

# Discharging a Patient Home with a Tracheostomy

## Introduction

The majority of patients who require a tracheostomy during their treatment in hospital are decannulated prior to discharge home. However, there are occasions when the patient will continue to require their tracheostomy tube either as a long-term option or even permanently. As a result, tracheostomies are becoming increasingly common in the community setting.<sup>1</sup> The wide range of tracheostomy tubes and accessories available and the advances in specialist knowledge are contributing to the individual's living successfully at home as a neck breather.

It is important to clarify why an individual has a long-term tracheostomy as this will determine their management and care requirements. Examples will include:

- to deliver mechanical ventilation
- to bypass an upper airway obstruction (e.g. tumour or vocal cord palsy)
- to protect the airway from aspiration
- to access and remove chest secretions

Before the discharge process can begin, the medical stability of the individual must be established. The tracheostomy site should be healed and there should be no signs of infection.<sup>2</sup>

## The community team

The focus of the discharge planning will be effective communication between the hospital-based and community team. Early identification of a patient who will not be decannulated before discharge will be pivotal to the discharge process. Once this has been established, referral to the patient's general practitioner and community team will begin a complex process of events.

The community team should be encouraged to attend the ward to meet with the staff and patient. This will provide the opportunity to discuss the patient's clinical condition and care needs. The community nurses will provide the patient and their family with support and guidance in the routine management of the tube and first line management in the event of a critical incident.<sup>3</sup> This will include basic life support with a tracheostomy.

However, these are not skills commonly acquired during nurse training<sup>4</sup> and the community nurse's experience may vary enormously within the team. It will be important that they are adequately prepared in order to fulfil this role.<sup>5</sup> The hospital based staff must support this need with training and information. The following considerations should be presented to the community team:

## Why has the patient got a tracheostomy?

If the tracheostomy is providing a primary airway (there is compromised airflow above the level of the tube) this will have considerations for the community team. If the tube were to block with secretions or accidentally fall out, the priority will be to reinsert another tube without delay. The tracheostomy tube should be double lumen with a removable inner cannula. Should the tube block with secretions, the cannula can be removed, cleaned and reinserted therefore promoting tube patency and avoiding the need for an emergency tube change (Figure 1).

A cuffed tracheostomy tube will be required to provide protection from aspiration for the patient with swallowing difficulties. In this situation, the cuff should be checked regularly using a cuff pressure manometer to ensure it is inflated correctly (Figure 2).

## Who will be caring for the tracheostomy?

To care for a tracheostomy at home requires advanced technical skills.<sup>4</sup> Ideally, the individual will be able to carry out their own care, providing them with a sense of self-control and reducing the dependency on others.<sup>6</sup> An education programme<sup>7</sup> to include suctioning, humidification, wound care and inner cannula care should be provided. These practical aspects require physical ability and dexterity to perform competently. The individual should be able to identify and manage complications and apply their knowledge and skills to the changing needs of their tracheostomy. They should be motivated to carry out their care consistently and reliably. Any cognitive impairment or anticipated decline should cause the healthcare team concern as to the individual's suitability to self-care. In this instance a



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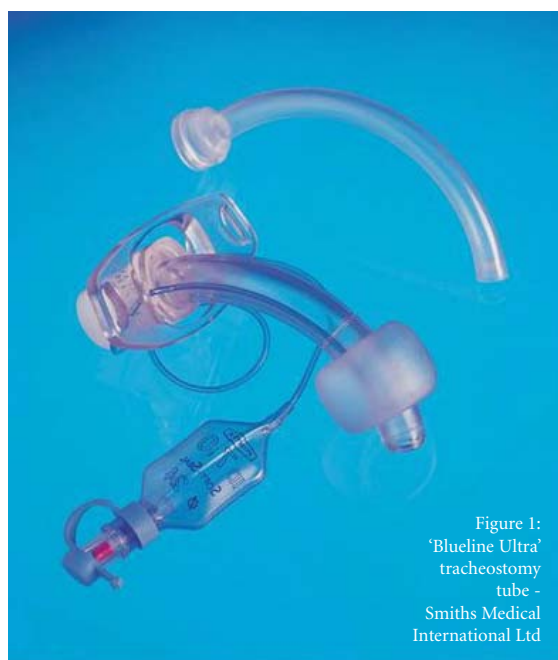


