

East of England **Community Tracheostomy Guidelines for Adults**

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Incorporates the Training and Assessment Framework
and Resources for Healthcare and Community Providers





Hello, I am Connie the Community Tracheostomy Caterpillar and I am here to assist you through these guidelines and resources!

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Resources

- Transfer / Discharge checklist for a patient with a tracheostomy
- Standard tracheostomy equipment and consumables
- Tracheostomy care and observation chart
- Community tracheostomy daily care guidelines
- 'Living with a tracheostomy' – Patient and carer tracheostomy information leaflet
- 'Community Tracheostomy Care' video

Disclaimer

Whilst this information has been collected and designed to help in the clinical management of the patient living with a tracheostomy in the community, the authors do not accept any responsibility for any harm, loss or damage arising from actions or decisions based on the information contained within this publication. Ultimate responsibility for the treatment of patients and interpretation of these materials lies with the medical practitioner/user.

The opinions expressed are those of the authors. The inclusion in this publication of material relating to a particular product or method does not amount to an endorsement of its value, quality, or the claims made by its manufacturer.

These guidelines should not constitute a minimum standard of practice nor should they be regarded as a substitute for good clinical judgment.

East of England Trauma Tracheostomy Working Group

Improving the safety and quality of care for patients with a tracheostomy has been the driving force behind the development of the National Tracheostomy Safety Project (NTSP) which published the first multidisciplinary emergency management guidelines in 2012 (McGrath et al, 2012). The vulnerability of this patient group was also highlighted in the National Confidential Enquiry into Patient Outcome and Death of 2014 (NCEPOD, 2014) which outlined areas where patient care could be improved and identified remediable factors in both clinical and organisational care. Both the work of the NTSP and the output of the NCEPOD have focused on the patient whilst still in the acute care setting, and whilst instrumental in driving up standards of care in this setting, there remains a lack of guidance specific to patients living with a long term tracheostomy in the community where support structures are entirely different and often poorly defined.

With the successful introduction of the Trauma Networks in England and Wales in 2012, survival rates have improved (TARN odds ratio of survival England, published 2015). In addition, as treatments improve, a proportion of patients who have respiratory disease, spinal cord injury, neuromuscular disorders, cancers of the upper airway or ENT benign disorders (vocal cord palsy) are also now living with the need for a long term tracheostomy. These patients may be requiring support in a range of community settings such as community hospitals, (specialist) nursing homes or in their own homes but the availability is limited and quality is variable.

In the East of England (EoE) this issue has been apparent and causing concern for some time. The demand for good tracheostomy care in a variety of settings is therefore increasing, but the supply is limited. This inevitably results in a backlog in the clinical pathway whilst people with these needs are waiting for suitable provision to be sourced, resulting in some patients remaining in acute beds for prolonged periods.

As a result, the East of England Trauma Network (EoETN) organised a Tracheostomy Clinical Summit in November 2014 to share and discuss the issues surrounding these patients and their associated patient pathway. The Summit included commissioners, community providers, acute trusts and patient representatives from the EoE. It was decided that compiling an EoE set of guidelines aimed at the community aspect of tracheostomy care would be the most beneficial way to set the standard for tracheostomy care in the EoE. Working in collaboration with the East of England Critical Care Network (EoECCN) we brought together expertise to try and address the pathway concerns, from acute through to community settings. In contemplating community provision, it became apparent that in order to encourage the development of high quality services for this patient group, we needed to define the standards of care that would be required of providers. This would provide safety and quality assurance and enable these patients to be managed in a safe environment. This would also assist with the commissioning process when identifying the right care provider to meet the patient needs.

A review of the literature in this area confirmed that there was very limited guidance already available for tracheostomy care in the community, so it was decided that in the absence of such guidance an attempt should be made to fill the void for use within the EoE. A core Working Group was formed with the following objectives aimed at commissioners, service providers, patients and their families/carers.

Project objectives

For commissioners and service providers:

- to improve the quality, safety and emergency clinical care of the patient with a tracheostomy outside of an acute setting through standard-setting in training
- to provide accessible specialist training specific to community setting
- to reduce the number of near misses and clinical incidents and to consequently reduce the need for acute care interventions
- aim to reduce length of stay in the acute setting
- to clarify the equipment and consumables required to safely discharge a patient with a tracheostomy to facilitate the transfer process and reduce delays
- improve patient flow
- to thereby improve confidence and encourage service provision for the patient with a tracheostomy in the community.

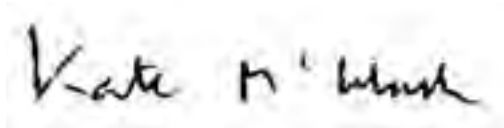
For patients with a tracheostomy and their families:

- to share information, from a patient perspective of living with a tracheostomy in a community setting
- to improve overall patient experience and sense of reassurance.
- to enhance the accessibility to healthcare and support following discharge from acute care.

On the basis of these objectives, it was agreed that the guidelines should comprise of four main facets:

1. Written guidelines encompassing the background to community tracheostomy care, planning and preparation for community transition and post transfer care.
2. Clinical skills training for staff in the community – Tracheostomy Skills Training (TST) aimed at both qualified and unqualified healthcare and community providers.
3. A tracheostomy emergency card for patients living in the community and for them to use in managing emergencies.
4. A supporting video to include information on daily care in a home setting and a patient-interview discussing aspects of living in the community as a 'person' with a tracheostomy.

Thus the overall aim of this working group was to improve the standards of care, competence and confidence in delivering clinical support to patients with a tracheostomy through enhancing the knowledge and skills of clinicians and carers. For patients, rather than being defined and confined by their tracheostomy, we hope by delivering these guidelines this will enhance their quality of life, and make living with a tracheostomy a more positive experience for both them and their families.



Dr Kate McGlashan

EoE Trauma Network Rehabilitation Director and
Chair of the EoE Tracheostomy Working Group

Tracheostomy is one of the oldest, one of the simplest and one of the most valuable operations in surgical practice. From its first recorded use in the second century by Asclepiades as a means of relieving upper airway obstruction, expansion of its use for other reasons would have to wait until 1943 when Galloway used a tracheostomy to facilitate removal of airway secretions. The next breakthrough came in the 1950s in the height of the polio epidemic when the use of a tracheostomy for ventilation was pioneered in Scandinavia (Borman and Davidson, 1963).

Since this time the use of the tracheostomy has become common place in clinical practice. As with any similar advance in medicine, the more lives that are saved by an acute intervention, the more people will live with the consequences of the intervention and for some, this means living long term with a tracheostomy. The actual numbers of community dwellers with a long term tracheostomy in the UK is unknown, but the numbers are increasing due to further advancements in acute care, whether it is in the pre-hospital phase, in the critical care phase or in the stabilisation phase. The vast majority of tracheostomy patients are decannulated before leaving hospital, however a small but important minority, for various reasons, are not able to manage without their tracheostomy and hence not only live because of it, but have to learn to live with it.

In recent years, a greater focus has been on the safe management of patients with a tracheostomy within the acute environment, as these patients are vulnerable to acute airway obstruction if standards of care are not maintained. The community patient is just as vulnerable to this complication as the acute patient, but there are some differences in approach in the community setting to the overall care of the patient with a tracheostomy as well as issues associated to the geographical placement of patients outside the security of a hospital with its skilled practitioners and governing policies and procedures. The particular needs of the community patient have not so far been examined, and it is hoped that this document goes in some way to addressing this. Safety must be at the heart of all discharges to the community and it was with this in mind that the East of England Tracheostomy Working Group was formed in 2014. These guidelines are the output from this group and it is hoped that the information supplied will lead to better community care of patients with a tracheostomy.

Population

These guidelines are confined to the adult patient (age >18) with a tracheostomy transferring out of the acute sector into the community setting. People with a laryngectomy (permanent neck breather) and children/young people under the age of 18 are not specifically included in this version of community guidelines, but will be considered in later versions. Issues pertaining to ventilation are also not covered in this document but many of the considerations raised in this first document will be pertinent to these patient groups.

Patient group

There are a number of reasons why a person might ultimately be living in the community with a long term tracheostomy; usually following a protracted hospital stay:

- to bypass an upper airway obstruction, e.g. tumour or vocal cord palsy
- to provide a means to support long term mechanical ventilation
- to provide access to chest secretions through suctioning in the absence of adequate cough/ability to clear secretions
- to protect the airway from aspiration of secretions and food/fluids when swallow is impaired, e.g. after a neurological illness.

This list encompasses a wide range of people, including cognitively intact, ambulant people, to people with profound brain injury who are unable to protect their own airway, and their overall care needs might be quite different, but the standards for management of their tracheostomy care will be very similar.

EoE Community Tracheostomy Working Group

Objectives of the Working Group

It was agreed that the guidelines should be made up of four main facets:

1. Written guidelines encompassing the background to community tracheostomy care, planning and preparation for community transition and post transfer care.
2. Build a team of specialist trainers to develop tracheostomy training skills and to deliver Tracheostomy Skills Training (TST) specifically for community carer groups both qualified and unqualified.
3. A tracheostomy emergency card for patients living in the community and for them to use in managing emergencies. (This is still in development.)
4. A supporting video to include information on daily care in a home setting and a patient-interview discussing aspects of living in the community as a 'person' with a tracheostomy.

The Core Working Group

The names of the core Working Group members who have been consistent/major contributors are listed below:

Karen Cotton	Innovation and Nursing Lead, East of England Critical Care Operational Delivery Network
Erica Everitt	Tracheostomy Nurse Practitioner, Norfolk and Norwich University Hospital NHS Foundation Trust (NNUH)
Sara Fairall	Specialist SaLT, Colman Centre for Specialist Rehabilitation Services (CCSRS)
Jeff Jolliffe	Clinical Trainer and Training & Development Manager, Amegreen Complex Homecare Ltd
Maxine Kehoe	Sister, Critical Care, Queen Elizabeth Hospital NHS Trust (QEH)
Assiah Mahmood	Network Manager, East of England Trauma Network
Kate McGlashan	Clinical Director for Trauma Rehabilitation, East of England Trauma Network and Consultant in Rehabilitation Medicine, CCSRS
John Raby	Referrals Co-ordinator, CCSRS
Claudia Russell	Tracheostomy Nurse Consultant at CUH, Course Leader for EoE Trauma Network Tracheostomy Skills Training (TST)
Claire Scase	Tracheostomy Clinical Nurse Specialist, Cambridge University Hospitals NHS Foundation Trust (CUH)
Helen Young	Trauma Rehabilitation Co-ordinator, East of England Trauma Network (EoETN)

Special thanks to the following for their on-going administrative support, clinical input and oversight:

Kitti Czeglédi	Administrator, East of England Trauma Network
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Additional clinical input and support to the Working Group at various times over the course of the three years was given by:

Karen Bending	Physiotherapy Team Lead for Surgery and Women's Health, Respiratory lead Intensive Care Unit and Medicine, QEH
Louise Constable	Specialist Physiotherapist, CCSRS
Sarah Cullum	Respiratory Physiotherapist, QEH
Alex Donnelly	Rehabilitation Nurse, CCSRS
Helen Downing	Specialist Speech and Language Therapist, NNUH
Moheb Gaid	Consultant in Rehabilitation Medicine, CCSRS
Claire Jones	Education Sister, Papworth Hospital
Kate Lee	Clinical Specialist Physiotherapist, CCSRS
Rachel Lee	Senior Dietician (community), NNUH
Amanda Ludlow	Director of Amegreen Complex Homecare Ltd
Karen MacGinley-Kerr	Tracheostomy Clinical Nurse Specialist, Cambridge University Hospitals NHS Foundation Trust (CUH)
Marie McDermott	Clinical Quality and Patient Safety Manager, North Norfolk Clinical Commissioning Group
Kate Richardson	Specialist SaLT, NNUH
Lisa Robson	Advanced Specialist SaLT, Cambridge University Hospitals NHS Foundation Trust (CUH)
Mike	Tracheostomy patient living in the community interviewed for the video
Drew Simpkin	Lead Tracheostomy Nurse, CCSRS
Rachel Sutton	Specialist Physiotherapist, CCSRS
Emma Whattam	Tracheostomy Clinical Nurse Specialist, Cambridge University Hospitals NHS Trust (CUH)
Dorothy Wilson	Specialist SALT, CCSRS

Working Group meetings

These took place quarterly at the Colman Centre for Specialist Rehabilitation Services in Norwich starting in April 2015.

Declarations of interest

Nil declared from any member of the Working Group.

Target audience for the output of the Working Group

It is hoped that the following groups will find these guidelines and associated outputs of interest:

- people with a tracheostomy living in the community and their families
- community-based provider organisations that look after people with tracheostomies
- commissioners of these services
- GP and community nurses
- acute care providers (so as to understand standards of care expected in the community and to facilitate safe transfers)
- tracheostomy care trainers
- nurse agencies / carers.

