INNER CANNULA not the main shaft of the tube

Please label the following types of tube:



Please note the colour difference on the 15mm connector on tubes 3,4,5. The inner cannula with a white 15mm connector is non fenestrated (5), the green 15mm connector is on a fenestrated inner cannula (4).



Please note the colour of the inner cannula overleaf (no.8) is red. What is the colour of the **non fenestrated** inner cannula used with Portex tubes?.....

It is important to know whether the inner cannula is fenestrated or not.

*If a patient has a fenestrated tube- you must check the patient has a nonfenestrated inner cannula **before suctioning**.*

Why is this?

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Why might a fenestrated tube be inserted?

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Why might an uncuffed tube be inserted?

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What is the danger of having an uncuffed AND/OR fenestrated tube in a patient who requires positive pressure ventilation?

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Emergency equipment:

Please list the emergency equipment that needs to remain with the patient at all times, and briefly state why each item is required:

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- 2.....
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- 3.....
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- 12.....
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Emergency algorithms:

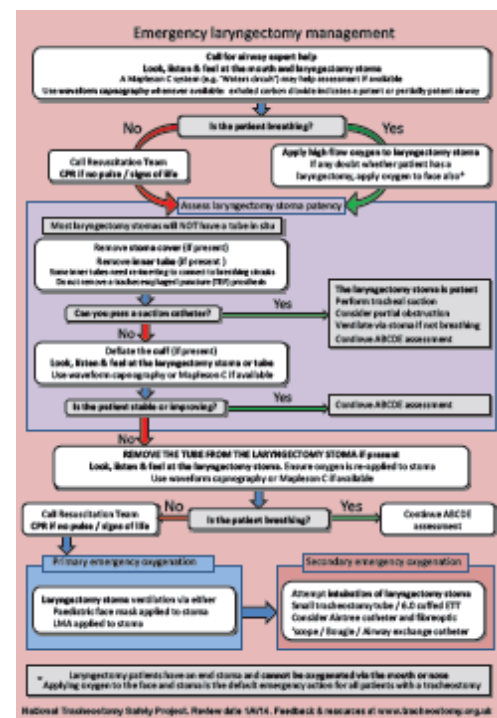
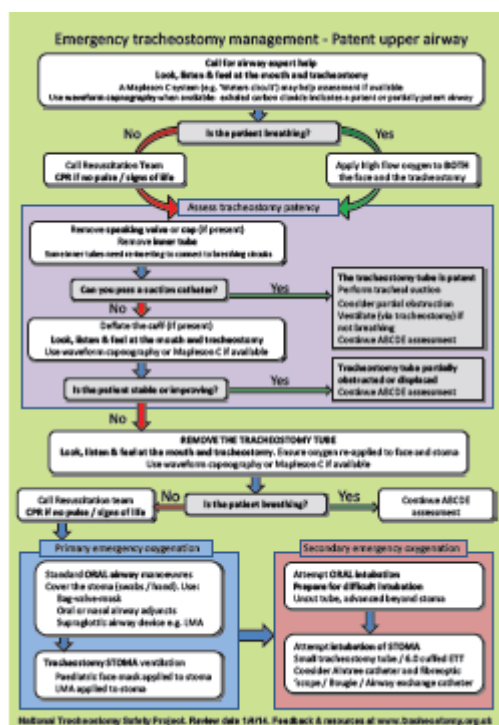
There are two different emergency algorithms.

You must know whether the patient has a **PATENT** upper airway
OR

The patient does **NOT** have a patent upper airway – for example those patients who have had a laryngectomy. **They have NO connection between their trachea and their upper airway.**

1. Patent upper airway:

2. Laryngectomy management:



Please familiarise yourself with the above algorithms and the tracheostomy documentation.

Please list the sections in the tracheostomy documentation:

- 1.
- 2.
- 3.
- 4.

The first section records the reason for tracheostomy and whether the upper airway is patent, date of insertion, details about the patient's tube, tube changes.

Why is this important?

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Cuff management:

What are the pressures that the cuff should be maintained between?

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How often should you measure cuff pressure?

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What is the risk associated with a cuff pressure that is too high?

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What is the risk associated with a cuff pressure that is too low?

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Inner Cannula care:

Patients in ICU may not have an inner cannula initially but **MUST** have one placed before they are discharged to the ward.

How often do you change the inner cannula for a *self ventilating* patient?

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Describe how you would clean and store an inner cannula:

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Suctioning:

What are the indications to suction a patient with a tracheostomy?

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How do you size a suction catheter?

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List the humidification devices that may be used with tracheostomy patients:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Explain the importance of adequate humidification for tracheostomy patients:

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Communication:

Explain why patients with a tracheostomy tube may find verbal communication difficult:

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Below are two different types of speaking valves:



Please explain when no. 1 (Rusch valve) would be used:

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Please explain when no.2 (Passy Muir) valve would be used:

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What **ESSENTIAL** step would you take **BEFORE** placing a **speaking valve OR decannulation cap** onto a tracheostomy tube on a patient with a patent upper airway?

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Weaning:

There are several steps that may be performed as the patient is working towards decannulation **IN A PATIENT WITH A PATENT UPPER AIRWAY**. The patient may take variable amounts of time to work through these steps and this process needs to be carefully managed and co-ordinated with the multidisciplinary team.

The patient may also require down sizing of their tracheostomy tube to progress through the stages.

1. **Cuff deflation.** Briefly describe how you would perform cuff deflation:

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2. **Gloved finger occlusion** (for a brief period of time for eg whilst the patient counts to three. Why do you perform gloved finger occlusion and why should you monitor the patient during this?

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3. **Speaking valve.** The patient must have tolerated gloved finger occlusion prior to placing a speaking valve **AND the cuff must be deflated.** Why is this?

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4. **Decannulation cap.** As above - the patient must have tolerated gloved finger occlusion prior to placing a decannulation cap **AND the cuff must be deflated. The cap completely occludes the trachy tube – therefore the patient must have airflow through their mouth and nose.**

What is the maximum time a decannulation cap is used for unless specifically stated and documented by the patient's team?.....

Following any episode of weaning you must update the patient's tracheostomy documentation.

Ward transfer:

Please state the information that you must handover to ward staff:

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What equipment must accompany the patient on all transfers/ discharge?

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