Figure 1:  
'BlueLine Ultra'  
tracheostomy  
tube -  
Smiths Medical  
International Ltd

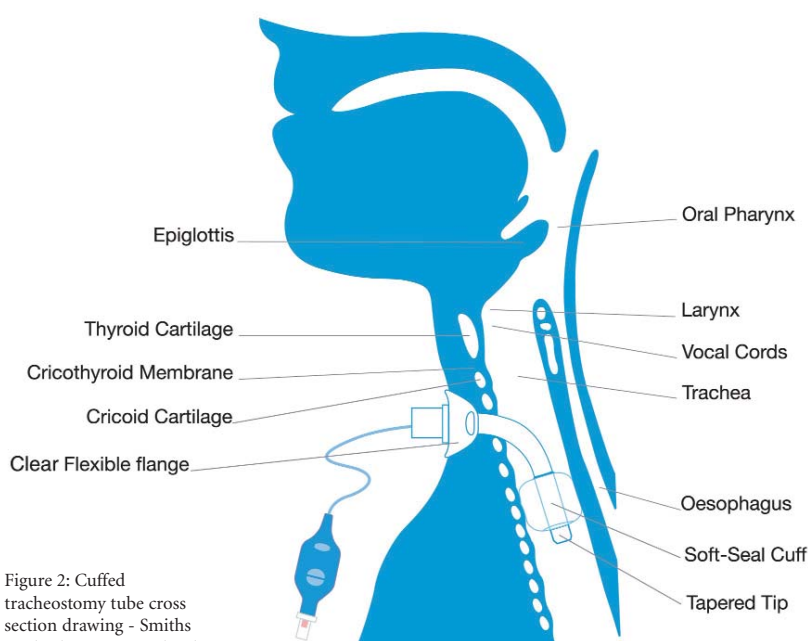


Figure 2: Cuffed  
tracheostomy tube cross  
section drawing - Smiths  
Medical International Ltd.

'key carer' should be identified to provide the tracheostomy care. However, the healthcare team should not assume that this is a role a family member is willing or indeed capable of undertaking. A tracheostomy can cause a substantial amount of caregiver strain and this should be considered when deciding on a treatment plan.<sup>8</sup> Caregivers will be required to learn skills to apply to the care of the tracheostomy which can be daunting and overwhelming. Depending on the level of supervision the individual requires, the family member may become exhausted. Stressors the carer may experience will include knowledge deficit, worry over the individual's health, level of responsibility and restricted social activities.<sup>9</sup> The healthcare team should consider these issues and discuss the possibility of respite services to prevent the carer becoming unable to cope.

**What equipment and supplies are required?**

The care of a tracheostomy demands specialised equipment and supplies to maintain a safe and functioning airway. A portable suction unit and nebulizer must be issued to the patient before discharge. The patient who does not require regular suction or nebulizers should be equipped in the event of deterioration in their clinical condition (e.g. increased secretion production as a result of a cold).

Disposable supplies of tracheostomy products will be required. This will include tracheostomy tubes, dressings, Velcro collars and heat moisture exchangers (HME). The community team will require details of items to order in preparation for the discharge. The equipment and supplies will be extensive and costly for the community team to purchase. It is recommended that the discharging ward provide at least one week of supplies for the patient to take home with them. This will overcome any delays experienced with the ordering process and ensure a smooth transition from the hospital to home setting.

**Continuing Care**

The community team should be advised as to the ongoing management plan for the patient to include further treatment and review of the tracheostomy. They should be made aware of the patient's prognosis or any predicted deterioration in their health.

As discussed, the indication for a long-term or permanent tracheostomy will vary between individuals. It will be important to continue to monitor the patient as to the suitability of their tube type when considering their changing clinical needs and indeed whether they still require their tracheostomy.

Contact telephone numbers should be provided to include district nurse, access to ENT medical team, ENT Ward and tracheostomy nurse (if available). This will provide the patient with support and a treatment plan in the event of a difficulty arising with their tracheostomy.