Evidence base

In order to scope any pre-existing guidance in this area, a literature search was undertaken to inform the work of the group in its aim to produce useful guidance on transitioning patients with a tracheostomy safely from the acute sector into the community setting.

Search Time Frame

A literature search was carried out between 17 to 23 February 2015.

Databases

Primary databases used for the search included Medline, CINAHL, Cochrane Database, NHS Evidence.

This primary search was strengthened using a hand search, and follow-up of references cited from included studies. Furthermore, pre-existing National clinical guidelines were searched.

Time-Period

Studies and guidelines in English from 2005–2015 were considered for inclusion.

Search Keywords

A combination of the following keywords were used to search for relevant literature:

tracheostomy, community, discharge, management, care home.

Caveats

As the planned guidelines were aimed at adults, studies involving adults were preferred for the literature search but paediatric studies containing pertinent information for adult tracheostomy patients were also included.

Community based studies and guidelines were favoured for this literature search, but due to the required partnership between acute care services and community-based services, studies based in acute settings that were pertinent to the discharge process were also included.

Strengths and limitations of evidence

The literature base for community tracheostomy care was found to be extremely thin with only two main articles being of direct relevance: (Bowers & Scase 2007; Fewings 2012). The clear clinical need for the development of some consensus guidance in the absence of pre-existing literature was agreed.

Formulation of recommendations

Guidelines on emergency tracheostomy management in the community have been based on the guidelines developed by the UK National Tracheostomy Safety Project (NTSP, www.tracheostomy.org.uk). These national guidelines have been extensively peer reviewed by various processes and endorsed by multiple relevant national organisations. A multi-disciplinary NTSP editorial board has also made revisions to the manual.

The development of a team of skills trainers across the region created the Tracheostomy Skills Training (TST) learning outcomes, training programme, skills assessment of essential and emergency skills. These have largely been aimed at the acute care providers however fed into the development of the community TST.

The Patient and Carer information leaflet has been based on a pre-existing Cambridge University Hospitals (CUH) leaflet, the author of which was a member of the working group. The original leaflet was approved by the CUH Readers Panel Group, however the leaflet was adapted for regional and re-submitted to this group for approval.

The guideline document has been written de-novo and incorporates references as appropriate.

The video content was agreed prior to filming and was reviewed before the final edit by the core working group. The final draft version was also reviewed by the patient and public representative who also featured in the video.

Benefits and harms

The goal of drawing up and implementing this guidance is to promote safety and quality and to raise the standards of care across the EoE for people living with a tracheostomy. The potential risk is that the training and competency demands are seen as too onerous and that providers currently offering care to these patients withdraw care service to patients with a tracheostomy as a result, either causing delays whilst staff teams are trained up or delays due to withdrawal of service. Acknowledging this risk may in itself go some way to mitigating it as understanding the demands this patient group can place on providers is important. Close working with commissioners to ensure that these patients are funded at a level commensurate with their complexity is essential to make the patient pathway work. Funding constraints within the NHS are a concern, but if a provider organisation decides to offer a tracheostomy service

then there are economies of scale to be gained in terms of optimum tracheostomy bed numbers to offset the ongoing training demands.

Another caution with any set of guidelines is to ensure that patient care is not made so standardised that it is at the expense of individual patient variation. Elements of care, such as emergency management, by their very nature need to be clear and precise, but the need to interpret guidelines to accommodate individual patient need is to be anticipated.

The benefits of producing these guidelines jointly under the banner of the EoETN and the EoECCN, under the auspices of the Operational Delivery Network, meant that they have a level of NHS backing that will help in the implementation. Upon implementation of the guidelines, we plan to review them on an annual basis through a patient and carer user group set-up through the Tracheostomy Working Group.

Link between recommendations and guidance

As indicated, the evidence base for community-specific guidelines is very limited. All emergency algorithms are based on national guidance and modified to suit the community setting and a reference list is available in the appendices.

Review Panel

Review of the training competency documents was requested when in draft final format. The Emergency Card was scrutinised at an earlier stage as it went through many revisions with changes based on a wide-range of feedback. The video was reviewed before the final edit stage and the Guidelines document when in final draft format. The external reviewers' roles are listed below and their input was gratefully received.

Feedback was requested from all the reviewers on the overall purpose, target audience and whether these were fit for purpose.

Element of Guideline	Reviewer
Emergency card	Clinical Director, East of England Critical Care Network
	Lead Nurse, East of England Critical Care Network
	East of England Trauma Unit Clinical Leads
	East of England Ambulance Service Clinical Lead
	Cambridge University Hospitals NHF FT Readers Panel Group
Tracheostomy Skills Training (TST)	Tracheostomy Nurse Consultant, Cambridge University Hospitals NHS Trust (CUH)
The Community Tracheostomy Guidelines for Adults	Tracheostomy Nurse Consultant, Cambridge University Hospitals NHS Trust (CUH)

Updating, monitoring and audit

It is anticipated that the Emergency Card, competencies and Guidelines will need revising and updating over time. The Working Group will continue to meet to review progress, clinical issues and to continue develop various elements of the tracheostomy care pathway that remain fledgling at the time of publication of this first version of the Guidelines.

Facilitators and barriers to application of the Guidelines

The concept of the Emergency Card and TST were launched at a specialist nursing home summit organised by the EoE Trauma Network in November 2016 aimed at managers and clinicians from Specialist Nursing Homes around the region. The delegates included representation from Commissioning organisations. Promotion of the Guidelines will be undertaken both within the Trauma Network and Critical Care Network when interfacing with relevant groups. Day to day contact with representatives from Specialist Nursing Homes will also be used as a vehicle for promotion.

One of the likely barriers to application will be the need for training and maintenance of competencies and this is currently being introduced. The TST sessions are being made available and delivered by specialist skill trainers from the Working Group.

Implementation advice and tools

The appendix and resources section of the Guidelines document contains checklists and the guidelines. The guidelines are available in PDF format to aid dissemination, and have been made available on the EoETN website.

Resource implications

The following implications are likely:

- cost of the training sessions: EoETN via education fund
- cost of production of competency documents: provider organisations
- cost of production of batches of Emergency cards: EoETN
- cost of supplying correct equipment to maintain safety (an increase in the number of suction machines issued is to be expected): NHS, likely continuing healthcare
- a proxy impact measure will be the flow of patients with a tracheostomy through the pathway and the timely availability of tracheostomy provision in the community setting. This could have a positive impact on resources as the patient would be managed at the right time and in the right place.

These Guidelines can be downloaded from the EoETN website – www.eotraumanetwork.nhs.uk



Monitoring/auditing criteria

This will be managed in a number of ways including:

- a formal audit of delays to patient flow within the Trauma pathway (including non-trauma patients)
- a database of specialist nursing homes (SNH) and other staff members trained and signed off in provider units
- Patient and Carer User Group set-up via the Tracheostomy Working Group.
- the number of 'hits' on video websites (EoETN website, YouTube, Vimeo)
- general feedback to tracheostomy working group
- evaluation of tracheostomy skills training
- an audit of tracheostomy related incidents and remedial actions with outcomes.

Funding body declarations

Funding for the production of the Emergency card and the video was through the Operational Delivery Network. The SNH launch day was also funded via the EoETN. No private/independent funding was used.

Competing interests

All members of the Working Group were canvassed for competing interests and none were declared.

Abbreviations

A list of abbreviations used in this document is available in [Appendix 1](#).

Well-established, national clinical guidelines for tracheostomy care and management aimed mainly at patients in the acute sector are already available published by The National Tracheostomy Safety Project at www.tracheostomy.org.uk and are referenced during the document. This website is recommended to the reader as an excellent resource regarding tracheostomy management which includes e-learning material and training videos.



www.tracheostomy.org.uk – please see for resources on tracheostomy management.

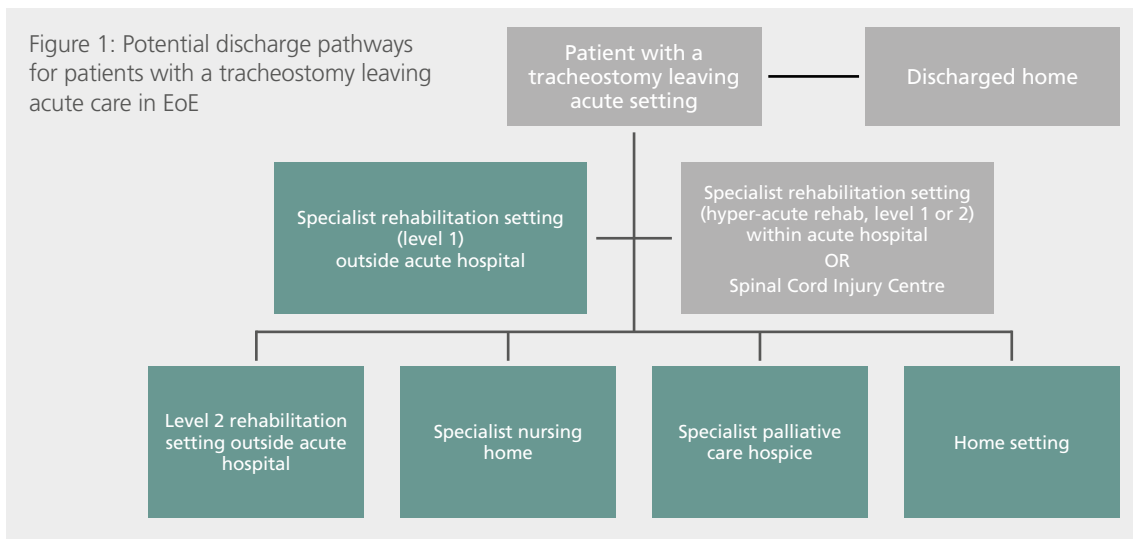
Section 2 • Defining community

What is meant by the 'community tracheostomy pathway'?

This is essentially the range of settings in which a person with a tracheostomy may have their care supported beyond the acute setting.

The extent of their care needs will vary, from distant support for the person who self-manages their tracheostomy to the person that requires help for all their needs, including tracheostomy management. Some people will be discharged to their home and some will go straight to long term care or hospice environments and others will pass through a phase of rehabilitation.

There is as yet no clear data identifying the numbers of patients passing through the pathway from acute services through to the community setting. It is our aim that a new database will be piloted within the East of England Trauma Network Office, which will enable better tracking of patients with a tracheostomy in the future, but currently data is poor. What has recently been collected is the number of patients leaving the Critical Care setting in the East of England with a tracheostomy in place. Over a one year period from April 2015 to March 2016 in the EoE Critical Care Network, 270 patients with a tracheostomy were transferred out of Critical Care to a general hospital ward. The vast majority of these patients will have been weaned and de-cannulated before moving on from the acute setting, but there is no actual data to support this theory. It can be stated with confidence is that the numbers are on the increase.



For definitions of Level 1 and 2 services and clarification regarding patient complexity please see [Appendix 2](#) (Specialised Neurorehabilitation Service Standards, 2015).

The acute setting in the EoE consists of:

1. – The Major Trauma Centre (MTC) at Cambridge University Hospitals NHS Foundation Trust
- The associated 12 Trauma Units: Bedford Hospital NHS Trust; Broomfield Hospital (Mid Essex Hospital Services NHS Trust); Colchester Hospital University NHS Foundation Trust; James Paget University Hospitals NHS Foundation Trust; Lister Hospital (East and North Hertfordshire NHS Trust); Luton and Dunstable Hospital NHS Foundation Trust; Norfolk and Norwich University Hospitals NHS Foundation Trust; North West Anglia NHS

April 2015 to March 2016 in the EoE Critical Care Network, 270 patients with a tracheostomy were transferred out of Critical Care to a general hospital ward.



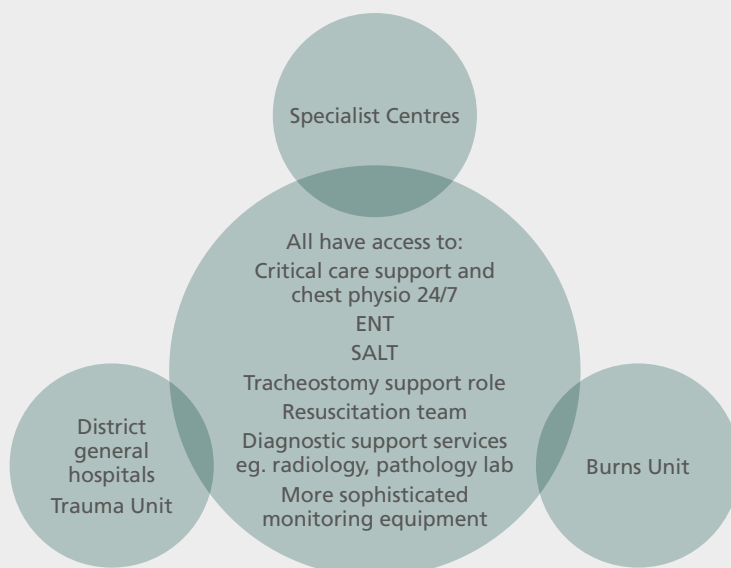
Foundation Trust (Peterborough City Hospital); Princess Alexandra Hospital NHS Trust (Harlow); The Ipswich Hospital NHS Trust; The Queen Elizabeth Hospital King's Lynn NHS Foundation Trust; West Suffolk Hospital NHS Foundation Trust

- One Local Emergency Hospital at Hinchingsbrooke Hospital (North West Anglia NHS Foundation Trust).
2. The EoECCN which supports all of the Critical Care Services within the 17 hospital Trusts in the region which encompasses:
 - Specialist Critical Care Centres: Neurosciences/MTC/Liver (Cambridge University Hospitals NHS Foundation Trust), Cardio Thoracic Centres (Papworth Hospital NHS Foundation Trust and Basildon & Thurrock University Hospitals NHS Foundation Trust)
 - 17 District General Critical Care Units.
 3. St Andrews Centre for Plastic surgery and Burns at Mid Essex Hospital Services NHS Trust should be noted as a source of regional long-term tracheostomy patients but comes under the remit of the London and South East England Burns Network.

All these units have access to 24 hour medical, surgical and anaesthetic support (including ENT), with a resuscitation team for life threatening emergencies. There is also some form of 24 hour critical care outreach support or medical emergency team to support the nursing staff, and on call chest physiotherapy. During the day (Monday–Friday daytime specialist nurse (includes general ENT, head and neck specialists, dietitians, and speech and language therapists should be available to offer specialist advice.

Even with all this support available, things can go wrong for the patient with a tracheostomy as the National Confidential Enquiry into Patient Outcome and Death publication '*On the Right Trach*' has highlighted (NCEPOD, 2014).

Figure 2. Support available for patients with tracheostomies in specialist centres (Major Trauma Centres, Cardiothoracic Centres and Neurosciences Centres) or regional acute hospitals.



It is inherent in the nature of the community setting that easy access to the full range of specialist support is diminished, and the vulnerability of the patient may increase considerably if appropriate planning, training and suitable skilled care are not made available.

Figure 3: Decreasing support with increasing vulnerability in community tracheostomy pathway



It should be made clear that risks to these patients are rarely addressed but are evident and real in the community setting.

It is important to highlight the increased vulnerability of a community patient with a tracheostomy can be offset by good planning and communication.

Section 3 • Commissioning community tracheostomy care

The post-acute setting needs of the patient will depend both on their tracheostomy needs and their broader rehabilitation and care needs. As described in the Section 1, people may require long term tracheostomies for multiple reasons and will range from those who are able to self-care to those who are dependent on skilled others for all elements of their care. The prognosis of the patient, commensurate with their medical condition, will also influence decision-making, but effective and timely tracheostomy care is essential whatever the expectations regarding longevity.

A description of the various pathways are as follows:

The Rehabilitation Pathway

The various levels of rehabilitation provision and patient categorisation are described in detail in Specialised Neurorehabilitation Service Standards, 2015 (Appendix 2). The rehabilitation pathway can be outlined as per the diagram from the British Society of Rehabilitation Medicine (BSRM) below. Whilst this pathway is for trauma patients, the same principles apply for patients with other conditions.

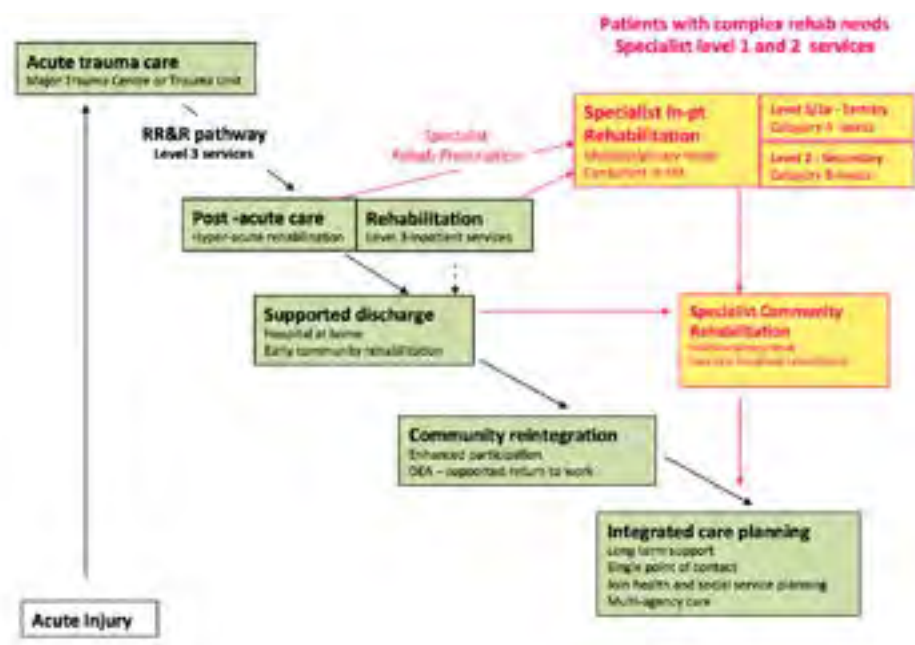


Figure 4: Pathway for patients with trauma

Reproduced with kind permission: *Specialist Rehabilitation in the Trauma pathway: BSRM Core standards* version 1.4. Fig 1 (Adapted from original by Turner-Stokes, L) p5. BSRM October 2013



Further information can be found on the British Society of Rehabilitation Medicine (BSRM) website – www.bsrn.org.uk

From a commissioning perspective, Level 1 services are NHSE funded and Level 2 and 3 services are CCG funded.

For EoE patients, the following facilities are available:

Level 1 services

The most likely discharge destination for EoE patients with complex (neuro) disability requiring a tracheostomy are:

- Colman Centre for Specialist Rehabilitation Services, Norwich, Norfolk
- Regional Rehabilitation Unit, Northwick Park Hospital, Harrow, Middlesex
- Regional Neurological Rehabilitation Unit, Homerton Hospital, London
- The Royal Hospital for Neuro-Disability, Putney, London
- Blackheath Brain Injury Rehabilitation Centre, London
- Central England Rehabilitation Unit, (CERU), Leamington Spa, Warwick

Spinal Cord Injury Centres (NHS England funded):

- Patients from Norfolk, Suffolk and North Cambridgeshire are supported by Sheffield Spinal Cord Injury Centre (SCIC)
- Patients from Essex, Bedfordshire, Hertfordshire and South Cambridgeshire are supported by Stoke Mandeville SCIC

Slow Stream Rehabilitation (CCG funded):

Depending on the area, Slow Stream Rehabilitation may be funded by the patient's CCG with the expectation that the patient will improve and move on in due course. Specialist Nursing Homes are currently the most likely group to provide Slow Stream Rehabilitation, but other Level 2 resources are in development.

The Directory of Rehabilitation Services (DoS) is also an excellent guide on resource availability.

Factors influencing the decision regarding which Level 1 service to access:

- All level 1 services manage patients with a tracheostomy and offer formal assessment of patients with disorders of consciousness
- Tracheostomy bed availability
- Patient's home address and accessibility for family/important others
- Patient and family choice (or best interest decision)

Factors influencing the decision regarding Slow Stream Rehabilitation facility:

- Clinical competence in tracheostomy management, demonstrated patient safety record, measures of quality assurance, CQC reports, historical patient management and clinical and commissioning confidence in service
- Tracheostomy bed availability

The Directory of Rehabilitation Services (DoS) is available on the Trauma Network website
www.eotraumanetwork.nhs.uk



- Adequate staffing levels
- Patient's home address and accessibility for family/important others
- Patient and family choice (or best interest decision)
- Other clinical features of the patient with a tracheostomy falling within the unit's competencies e.g. ability to manage co-existing physical or behavioural issues
- Until the tariff becomes established relative cost may be a factor in decision-making for CCGs

Long term community care for patients with tracheostomies

A cohort of patients who have either completed rehabilitation or for whom rehabilitation has not been appropriate will need long term care in the community. This is likely to be offered in a specialist nursing home (SNH) environment or at home via a specialist support package. Care support for patients with a tracheostomy, unless self-caring, is highly likely to be funded through Continuing Health Care, and decision-making regarding future care will involve the patient or their Deputy (if appointed), the family and the funding CHC organisation. There are a number of factors to be taken into consideration when deciding which environment is most suitable, as set out below.

Issues to be considered when weighing up the relative merits of Home vs SNH

Home care	Specialist Nursing Home care
Emotionally, home care is what most people would wish for	If in a prolonged disorder of consciousness (PDOC) or severely cognitively impaired the location may not be a factor for the patient but may remain so for the family
No travel burden for family	Family may have to travel a considerable distance to see their relative
Remaining family have to live with 24 hour care presence unless undertaking carer burden themselves	Care burden shouldered by in house team so family able to keep family role
The necessary care equipment in the home takes up family living space	No impact on the family home
Respite usually involves family members leaving the home rather than the patient due to organisational difficulties	Family able to have 'time out' and breaks away
If a member of the care team is unexpectedly absent, interim period may need to be filled by a family member requiring them to be trained up in all aspects of care including emergency care	If a member of care team is unexpectedly absent, other staff on duty will cross cover
Care is often delivered by suitably trained up health care assistants with distant supervision of trained nursing staff	Care often delivered by or closely supervised by trained nurses
Day to day medical support via local GP practice who are unlikely to have any tracheostomy experience	Day to day medical support likely to be delivered by a GP practice that has gained experience in looking after patients with a tracheostomy through affiliation with the SNH
Finding and maintaining the care package may be challenging, especially in relatively remote rural areas	Maintenance of skills for staff dependent on throughput of patients with a tracheostomy patients
Local friends can easily visit and patient may be able to access the local community	If SNH a distance away, visits from friends more challenging to sustain, especially in the long-term
Strong relationships with carers can be built up and be very beneficial or the opposite can occur	Strong relationships with the care team can be built up, but relationships can also be a challenge at times
Limited pool of experienced care providers to choose from	Small pool of SNH care providers to choose from, with out of county options a possibility
Cost of care package likely to be greater than for SNH care	Cost of care package likely to be less than for home care package

Other commissioning factors

In addition to the above considerations, it is essential that at the outset the responsibility for who is going to pay for what in terms of tracheostomy-related consumables has been made explicit between the CCG, Continuing Health Care teams (if involved), the care provider and the GP. This is frequently a source of confusion and delay in the patient pathway. This is discussed further in [Section 5, Equipment and Consumables](#).

When transferring the care of a complex patient to be discharged to a community setting (SNH or home) it is also worth considering, within the commissioning framework, organising hands-on care experience for the receiving carers through shadowing the discharging clinical team in their day to day tracheostomy care of the patient.

Section 4 • Pre-transfer preparation

This section applies to any transfer on the patient pathway, whether between in-patient settings or from hospital to specialist rehabilitation setting, specialist nursing home or home.

Preparing for discharge from an acute setting can be a time of great anxiety and excitement for the patient and their family so careful preparation needs to be made in order to ensure a safe and smooth transfer. At the point of discharge, everyone involved should be confident in the arrangements made through effective communication with all parties, including the patient's GP.

The complexity of discharge planning will vary according to the patient's needs and may require a multi-disciplinary approach involving the following professionals:

- Discharge planning lead
- Tracheostomy Specialist Practitioner
- Ward Nurse for knowledge of the patient's day to day care needs
- Speech and Language Therapist for advice on communication and swallowing
- Dietician for advice on nutrition
- Physiotherapist for guidance on respiratory exercises, chest management and mobility
- Occupational Therapist for advice on how to maximise the person's independence as well as working with the physiotherapists on posture and seating as required
- Doctor for advice on the medical issues related to the tracheostomy / overall care
- Community care provider (the receiving team)

The discharge process can be lengthy but needs to be thorough to ensure safe handover.

Key components of a safe discharge

1. Community support and hospital / GP follow up is in place.
2. A list of important contacts has been shared.
3. Completed Trachi-Pass booklet.
4. Completed Tracheostomy Emergency card.
5. Equipment including portable suction, a nebuliser and daily supplies are in place.
6. Registration with the ambulance service and organisation of SMS text alert has been completed.
7. Electricity Board has been contacted to ensure priority re-connection for essential equipment in case of a power cut.

Information required



Note: much of the information required should be available in the transfer of care documentation and should be actively sought out if not available at the time of patient assessment.