Tracheostomy tubes need to be changed according to the manufactures guidelines. This can vary between monthly (double

lumen PVC tubes) or long term tube materials (silicone, silver). The ongoing management of this should be established prior to discharge. Each individual will require an assessment to determine the most appropriate setting for their tube to be changed. Firstly their clinical conditions should be considered. A large tumour distorting the trachea may cause difficulty with a tube change. Excess secretions and a high aspiration risk may complicate the procedure. Previous tube changes should be examined. Has there been difficulty either removing or inserting a tube? This can be caused as a result of hypergranulation of the stoma edges or the tract itself.<sup>10</sup> If there is an anticipated complication or difficulty associated with the tube change, the procedure should be performed in the hospital setting. This will ensure access to experienced practitioners and facilities in the event of a difficulty arising.

**Living with a tracheostomy**

The tracheostomy may affect lifestyle in terms of activities and choices, but it is possible to successfully adapt without unnecessary restrictions.

The patient and their carers should receive clear guidance on living with a tracheostomy. This will include adapting their skills to the community setting and being aware of hazards in the environment which will be detrimental to their wellbeing. The patient will be vulnerable if exposed to risks such as water entering the tracheostomy tube and toxic substances including aerosols, smoke, or fine animal hair causing airway damage or infection.

The individual or carer should have access to emergency tracheostomy equipment (suction unit with tubing and catheters and portable nebulizer) and supplies at all times. This will ensure there is no delay in delivering the tracheostomy care in any environment or situation. It is recommended that a tracheostomy bag or case (Figure 3) containing such items should be available to include:

<i>Spare tracheostomy tube of current size</i>
<i>Spare tracheostomy tube one size smaller (in event of being unable to insert tube)</i>
<i>Spare inner cannulas</i>
<i>Precut tracheostomy dressing</i>
<i>Velcro collar or tracheostomy tapes</i>
<i>Heat moisture exchange (Swedish Nose, Buchanan Bib)</i>
<i>Syringe (if tracheostomy tube is cuffed)</i>
<i>Cuff pressure manometer (if tracheostomy tube is cuffed)</i>
<i>Lubricating jelly</i>



Figure 3: Kapitex Healthcare Ltd 'Trachi-Case'.

**Conclusion**

The discharge of a patient with a tracheostomy is clearly a complex and multifaceted process. The healthcare team are presented with issues unique to a neck breather and the management of this will be instrumental in determining the success of the discharge, the health of the individual and ultimately avoid readmission to hospital.

**References**

- Serra A. *Tracheostomy Care*. 2000. Nursing Standard. Vol 14;45-55.
- Diel BC, Dorsey LK, Koller CLS. *Transitioning the client with a tracheostomy from acute care to alternative settings*. 2000. *Tracheostomy and Ventilator Dependency: Management of Breathing, Speaking and Swallowing*. Ed Tippett DC. Thieme Medical Publishers; Inc; New York. 237-248.
- Scase C. *Long-term tracheostomy and continuing care*. 2004. *Tracheostomy: A Multiprofessional Handbook*. Ed Russell C Matta B. Greenwich Medical Media Ltd: London. 285-307.
- Schreiber D. *Trach care at home*. 2001. RN. Vol 64, 43-47.
- Bunglass E. *Tracheostomy Care: tracheal suctioning and humidification*. 1999. *British Journal of Nursing*. Vol 8, 500-504.
- Dixon LR. *Tracheostomy: easing the transition from hospital to home*. Perspectives: Recovery Strategies from the OR to home. www.perspectivesinnursing.org
- Driscoll A. *Managing post-discharge care at home*. 2000. *Journal of Advanced Nursing*. Vol 31, 1165-1173.
- Ferrario SR. *Caregiver strain associated with tracheostomy in chronic respiratory failure*. 2001. *Chest*. Vol 119, 1498-1502.
- Krouse HJ, Rudy SF, Vallerand AH. *Impact of tracheostomy or laryngectomy on spousal and caregiver relationships*. 2004. *ORL – Head and Neck Nursing*. Vol 22, 10-24.
- Yaremchuk K. *Regular tracheostomy tube changes to prevent formation of granulation tissue*. 2003. *Laryngoscope*. Vol 113, 1-10.