Trachi-Pass

The patient should have an up-to-date Trachi-Pass issued to them, which includes personal information, individual tracheostomy information, dates of previous tracheostomy changes and any complications or alerts. A sample of the Trachi-Pass can be found in [Appendix 3](#) and can be ordered from Kapitex Healthcare Ltd (free of charge).

Tracheostomy Emergency card

The patient should be issued with a tracheostomy emergency card which has been developed by EoE Tracheostomy Working Group. This card complements the information on the Trachi-Pass and outlines emergency algorithms for use when out in the community and includes personalised emergency contact numbers. A sample of the card can be found in the [Appendix 4](#).

Rehabilitation Prescription or Discharge Summary

The patient should have an up-to-date Rehabilitation Prescription available (if applicable, eg. trauma patient) or hospital discharge summary which will include a drug list that may contain drugs pertinent to the tracheostomy management, eg. mucolytic agents, nebulised drugs etc

Nursing transfer summary

This should include detailed information on the 24 hour management plan for all aspects of the patient's care including specific care plans for the management of their tracheostomy.

Patient classification

For patients with a tracheostomy with complex needs being transferred to a specialist rehabilitation setting the following data is likely to be collected by the assessing rehabilitation specialist.

- Rehabilitation Complexity score – standard, trauma or specialist nursing home
- Northwick Park Dependency Scale
- Patient Categorisation Tool

Further details on these tools can be found in [Appendix 2](#).

It is also helpful to promote the collection of data on complexity of tracheostomy needs for all patients being discharged into the community using the British Society of Rehabilitation Medicine Levels of Tracheostomy Support Tool (BSRM, October 2015) This data could be stored in a suitable database once all associated Information Governance arrangements have been satisfactorily resolved. The BSRM paper and associated tools are found in [Appendix 5](#).

Practical checklists

A checklist has been developed to help ensure that all aspects of care for a patient with a tracheostomy have been considered prior to transfer to minimise risk, pre and post discharge, and to ensure that the patient remains fit and all plans are in place to maintain safety. If in doubt **delay** the patient's transfer – the risks to the patient are too high. It is best to avoid transfers on a Friday or late in the day in case of complication. It is worth noting that an ambulance journey in itself will often loosen up chest secretions, so **do expect the patient to have increased secretions on arrival and to be in need of early intervention at a level higher than baseline that may continue for 24–48 hours**. The checklist can be found in the *Resources* section.



Note: An ambulance journey between provider organisations is likely to loosen chest secretions and risks to tube dislodgement. Therefore expect increased productivity over the first 24–48 hours.
Be prepared for the patient needing immediate intervention on arrival!

Section 5 • Equipment and consumables

Equipment and servicing

The sourcing and funding of equipment and consumables for this patient group can be a cause of prolonged contention that can impact on patient care and cause excessive delays in discharge. This includes not only the tracheostomy-related equipment, but also other essential items that support patient care such as seating and adapted call bell systems. This can be reduced by having a clear agreement with the appropriate funding authority (CCG, CHC or GP) as to funding responsibility prior to acceptance of a patient. There are certain equipment items that are universal to all tracheostomy patients, so having a checklist of provision and funding along with **prior** agreement with commissioners may help.

Equipment issues can be considered under five main headings:

1. Standard tracheostomy equipment
2. Standard tracheostomy consumables
3. Specialist tracheostomy equipment
4. Additional equipment requirements
5. Maintenance and servicing of equipment.

Standard tracheostomy equipment

Tracheostomy Safety Box



The Tracheostomy Safety Box should **always** be with the patient wherever they go for use in an emergency tube change. All people caring for patients with tracheostomies should be familiar with the contents and how to use them. In care settings staff should check the box on a **daily** basis with a written log to demonstrate this has been done. Expiry date of the contents must also be checked.



Tracheostomy Emergency Box contents

The contents are listed below.



Essential:

- ✓ A spare tracheostomy tube the same size and type as the one in situ
- ✓ A spare tracheostomy tube a size smaller than the one in situ
- ✓ Spare inner cannula
- ✓ Tracheostomy securing tapes/ties/collar
- ✓ Scissors
- ✓ Tracheostomy dressing
- ✓ Two sachets lubricating gel
- ✓ Gloves (*for suctioning*)
- ✓ A spare humidification device (*eg. HME / stoma bib*)
- ✓ Inner tube cleaning sponge/brush.
- ✓ Trachi-Pass
- ✓ Tracheostomy Emergency Card (currently in development)

Optional:

- ✓ If an uncuffed tube is in situ: a spare cuffed tracheostomy tube a size smaller than the one in situ (*for emergency oxygenation and ventilation*)
- ✓ One 10ml syringe
- ✓ Cuff pressure manometer
- ✓ Bag valve mask.

For some individuals with specific needs additional items may be added to the Emergency Box but this will be decided by the Clinical Specialist in charge of the patient's care. If this is the case it is essential that the patient, professionals and carers know what it is and what it is used for!

Standard supporting equipment

- Portable suction unit (with internal battery)
- Portable nebulizer

Kapitex cuff manometer



For nursing home placements

Piped oxygen is advisable as oxygen demands may be high and a back-up generator is also highly recommended.

Standard tracheostomy consumables

The consumables 'prescription' is as important as the drug prescription and potentially more potent in influencing the health and well-being of the patient with a tracheostomy, because if suction catheters run out this could have immediate life-threatening consequences. The discharging unit should collect daily data for 7 days regarding the usage of consumables, and this should be available to the receiving team to inform their Individual Care Assessment (ICA). Suction catheter use in particular can vary from nil to 100/day. This must be considered when placing orders for consumables.

The following is a combined list of the standard equipment and consumables with the usual funding agency listed for each item. This may be subject to local variation, but **must be agreed prior to transfer of care**. Obviously, the cost of provision of these items will be reflected back in the cost of care by the provider, but clarifying who is expected to directly purchase and be responsible for the item is essential.

Table 1. Tracheostomy equipment and consumables

Item	Funding agency	Comment
Equipment		
Portable suction unit with internal battery	CHC / SNH / *acute hospital	*Some acute hospitals supply this equipment
Portable nebulizer machine	CHC / SNH / *acute hospital	*Some acute hospitals supply this equipment
Cuff pressure manometer	CHC / SNH	–
Consumables		
Tracheostomy safety box and contents	Acute Trust	Replenishment of contents is the responsibility of the new provider
Tracheostomy tubes	NHS funded	CHC / SNH
Inner tubes	NHS funded	CHC / SNH
Suction catheters	NHS funded	CHC / SNH
Suction tubing	NHS funded	CHC / SNH
Yankeur suction tubing	NHS funded	CHC / SNH
Bottled sterile water	NHS funded	CHC / SNH
500ml CSSD bowel	NHS funded	CHC / SNH
Suction machine liners	NHS funded	CHC / SNH
Suction machine filters	NHS funded	CHC / SNH
Tracheostomy masks	NHS funded	CHC / SNH
Elephant tubing	NHS funded	CHC / SNH
Catheter mount	NHS funded	CHC / SNH
Nebulizer reservoir and tubing	NHS funded	CHC / SNH
Non latex gloves	NHS funded	CHC / SNH
Face masks	NHS funded	CHC / SNH
Goggles	NHS funded	CHC / SNH
10ml syringes	NHS funded	CHC / SNH
Speaking valve	NHS funded / GP prescription	CHC / SNH
Saline for nebulization	GP prescription	–
Barrier spray/solution	GP prescription	–
Shower protector	GP prescription	–
Inner cannula cleaning swabs	GP prescription	–
Trachy collars	GP prescription	–
Trachy dressings	GP prescription	–
Heat moisture exchangers	GP prescription	–
Buchanan bibs	GP prescription	–
Humidification bibs	GP prescription	–

The above list is not exhaustive and will depend on the individual patient and their needs.

Specialist tracheostomy equipment

Some patients may have highly specialist pieces of equipment, the funding for which will need clarifying prior to discharge. It is incumbent on the host team to make clear the justification for the equipment and its long term requirement, and to start the process of requesting funding, (possibly by an Individual Funding Request (IFR) in a timely fashion so that discharge is not delayed. Examples of such equipment include:

- pulse oximeter with alarm facility suitable for long term use
- heated humidification system
- cough assist.

Additional patient equipment

This may cover the provision of items such as:

- specialist chairs (to optimise patient position)
- adapted call bell system.

Maintenance and servicing of equipment

For each item listed in the table 1, the funder would be assumed to be also responsible for providing a service and maintenance contract for the equipment. It is advisable to seek clarification on this at an early stage in the discharge process.



The consumables 'prescription' is as important as the drug prescription and potentially more potent in influencing the health and well-being of the patient with a tracheostomy!

Day to day hands-on care

All patients with a tracheostomy should have a robust and individualised written care pathway in place to ensure all aspects of care are met in a timely, safe manner allowing for early identification of change in the patient's baseline.

A guidance document is available in the **Resources** section that gives details regarding the main domains of daily tracheostomy care under the following headings:

1. Care of the inner cannula
2. Suctioning
3. Humidification
4. Tracheostomy stoma care and dressings
5. Tracheostomy tapes/collar
6. Cuff pressure monitoring
7. Care of a tracheostomy with a subglottic line
8. Safety
9. Tracheostomy equipment supplies.



An EoE Tracheostomy Care and Observation chart has also been produced for use in the community setting which enables the documentation of daily safety checks, patient oxygenation and suctioning requirements. This can be found the **Resources** section.

Setting up

The practical side of looking after a tracheostomy in a community setting is largely similar to that in an acute setting but there are some differences, especially in the home environment.

Whatever the setting, it is useful to have either a clinical trolley or a table with an easy-wipe surface available on which to store the tracheostomy equipment. A stack of drawers, which are readily available from high street shops, will also be useful for storage. Hand cleansing is essential for tracheostomy care if self-managing, and if help is required from another person access to Personal Protective Equipment is essential such as disposable aprons and gloves.

A method of disposal of clinical waste needs to be organised in advance. This could be through the provision of clinical waste bags via the District Nurses or the GP surgery. Suction waste can be flushed away down the toilet or disposed of as clinical waste in vac sac bags.

Day to day equipment and supplies

A comprehensive range of equipment and consumables has been listed in the **Resources** section. The day to day items that need to be readily available on the clean table or in the storage drawers are:

- designated bowl to keep the spare inner tube in – to be cleaned daily
- sterile water (if in a clinical setting)
- inner tube cleaning sponge/brush (sponge – single use, brush – change 24hrs)
- suction device with Yankaeur sucker and suction catheters (needs to be portable and often comes with in car charger). Tubing to be changed 72hrs after use.

Humidification devices:

- bib
- HME
- nebuliser.

Sundries:

- spare dressings/neck ties
- lubricating gel
- saline
- sterile gauze for cleaning the stoma
- barrier cream for stoma
- shower guard
- dressing packs
- 10 ml syringes
- suction catheters
- suction tubing.

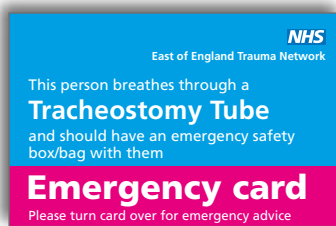
Section 7 • Tracheostomy emergencies in the community

The management of tracheostomy-related emergencies is part of the TST package – further information on the TST can be sourced from the Trauma Network Office. An emergency algorithm is also to be found on the Tracheostomy Emergency card that should be issued to each patient leaving hospital (see [Section 4](#) and [Appendix 4](#)). This will also help the attending paramedics who may not be familiar with tracheostomy care. In addition, if a patient needs to be transferred as an emergency to an acute hospital a helpful checklist of things to remember to do/send with the patient has been developed and can be found in the *Resources* section. It is suggested that this is kept with the Emergency Tracheostomy Box for ease of access during an emergency.



Summary list of aids in managing an emergency

1. Tracheostomy Emergency Box
2. Tracheostomy Emergency card (currently in development)
3. Transfer / discharge checklist



Remember to check the contents of the Tracheostomy Emergency Box daily!

Section 8 • Living with a tracheostomy in the community

This section looks at various aspects of living with a tracheostomy in the community:

- setting up the living space for daily tracheostomy care
- special considerations for people with more complex needs requiring carer support
- living with carers in the home environment
- clinical and professional support that might be required
- tips on living with a tracheostomy
- psychological and emotional aspects of living with a tracheostomy.

Whether transferring to a rehabilitation unit, SNH or back home, the environment in which the patient will be living is extremely important. There are potentially competing demands from making the space welcoming, a place to live but practical and concordant with infection control guidance. The relative balance of these demands shifts as the environment becomes less clinical. Below are outlined some issues to think about when considering the living space in both a specialist rehabilitation/SNH and home situation. The **Community Tracheostomy Care Video** (link available in the **Resources** section) also gives advice on bedside equipment in a community setting.

Living environment (specialist rehabilitation setting or SNH)

In this sort of setting the living space is likely to be clinical and similar to that found in an acute environment. The general environmental needs for looking after a patient with a tracheostomy would include:

- room needs to be in an area of high footfall with easy audibility and visibility unless 1:1 nursing or cohort nursing
- piped oxygen availability
- wall suction available (mains operated portable suction units are an alternative)
- storage units – easy wipe
- work surface – easy wipe
- infection control/management of clinical waste as per local policies
- call bell or listening device / baby monitor with camera.

Living environment (home)

- enough space for bed, tracheostomy equipment and any other moving and handling equipment according to the patient's needs
- clean, and clutter free
- adequate lighting
- easy-wipe stackable plastic drawers are ideal for storage
- easy-wipe work surface

The video can be accessed via YouTube – please follow the link:
www.youtube.com/watch?v=O16SDHM4KsE



Special considerations

Management of clinical waste needs to be planned – clinical waste bags can usually be obtained from District Nurses or from the GP surgery.

- emergency access for an ambulance needs to be considered
- for patients requiring oxygen, space for an oxygen concentrator and oxygen storage needs consideration
- if carers are required to support the patient/client they must have a good view of the patient at all times, without their presence being intrusive. Careful consideration is required to the amount of observation the patient requires, i.e. carers will require break times.
- the carers must have access to a toilet and the kitchen
- parking space for carers needs to be considered.

Patient/client specific planning in the patient's home

When delivering care in someone's home you are a guest, and being mindful of the sensibilities of the individual and their family is essential. Like everyone else, the person with a tracheostomy will have preferences and an established lifestyle that they wish to continue to the best of their ability. Just a few of the areas that need to be considered when setting up a home-care packages are:

- male/female carer preferences
- family members – the carer will be living in their home too
- pets – getting on with the pet is as important as getting on with the client!
- culture – are there any cultural/religious factors that need to be considered?
- boundaries – these may change over time but regular review of the relationships that form is required to make sure that 'boundary drift' is not occurring inappropriately.

Clinical/professional support for the core staff team

The exact make-up of the clinical and professional support team will vary depending on the nature of the community placement, whether the person is in a NHS rehabilitation placement, a specialist nursing home or is at home.

Medical support

In terms of medical back-up, it is likely that this will be greatest in an NHS rehabilitation setting and will include Consultant in Rehabilitation Medicine support. This may still be available on a sessional basis in a SNH, but the day to day medical care is likely to be provided by the GP Practice. If based in a SNH, the attending GP practice will gain experience over time of dealing with tracheostomy-related issues, but it is helpful to offer specific training to the GP's as this patient group is a concern and a challenge to all doctors who have not had exposure to managing tracheostomies.

If the patient is going back home, the patient's GP needs to be alerted in advance so that they are aware of the patient transferring back under their care. The associated

prescription responsibilities need to be highlighted in advance and awareness of continuity of supplies. The patient may be unable to attend the surgery so home visits will be required. GP and Community Matrons may wish to register the patient on their complex caseload list.

The patient may also remain under the care of the hospital specialist (Ear, Nose and Throat or Respiratory Consultant) and this should be clearly documented.

Community nursing

Community or District Nurses are likely to be required for some aspects of care and may need some tracheostomy training in advance of the patient transferring back into the community.

Specialist tracheostomy support

Depending on where in the region the patient lives, specialist tracheostomy support may only come from the care provider. In some areas the patient may also have access to ongoing support through an outreach service provided by a Specialist Tracheostomy practitioner.

Community health services

Dependent upon need, the patient will require ongoing support from various community services such as the Wheelchair Service, Orthotics, Pharmacy, and Allied Health Professionals including Dietetics, Speech and Language Therapy, Physiotherapy and Occupational Therapy.

Out and about with a tracheostomy

Chapter 6 of the video Community Tracheostomy Care (available in the **Resources** section) is titled 'Living with a tracheostomy – a personal perspective' and this chapter features an interview with Mike who lives at home with a tracheostomy. Mike is self-caring, and in the interview he gives a frank appraisal of what day to day life is like with a tracheostomy, and he shares some tips for others that he has learnt along the way.

Further useful information can also be found in the Patient and Carer Tracheostomy Leaflet (available in the **Resources** section) which also describes some daily hazards to be aware of.

Psychological and emotional issues

Having a long term tracheostomy is frequently associated with psychological and emotional issues. This is unsurprising as having a long term tracheostomy implies a significant health event that has not fully resolved. For some people coming to terms with how ill they have been and what they have experienced can cause stress, anxiety, sleep disturbances and degrees of depression.

The psychological and emotional strain on a family member acting as a care provider should also be acknowledged; relationships can change, for example a spouse may become a carer. With this in mind, professionals involved with the family should actively assess caregivers as well as the patient when conducting visits and where required patients and relative carers should be offered any available psychological or emotional support.

Each person will be on their own individual journey in coming to terms with what has happened to them and peer contact is one way of offering support. It is likely that the Tracheostomy Specialist Practitioner (or the clinician who leads on tracheostomy care in the acute setting) will know of other individuals in the community who might be prepared to meet up and offer support and this should be considered where appropriate.

The majority of critical care units now offer a follow-up clinic and this is available for patients and families to access advice and support on events leading up to their tracheostomy and beyond.

For those who need more formal support, a referral may be required to receive psychological therapy either through GPs or the local 'Improving access to psychological therapies' (IAPT) services.

Body image is extremely important and giving advice on judicious use of clothing to mask the presence of a tracheostomy is important. There are various websites available through the internet that specialise in garments that can be worn with a tracheostomy. On the other hand, some people embrace the notion of their long term tracheostomy fully and wear it proudly, especially those using silver tubes.

Section 9 • Community tracheostomy care training and assessment framework

Clinical Support

Pre transfer training of staff and carers

Whether the patient is going to be transferred home supported by a bespoke care package delivered by trained carers, or to a specialist rehab or nursing home setting, all will need to be competent in tracheostomy care. In the home setting, this also includes family who may have to step in if there is a problem with the care package. Some patients are self-caring, and their training needs must also be met prior to discharge.

In addition to gathering the information outlined in the previous section for a small number of patients, hands-on experience of the patient care will be recommended prior to transfer by at least two members of the prospective care team. This may require the setting up of honorary contracts with the host hospital, but this should not be a barrier to ensuring this opportunity is available. The funding of this time spent should be acknowledged in the Individual Care Assessment (ICA), and commissioners should be encouraged to support this activity which could help prevent a readmission.

Training and tracheostomy care competencies

A comprehensive tracheostomy skills training programme incorporating competency and knowledge assessment framework has been developed as part of these community guidelines. The documentation is comprised of:

1. Nurse and carer adult tracheostomy skills training programme with learning objectives
2. Learner course pack
3. Skills assessment of essential tracheostomy care
4. Assessment document
5. Certificate of attendance.

These competencies have been developed iteratively through combining the best of a range of existing resources available through members of the Working Party and other resources available nationally.

Disseminating community tracheostomy care training

One of the main problems with delivering tracheostomy care in the community is the maintenance of competencies in the provider organisation, whether it be a specialist nursing home or a specialist home care provider. Tracheostomy patient numbers are fluctuant, so an organisation may have periods of time when these services are not required and so competence and confidence wanes. The introduction of these competencies specifically devised for the patient with a tracheostomy in the community gives a basis for standard-setting, but delivering this training and maintaining competencies so that services can respond to the peaks and troughs of demand is also essential. In the East of England, a comprehensive training programme has been put together which is aimed at healthcare support workers, healthcare professionals and carers.



Learning Objectives

The TST Sessions learning objectives are:

1. understand why a tracheostomy is required.
2. recognise different types and parts of a tracheostomy tube
3. perform all aspects of essential tracheostomy care
4. recognise complications associated with a tracheostomy
5. describe actions to manage complications.

Course Programme

SESSION

Registration with tea and coffee

Welcome and Introductions

Establish learning objectives, clarify teaching and assessment methods.

Session 1: Essential tracheostomy knowledge

What is a tracheostomy?

Anatomy and Physiology of the upper airway

Indications for a tracheostomy

Types of tracheostomy tubes

Complications

Essential skills session 1: 'Keep it clear'

Humidification methods

Inner cannula care

Suctioning

Sub-glottic aspirate

Essential skills assessment 1: 'Keep it clear'

Assessment of delegates in small groups in practical skills with manikins.

Essential skills session 2: 'Keep it in'

Changing tracheostomy tapes and changing the dressing

Cuff inflation and monitoring

Essential skills assessment 2: 'Keep it in'

Assessment of delegates in small groups in practical skills with manikins.

Confirm understanding of consequences.

Session 3: Emergency skills practical demonstration

Airway assessment with a tracheostomy, changing a tracheostomy

Patient safety and dealing with tracheostomy complications and emergencies.

EMERGENCY SCENARIO

KNOWLEDGE ASSESSMENT

Evaluation of training

Trainers return to their groups for individual feedback to delegates with certificates of attendance.

Course Delivery

The course is delivered by experts covering a wide range of core skills involved in tracheostomy care. Close teaching and training with six delegates to one trainer with a combination of lectures and engaging practical training sessions. Delegates have the opportunity to train in essential practical skills required for tracheostomy care.

Further information can be obtained from the Trauma Network Office.

Assessment

In the practical skills and assessment delegates will be assessed against the below elements:

Skill	Elements assessed
'Keep it clear'	<ul style="list-style-type: none"> • Can attach and remove HME • Can set up and attach a nebuliser • Can demonstrate a change inner cannula • Can demonstrate safe suctioning technique • Can demonstrate sub-glottic aspiration
'Keep it in'	<ul style="list-style-type: none"> • Can demonstrate safe and effective tape and dressing change • Can demonstrate cuff pressure monitoring
Emergency skills	<ul style="list-style-type: none"> • Can describe and demonstrate • Can describe signs of complications • Can describe appropriate first responses to an airway emergency • Can demonstrate with guidance the removal and replacement of a tracheostomy tube

Feedback

The first course was trialled in March 2018 and below is some of the feedback received from the participants.

“

“It was a brilliant course. The practical parts were really useful.”

“All of the training course was very interesting.”

“I found the whole course was very interesting and was presented well which kept everyone engaged.”

“Liked the small groups (mix of skills) and to do practical skills without feeling intimidated.”

“Fantastic trainers. Made it a very comfortable and informal course but with expert knowledge shared very effectively. Thank you. Great team.”

“Very much enjoyed the course. Trainers were very informative and very good! Well done ladies.”

“This course should be organised yearly.”

“Good course and resourceful teachers.”

“Superb course, highly recommended. Superb presentations and resources, highly professional trainers.”

“Excellent course, very informative with lots of content.”

“I wanted to say how fantastic the training was, my seniors returned to the service with such enthusiasm for Trache care that they requested the nurse to supervise them providing suctioning, dressing changes, cuff pressure monitoring, the nurse was so impressed with their knowledge and skill that she became redundant in one afternoon which meant she could focus on updating care plans...”



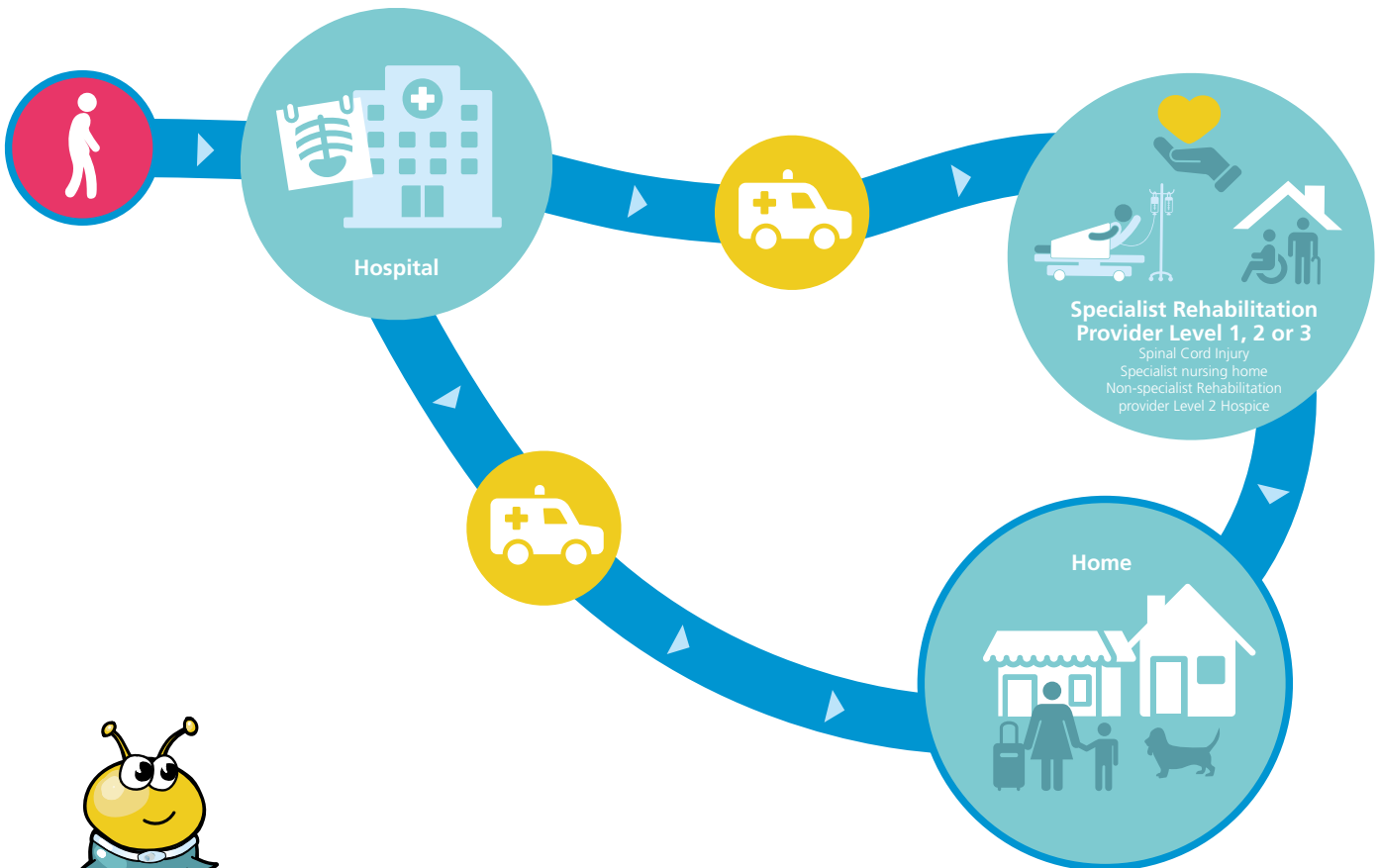
The combination of competency assessed staff alongside a training delivery programme will help to sustain community tracheostomy care in the EoE.

Section 10 • Summary

We hope that in the development of these guidelines and the supporting community tracheostomy training and education framework, we are able to improve safety for the community tracheostomy patient whilst also focussing on quality of life. Our overall aim is to support these patients throughout their journey with the care they require in the best environment for each individual.

Whilst we cannot remove risk completely we can educate, inform and support the patient along with their carers and relatives to improve their ability to manage the challenges in life, which living with a tracheostomy can bring about. In so doing, we hope that having a tracheostomy in itself becomes a less prominent issue in the individual's life – something to be 'lived with' and not 'dominated by'.

We also hope that by raising the profile of this patient group, interest will be stimulated in the wider aspects of their care, in particular the psychological and emotional factors that play such a dominant role in defining quality of life. These aspects are in need of exploration through well-constructed research so that the approach by all those involved in managing these patients can be both holistic and evidence-based.



Appendices



Abbreviations

ADL	Activities of daily living
BSRM	British Society of Rehabilitation Medicine
CCG	Clinical Commissioning Group
COSHH	Control of substances harmful to health
CQC	Care Quality Commission
CCSRS	Colman Centre for Specialist Rehabilitation Services
CHC	Continuing Health Care
CINAHL	Cumulative index to nursing and allied health literature
CUH	Cambridge University Hospitals NHS Foundation Trust
DEA	Disability employment adviser
DOS	Directory of Rehabilitation Services
EoE	East of England
EoETN	East of England Trauma Network
ENT	Ear, nose and throat
EoECCN	East of England Critical Care Network
GP	General Practitioner
HME	Heat moisture exchanger
ICA	Individual care assessment
IFR	Individual funding request
MDT	Multi-disciplinary team
MTC	Major Trauma Centre
NCEPOD	National confidential enquiry into patient outcome and death
NUUH	Norfolk and Norwich University Hospital NHS Foundation Trust
NTSP	National Tracheostomy Safety Project
ODN	Operational Delivery Network
PDOC	Prolonged disorder of consciousness
RM	Rehabilitation medicine
R,R&R	Rehabilitation, reablement and recovery
SCIC	Spinal Cord Injury Centre
SaLT	Speech and language therapist
SNH	Specialist nursing home
QEH	The Queen Elizabeth Hospital, King's Lynn NHS Foundation Trust

Definitions of levels of rehabilitation services

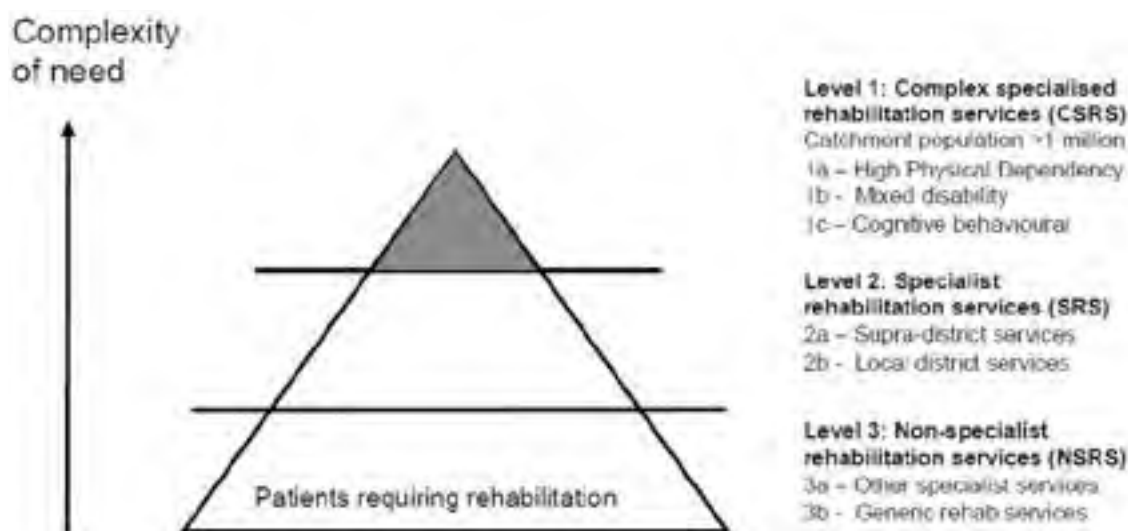
Since the reorganisation of the NHS following the Health and Social Care Act 2012, tertiary specialist rehabilitation for patients with highly complex (category A needs) are commissioned directly by NHS England.

Local specialist and general services are commissioned by the Clinical Commissioning Groups (CCGs).

1. Within each locality (Level 3): Local non-specialist rehabilitation teams provide general multi-professional rehabilitation and therapy support for a range of conditions within the context of acute services (including stroke units), intermediate care or community services.
2. Local (district) specialist rehabilitation services (Level 2) are typically planned over a district-level population of 350–500K, and are led or supported by a consultant trained and accredited in Rehabilitation medicine (RM), working both in hospital and the community setting. The specialist multidisciplinary rehabilitation team provides advice and support for local general rehabilitation teams.
3. Tertiary 'specialised' rehabilitation services (Level 1) are high cost / low volume services, which provide for patients with highly complex rehabilitation needs that are beyond the scope of their local and district specialist services. These are normally provided in co-ordinated service networks planned over a regional population of 1–5 million through specialised commissioning arrangements. These services are sub-divided into:
 - Level 1a – patients with high physical dependency
 - Level 1b – patients with mixed disability (physical and behavioural)
 - Level 1c – patients with cognitive/behavioural disabilities.
4. Hyper-acute Specialist Rehabilitation services. Since the development of the Major Trauma Networks, a new category of 'Hyper-acute rehabilitation' unit has been developed. These units are sited within acute care settings. They take patients at a very early stage in the rehabilitation pathway when they still have medical and surgical needs requiring continued active support from the trauma, neuroscience or acute medical services.

The full document of levels of rehabilitation services can original on the BSRM website www.bsrn.org.uk in the standards and guidelines section under 'specialist neuro-rehab services'

Figure 1: Different levels of complexity in rehabilitation service provision



Level 1:	Specialised rehabilitation services Provided by specialised rehab teams led by consultants trained and accredited in the speciality of rehabilitation medicine (RM) (and/or neuropsychiatry):		
	<table border="1"> <tr> <td>Serving a regional or supra-regional population and taking patients with Category A needs – ie severe physical, cognitive communicative disabilities or challenging behaviours, with highly complex rehabilitation needs* that are beyond the scope of their local specialist rehabilitation services, and have higher level facilities and skilled staff to support these. Collect and report full National Specialist Rehabilitation Dataset</td> <td>Catchment: 1-3 million Predominantly highly complex caseload: At least 85% pts have Category A needs on admission At least 70% pts with RCS-E score ≥ 11 cross-sectionally</td> </tr> </table>	Serving a regional or supra-regional population and taking patients with Category A needs – ie severe physical, cognitive communicative disabilities or challenging behaviours, with highly complex rehabilitation needs* that are beyond the scope of their local specialist rehabilitation services, and have higher level facilities and skilled staff to support these. Collect and report full National Specialist Rehabilitation Dataset	Catchment: 1-3 million Predominantly highly complex caseload: At least 85% pts have Category A needs on admission At least 70% pts with RCS-E score ≥ 11 cross-sectionally
Serving a regional or supra-regional population and taking patients with Category A needs – ie severe physical, cognitive communicative disabilities or challenging behaviours, with highly complex rehabilitation needs* that are beyond the scope of their local specialist rehabilitation services, and have higher level facilities and skilled staff to support these. Collect and report full National Specialist Rehabilitation Dataset	Catchment: 1-3 million Predominantly highly complex caseload: At least 85% pts have Category A needs on admission At least 70% pts with RCS-E score ≥ 11 cross-sectionally		

LOCAL REHABILITATION SERVICES - provided at district level

Level 2:	Local (district) specialist rehabilitation services Provided by inter-disciplinary teams led/supported by a consultant in RM, and meeting the BSRM standards for specialist rehabilitation services		
Level 2a	<table border="1"> <tr> <td>Led by consultant in RM. Serving an extended local population in areas which have poor access to level 1 services. Take patients with a range of complexity, including Category B and some Category A with highly complex rehabilitation needs* Collect and report full National Specialist Rehabilitation Dataset.</td> <td>Catchment: 600K-1 million Mixed caseload 50-80% Category A needs on admission 50-70% RCS-E score ≥ 11 cross-sectionally</td> </tr> </table>	Led by consultant in RM. Serving an extended local population in areas which have poor access to level 1 services. Take patients with a range of complexity, including Category B and some Category A with highly complex rehabilitation needs* Collect and report full National Specialist Rehabilitation Dataset.	Catchment: 600K-1 million Mixed caseload 50-80% Category A needs on admission 50-70% RCS-E score ≥ 11 cross-sectionally
Led by consultant in RM. Serving an extended local population in areas which have poor access to level 1 services. Take patients with a range of complexity, including Category B and some Category A with highly complex rehabilitation needs* Collect and report full National Specialist Rehabilitation Dataset.	Catchment: 600K-1 million Mixed caseload 50-80% Category A needs on admission 50-70% RCS-E score ≥ 11 cross-sectionally		
Level 2b	<table border="1"> <tr> <td>Led/supported by a consultant in RM. Serving a local population, predominantly patients with Category B needs. Collect and report at least the minimum national dataset</td> <td>Catchment: 250-500K Less complex caseload eg 30-50 % Category A needs on admission 30-50% RCS-E score ≥ 11 cross-sectionally</td> </tr> </table>	Led/supported by a consultant in RM. Serving a local population, predominantly patients with Category B needs. Collect and report at least the minimum national dataset	Catchment: 250-500K Less complex caseload eg 30-50 % Category A needs on admission 30-50% RCS-E score ≥ 11 cross-sectionally
Led/supported by a consultant in RM. Serving a local population, predominantly patients with Category B needs. Collect and report at least the minimum national dataset	Catchment: 250-500K Less complex caseload eg 30-50 % Category A needs on admission 30-50% RCS-E score ≥ 11 cross-sectionally		
Level 3:	Local non-specialist services. Includes generic rehabilitation for a wide range of conditions, provided in the context acute, intermediate care and community facilities, or other specialist services (eg stroke units)		
Level 3a	Other specialist services led or supported by consultants in specialities other than RM - eg services catering for patient in specific diagnostic groups (eg stroke) with Category C needs. Therapy / nursing teams have specialist expertise in the target condition		
Level 3b	Generic rehabilitation for a wide range of conditions, often led by non-medical staff, provided in the context acute, intermediate care and community facilities, for patients with Category D needs		

*Defined by Rehabilitation Complexity / Northwick Park nursing and Therapy Dependency Scores – see below for more detail

Table 1: Four categories of patient need for rehabilitation services

<p>Patients with Category A rehabilitation needs</p> <ul style="list-style-type: none"> ● Patient goals for rehabilitation may include: <ul style="list-style-type: none"> ● Improved physical, cognitive, social and psychological function / independence in activities in and around the home; ● Participation in societal roles (eg work / parenting / relationships); ● Disability management eg to maintain existing function; manage unwanted behaviours / facilitate adjustment to change ● Improved quality of life and living including symptom management, complex care planning, support for family and carers, including neuropalliative rehabilitation ● Patients have complex or profound disabilities e.g. severe physical, cognitive communicative disabilities or challenging behaviours. ● Patients have highly complex rehabilitation needs and require specialised facilities and a higher level of input from more skilled staff than provided in the local specialist rehabilitation unit. In particular rehabilitation will usually include one or more of the following: <ul style="list-style-type: none"> ● intensive, co-ordinated interdisciplinary intervention from 4 or more therapy* disciplines, in addition to specialist rehabilitation medicine/nursing care in a rehabilitative environment ● medium length to long term rehabilitation programme required to achieve rehabilitation goals – typically 2-4 months, but up to 6 months or more, providing this can be justified by measurable outcomes ● very high intensity staffing ratios e.g. 24 hour 1:1 nurse "specialling", or individual patient therapy sessions involving 2-3 trained therapists at any one time ● highest level facilities /equipment e.g. bespoke assistive technology / seating systems, orthotics, environmental control systems/computers or communication aids, ventilators. ● complex vocational rehabilitation including inter-disciplinary assessment / multi-agency intervention to support return to work , vocational retraining, or withdrawal from work / financial planning as appropriate ● Patients may also require: <ul style="list-style-type: none"> ● Highly specialist clinical input e.g. for tracheostomy weaning, cognitive and/or behavioural management, low awareness states, or dealing with families in extreme distress ● ongoing investigation / treatment of complex / unstable medical problems in the context of an acute hospital setting ● neuro-psychiatric care including: risk management, treatment under sections of the Mental Health Act, ● support for medicolegal matters including mental capacity and consent issues ● Patients are treated in a specialised rehabilitation unit (i.e. a Level 1 unit). ● Patients may on occasion be treated in a Level 2 unit depending on the availability of expert staff and specialist facilities as well as appropriate staffing ratios.
<p>Patients with Category B rehabilitation needs</p> <ul style="list-style-type: none"> ● Patient goals for rehabilitation may be as for category A patients ● Patients have moderate to severe physical, cognitive and/or communicative disabilities which may include mild-moderate behavioural problems ● Patients require rehabilitation from expert staff in a dedicated rehabilitation unit with appropriate specialist facilities. ● In particular rehabilitation will usually include one or more of the following: <ul style="list-style-type: none"> ● Intensive co-ordinated interdisciplinary intervention from 2-4 therapy disciplines in addition to specialist rehabilitation medicine/nursing care in a rehabilitative environment ● medium length rehabilitation programme required to achieve rehabilitation goals – typically 1-3 months, but up to a maximum of 6 months, providing this can be justified by measurable outcomes ● special facilities/ equipment (e.g. specialist mobility/ training aids, orthotics, assistive technology) or interventions (e.g. spasticity management with botulinum toxin or intrathecal baclofen) ● interventions to support goals such as return to work, or resumption of other extended activities of daily living, eg home-making, managing personal finances etc ● Patients may also have medical problems requiring ongoing investigation/treatment ● Patients are treated in a local specialist rehabilitation unit (i.e. a Level 2 unit).

Patients with Category C rehabilitation needs

- Patient goals are typically focused in restoration of function / independence and co-ordinated discharge planning with a view to continuing rehabilitation in the community
 - Patients require rehabilitation in the context of their specialist treatment as part of a specific diagnostic group (e.g. stroke)
 - Patients may be medically unstable or require specialist medical investigation / procedures for the specific condition
 - Patients usually require less intensive rehabilitation intervention from 1-3 therapy disciplines in relatively short rehabilitation programmes (i.e. up to 6 weeks)
 - Patients are treated by a local specialist team (i.e. Level 3a service) which may be led by consultants in specialties other than Rehabilitative Medicine (e.g. neurology / stroke medicine) and staffed by therapy and nursing teams with specialist expertise in the target condition.
-

Patients with Category D rehabilitation needs

- Patient goals are typically focused in restoration of function / independence and co-ordinated discharge planning with a view to continuing rehabilitation in the community if necessary
 - Patients have a wide range of conditions but are usually medically stable
 - Patients require less intensive rehabilitation intervention from 1-3 therapy disciplines in relatively short rehabilitation programmes (i.e. 6-12 weeks)
 - Patients receive an in-patient local non-specialist rehabilitation service (i.e. Level 3b) which is led by non-medical staff.
-

Therapy disciplines may include: physiotherapy, occupational therapy, speech and language therapy, psychology, dietetics, social work, orthotics, rehabilitation engineering, vocational / educational support (including play therapy in children's settings).

Defining Complexity in Rehabilitation

In rehabilitation, diagnosis is a poor indicator of need for rehabilitation or the costs of providing it.

The key factors that determine complexity of **rehabilitation needs** are:

- Needs for basic care and safety
- Needs for skilled nursing care
- Needs for therapy input – no of disciplines involved and intensity of treatment
- Needs for medical care and intervention
- Needs for specialist equipment / facilities.

However, if a service is to take patients with complex needs, it must be able to demonstrate that it provides a **level of rehabilitation inputs** and facilities commensurate with those needs.

And if the commissioners are to fund these higher-level services, there must be measurable **outcomes** to demonstrate that useful gain has been made.

A hierarchical series of tools has been developed to capture needs, inputs and outcomes, with more detailed tools being used to define higher levels of complexity in low volume–high cost services. These form part of the National Dataset for Specialist Rehabilitation Services, and are collated through the UK Rehabilitation Outcomes Collaborative (UKROC) database.

Needs and inputs

- The **Rehabilitation Complexity Scale (RCS-E)** is designed as simple tool to measure the complexity of needs for rehabilitation resources in terms of nursing care, medical support therapies, and specialist equipment. It is easy and quick to apply and performs well as a casemix measure. It does not provide any information on how clinical teams spend their time with patients
- The **Northwick Park nursing and therapy dependency tools** have been developed to provide a more detailed evaluation of needs / inputs for use in the high cost/low volume services
 - The **NPDS** is an ordinal measure of needs for care and skilled nursing. It translates by a computerised algorithm into an assessment of **care hours** (the **NPANA** (Northwick Park care needs assessment))
 - The **NPTDA** is an equivalent tool for assessment needs for therapy intervention. It also translated by a computerised algorithm into **therapy hours** for each discipline

All of these tools may be applied either prospectively (to measure *needs for rehabilitation*) or retrospectively to measure *inputs actually provided*, and hence to confirm that needs have been adequately provided for – or alternatively to identify gaps in the level of service provision.

Further information on these tools can be found via the UKROC website at www.ukroc.org

Trachi-Pass

The Trachi-Pass contains important information about the patient's tracheostomy. The tracheostomy passport should be completed prior to discharge from hospital and updated as required. It should be stored in the Tracheostomy Emergency Box and accompany the patient wherever they go.

It can be obtained free of charge from Kapitex Healthcare Ltd – Tel: 01937 580211



TRACHI-PASS
PERSONAL TRACHEOSTOMY PASSPORT

**THIS PASSPORT BELONGS TO ME.
IT IS A PATIENT HELD RECORD, PLEASE RETURN IT.**

First Name: _____
Surname: _____

**THIS PASSPORT CONTAINS IMPORTANT
INFORMATION ABOUT YOU AND YOUR
TRACHEOSTOMY. PLEASE TAKE IT WITH
YOU TO ALL APPOINTMENTS.**

PLEASE READ THIS IF YOU ARE INVOLVED IN MY TRACHEOSTOMY CARE

Produced by Kapitex Healthcare Ltd (www.kapitex.com)



AFFIX HOSPITAL LABEL

Patient Tel No: _____
Mobile No: _____ Consultant: _____

USEFUL CONTACTS

HOSPITAL CONTACT:

Name: _____
Role: _____
Tel No: _____

COMMUNITY CONTACT:

Name: _____
Role: _____
Tel No: _____

GP: _____
Surgery: _____
Tel: _____

NEXT OF KIN

Tel: _____
Relationship: _____
Name: _____ Signature: _____ Date: _____

TRACHEOSTOMY HISTORY

Date of Procedure: _____
Reason for insertion: _____

Relevant Past Medical History: _____

Relevant Drug History: _____

Allergies: _____

Tracheostomy RED FLAG Information:

Upper Airway: Patent Not Patent Difficult

Relevant detailed information: (eg. Bleeding, Granulation, Occlusion, Dislodged tube, False tract.)

Name: _____ Date: _____

TRACHEOSTOMY INTERVENTION RECORD

Date: / /

Size: _____ Maker/Brand: _____

Cuffed Un-Cuffed Inner Tube No Inner Tube

Fenestrated Un-Fenestrated Sub-Glottic Port: Yes No

NEXT CHANGE DUE: _____

Changed by: Name: _____ Role: _____ Initials: _____

Date: / /

Size: _____ Maker/Brand: _____

Cuffed Un-Cuffed Inner Tube No Inner Tube

Fenestrated Un-Fenestrated Sub-Glottic Port: Yes No

NEXT CHANGE DUE: _____

Changed by: Name: _____ Role: _____ Initials: _____

TRACHEOSTOMY INTERVENTION RECORD

Date: / /

Size: _____ Maker/Brand: _____

Cuffed Un-Cuffed Inner Tube No Inner Tube

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Date: / /

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Date: / /

Size: _____ Make/Brand: _____

Cuffed Un-Cuffed Inner Tube No Inner Tube

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NEXT CHANGE DUE: _____

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Size: _____ Make/Brand: _____

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NEXT CHANGE DUE: _____

Changed by: Name: _____ Role: _____ Initials: _____

Date: / /

Size: _____ Make/Brand: _____

Cuffed Un-Cuffed Inner Tube No Inner Tube

Fenestrated Un-Fenestrated Sub-Glottic Port: Yes No

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Changed by: Name: _____ Role: _____ Initials: _____

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Date: / /

Size: Make/Brand:

Cuffed Un-Cuffed Inner Tube No Inner Tube
 Fenestrated Un-Fenestrated Sub-Glottic Port: Yes No

NEXT CHANGE DUE: _____

Changed by: Name: _____ Role: _____ Initials: _____

Date: / /

Size: Make/Brand:

Cuffed Un-Cuffed Inner Tube No Inner Tube
 Fenestrated Un-Fenestrated Sub-Glottic Port: Yes No

NEXT CHANGE DUE: _____

Changed by: Name: _____ Role: _____ Initials: _____

TRACHEOSTOMY INTERVENTION RECORD

Date: / /

Size: Make/Brand:

Cuffed Un-Cuffed Inner Tube No Inner Tube
 Fenestrated Un-Fenestrated Sub-Glottic Port: Yes No

NEXT CHANGE DUE: _____

Changed by: Name: _____ Role: _____ Initials: _____

Date: / /

Size: Make/Brand:

Cuffed Un-Cuffed Inner Tube No Inner Tube
 Fenestrated Un-Fenestrated Sub-Glottic Port: Yes No

NEXT CHANGE DUE: _____

Changed by: Name: _____ Role: _____ Initials: _____

TRACHEOSTOMY TUBE MANAGEMENT

Inner Tube: YES NO Disposable Reusable

If Disposable Change: _____ x Daily

If Reusable Clean: _____ x Daily

Cleaning Method:

Cuffed: YES NO

If YES detail of cuff management (eg. hours on inflation or deflation):

Day: _____

 Night: _____

Cuff Pressure Checks

Frequency: _____
 Equipment: _____
 Target Range: _____

Initials: _____ Date: _____

Tracheostomy Tube Management:**Fenestrated:**

If YES any relevant information (eg. used when): _____

Tube Securing Device:

Type: _____
 Size: _____
 Change: _____

Secretion Management:

Sub-Glottic Part YES NO

If YES detail of management (eg. how often suctioned):

Frequency: _____
 Usual volume: _____
 Equipment Used: _____

CHEST CLEARANCE**Tracheal Suction:**

Suction Pressure: _____ Depth: _____
 Frequency: _____
 Catheter size: _____
 Type: Closed Open
 Carried out by: _____

Initials: _____ Date: _____

Sputum: (normal appearance and volume)

Cough Ability:

Comment: _____

Chest Clearance Routine: YES NO

If YES detail of management (eg. cough assist, physio techniques):

STOMA Management:

Tissue Viability Comment: _____

Dressing: _____

Barrier Protection: _____

Stoma Site Cleaning Routine: _____

Humidification:

TYPE	USAGE
Airway Protector eg. Buchanan Bib	
Heated Humidifier eg. Fisher & Paykel via Trache Mask	
Heat/Moisture Exchanger HME	
Nebulisers	

Initials: _____ Date: _____

Communication:

Speaking Valve	
Occlusion Cap	
Written	
Electronic AID	
Other	

Speaking Valve:

Type: _____

Management Details : Day: _____

Night: _____

Swallowing :

Swallowing Assessment Date: _____

Results: _____

Fluids:

Free	
Stage 1 (syrup)	
Stage 2 (custard)	
Stage 3 (pudding)	

Solids:

No Alteration	
B = Thin Purée Dysphagia Diet	
C = Thick Purée	
D = Pre-mashed	
E = Fork Mashable	

ILIG	
PEG	
NG	
NBM	
NJ	

Initials: _____ Date: _____



Kapitex Healthcare Ltd,
Unit 1, Erlvan Park, Sandbeck Way,
Wetherby, West Yorkshire LS22 7DN, UK
Tel: 01937 580211 - Fax: 01937 580796
Email: info@kapitex.com

www.kapitex.com

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Kapitex Healthcare Ltd
FREEPOST LS2604
Kapitex House
1 Sandbeck Way
Wetherby
West Yorkshire
LS22 7GH

EoE Tracheostomy Emergency Card

NHS
East of England Trauma Network

This person breathes through a
Tracheostomy Tube
and should have an emergency safety box/bag with them

Emergency card
Please turn card over for emergency advice

My name is _____

Address _____

Date of Birth: DD / MM / YYYY _____
NHS Number: / / _____

Emergency contact _____

Tel: _____

Reason for Tracheostomy _____

Tracheostomy since _____

Tube type and size _____

Cuffed Uncuffed
 Fenestrated Subglottic port

Inner tube
 Removed by pulling
 Removed by twisting anti-clockwise
Please delete option that does not apply in algorithm overleaf.

Method of communication _____

Allergies _____

Contact details
Hospital team _____
Tel: _____

GP _____
Tel: _____

Community team _____
Tel: _____

Other _____
Tel: _____

Person completing card
Ensure appropriate airway box is ticked in paramedic section overleaf
Name: _____
Signature: _____
Designation: _____
Date: DD / MM / YYYY _____
Feedback on card: add-traeoccn@nhs.net

Emergency acronym

D DISPLACEMENT
O OBSTRUCTION
P PNEUMONIA PNEUMOTHORAX
E EMERGENCY BOX EQUIPMENT FAULT

Please turn over for emergency advice

Call for help – 999 and state the person is a tracheostomy patient

Remove speaking valve or cap on the front of the tube (examples below)

Take out inner tube by twisting anti-clockwise or pulling – is it clear or full of secretions? – if blocked, leave out or put clean inner tube in if available from tracheostomy safety box

Is the person breathing?
Check mouth, nose and tracheostomy tube for signs of breathing

No **Yes**

Commence chest compressions if no signs of life **Apply oxygen to face and tracheostomy if available until help arrives**

And Continue chest compressions whilst a helper performs the following if possible

Take 10 ml syringe from tracheostomy safety box and suck out air or secretions from any visible tube attached to tracheostomy. Check inner tube is clear again as above.

Thicker tube first
There may be 1, 2 or no tubes

Is the person now able to breathe?

No **Yes**

Commence /continue chest compressions until help arrives **Apply oxygen (as above)**

Paramedic Information

Can you pass a suction catheter?
Perform suction if possible.

Is the person now able to breathe?
If not, is the person known to have a patent upper airway? Yes No

<p>Patent upper airway</p> <p>Ensure cuff deflated.</p> <p>Cover tracheostomy tube opening and continue CPR, ventilating via mouth/nose.</p> <p>If not possible, remove tracheostomy tube and continue as for blocked upper airway.</p>	<p>Obstructed upper airway</p> <p>Remove tracheostomy tube and replace with same size or size smaller tracheostomy tube from safety box, inflate cuff (if present) using approx 9–10mls air and continue CPR, ventilating via this route. A size 6.0 ETT can also be used in neck hole if preferred. Or if unable to insert tube use paediatric facemask over neck hole.</p>
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With special thanks to Erica Everitt, Tracheostomy Specialist Practitioner at Norfolk & Norwich Hospital for the concept.
NHS 2016/17 (Version 2) © East of England Trauma and Critical Care Operational Delivery Networks 2017

NHS East of England Critical Care Operational Delivery Network

Still in development by EoE Tracheostomy Working Group

Levels of nursing care and supervision for tracheostomy patients in rehabilitation and long term care settings

Background

Specialist (Levels 1 and 2) rehabilitation services and specialist nursing homes cater for a wide range of patients with complex neurological disability, including patients on the following pathways:

- hyper-acute rehabilitation recently out of ITU or HDU care
- restorative rehabilitation for patients recovering from catastrophic brain injury and other complex neurological illness/injury
- disability management and neuro-palliative in preparation for discharge to long term nursing home care
- end of life care for dying patients with complex neurological disability, including elective withdrawal of clinically assisted nutrition and hydration following the relevant approvals from the Court of Protection.

These services are taking an ever-increasing number of patients who have either temporary or long-term tracheostomy. Tracheostomy nursing care needs to be provided at an appropriate level and in the context of their other needs. This paper sets out the principles for their care and supervision.

Issues

- Patients' needs are constantly changing and need to be individually assessed on a regular basis to provide optimal levels of nursing care.
- Tracheostomy management is just one aspect of their care that determines the level of nursing inputs required.
- Equipment such as oxygen sats monitors may or may not be helpful in this group. Many patients are restless and constantly moving, or prone to excessive sweating to autonomic 'storming' which may make it difficult to keep the monitors on reliably leading to frequent false alarms.
- The increasing numbers of tracheostomy patients coming through to these services means that these patients sometimes need to be managed in areas that were previously designated as lower dependency beds.
- The increasingly stringent requirements for infection control mean that patients may sometimes need to be nursed in isolation in a single room for periods of their stay, which may impact of their needs for nursing care and supervision.
- Balanced against the ever-changing needs of the ward caseload are the practical issues of recruiting and retaining a sufficient number of trachy-trained nursing staff. As with all services, there are times when the nursing numbers are unexpectedly low and the nursing staff need to be deployed as best as possible to manage the needs of all patients.

It is not possible to draw up a single policy on tracheostomy care and supervision requirements because patients' needs vary so widely. Although many Trusts have policies in place for the care of patients with tracheostomies, these tend largely focused on the needs of patients with acute temporary tracheostomy, and are not always appropriate to rehabilitation and long term care settings.

In rehabilitation our principal aim is to restore normality so far as possible, and to engage patients in activities that are meaningful to them. In long-term care settings the priorities for intervention shift from preserving life expectancy to maximising the quality of life for the time remaining to the patient. In both of these situations it is appropriate to explore activities such as trips out in the community, where the patient may not have instant access to full tracheostomy care.

As in all other aspects of care, it is appropriate to make a risk assessment based on the balance of benefits and harms, including the likelihood and seriousness of the risks involved for that particular patient.

As the patient approaches discharge in a rehabilitation setting it is appropriate to mimic the levels of care they will receive in the community, to evaluate the safety and appropriateness of the proposed care package.

Levels of Tracheostomy support

The following five broad levels of nursing support for tracheostomy may be required at different times during the patient's admission to the RHRU:

Grade	Description of condition	Nursing requirement
A	Unstable airway requiring very frequent trachy intervention (eg ½ –1 hourly) with frequent periods of de-saturation and/or mucous plugging.	1:1 nursing care from a trachy trained nurse.
B	Complex tracheostomy requiring frequent trachy intervention (eg 1–2 hourly) including regular deep suction. Trachy needs may be unpredictable.	Cohort nursing in 4 bed bay, usually in a bay with 1–2 trachy-trained nurses constantly in the vicinity. If such patients are managed in a single room they may require 1:1 nursing.
C	Standard trachy requiring intervention usually every 2–4 hours.	Usually cohort nursing. If managed in a single room need checking at least hourly, and oxygen sats monitor on when left alone, if saturations are unstable.
D	Simple stable trachy requiring occasional intervention only, eg. suction or change of inner tube just 1–2 times a day.	May be managed in a lower dependency area of the unit with or without an oxygen sats monitor at times when there is no nurse within the immediate vicinity, depending on individual requirements and level of risk.
E	Ceiling of care (including planned end-of-life care) mean that trachy interventions may be limited as part of an overall planned withdrawal of interventions to allow a dignified death.	Patients are usually managed in a single room. They are likely to have high levels of nursing intervention for their other requirements (ie. symptom control and palliative care) but the tracheostomy itself is not the priority for nursing management.

Recommendations for good practice

The CRG for Specialised Rehabilitation recognises that, due to constraints in funding and staff availability, the following recommendations are aspirations at the current time. However they represent good practice that providers and commissioners should work towards.

1	The level of care and supervision provided should take account of the above requirements, but also patients' other needs to support and supervision.
2	Patients should have their level of tracheostomy care requirement documented on a regular basis, including recording of tracheostomy grade according to the above requirements
3	If the stated level of care cannot be offered, the reasons for this should be documented and steps in place to remedy the situation or to minimise risk should be recorded.
4	In the event that external requirements (eg. infection control measures) are placing the patient at risk in terms of the level of nursing supervision than can be provided, the issue should be brought to the attention of the management team through the appropriate mechanism, eg. Datix reporting.

Tracheostomy care monitoring sheet

Patient identification	Name:
	Hospital number: Date of assessment: DD / MM / YYYY

Tracheostomy details	<input type="checkbox"/> Simple <input type="checkbox"/> Complex
-----------------------------	--

Type of tracheostomy	<input type="checkbox"/> Cuffed	<input type="checkbox"/> Fenestrated	Size:	Make:
	<input type="checkbox"/> Un-cuffed	<input type="checkbox"/> Non-fenestrated		

Status	<input type="checkbox"/> Permanent	Details of weaning programme:
	<input type="checkbox"/> Static	
	<input type="checkbox"/> Active weaning	

Intervention	Check frequency: <input type="checkbox"/> < ½ hr <input type="checkbox"/> ½–1 hr <input type="checkbox"/> 1–2 hr <input type="checkbox"/> 2–4 hrs <input type="checkbox"/> >4 hrs
	Suction frequency: Superficial suction Deep suction

Assisted ventilation	<input type="checkbox"/> Yes <input type="checkbox"/> No Type and details:
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Endoscopy findings	Granulation tissue: <input type="checkbox"/> Yes <input type="checkbox"/> No	Details:
	Stenosis: <input type="checkbox"/> Yes <input type="checkbox"/> No	
	Vocal cords: <input type="checkbox"/> Open <input type="checkbox"/> Closed	

Rehabilitation Complexity Scale – care nursing and medical scales

RCS-E v 13	C: /4	N: /4	M: /4
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or RCS-SNH	C: /3	N: /3	M: /3
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Northwick Park Dependency Scale item scores:

Trache management	0 1 3 5
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Safety awareness	0 1 2 5	Able to summon help: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Grade	Description of condition	Nursing requirement	Delivered
A	Unstable airway very frequent trachy intervention +/- de-saturation / mucous plugging	<input type="checkbox"/> 1:1 nursing care <input type="checkbox"/> Cohort nursing 1:2 <input type="checkbox"/> Trachy-trained nurse	<input type="checkbox"/> Yes <input type="checkbox"/> No – if no, why:
B	Complex tracheostomy frequent trachy intervention including regular deep suction. Trachy needs may be unpredictable.	<input type="checkbox"/> Cohort nursing in 4 bed bay with trachy-trained nurse in vicinity <input type="checkbox"/> Single bay with 1:1 nurse / HCA <input type="checkbox"/> Single bay + frequent checks	<input type="checkbox"/> Yes <input type="checkbox"/> No – if no, why:
C	Standard trachy requiring intervention usually every 2–4 hours	<input type="checkbox"/> Cohort nursing in 4 bed bay <input type="checkbox"/> Single bay + frequent checks <input type="checkbox"/> O ₂ saturation monitor	<input type="checkbox"/> Yes <input type="checkbox"/> No – if no, why:
D	Simple stable trachy requiring occasional intervention only	<input type="checkbox"/> Check frequency: <input type="checkbox"/> O ₂ saturation monitor if alone	<input type="checkbox"/> Yes <input type="checkbox"/> No – if no, why:
E	Ceiling of care	<input type="checkbox"/> Check frequency:	<input type="checkbox"/> Yes <input type="checkbox"/> No – if no, why:

Action required:

Scoring details for RCS and NPDS items

Care nursing and medical needs may be recorded using with the RCSE version 13 (in rehabilitation settings) or the RCS SNH (in nursing home or slow-stream rehabilitation settings)

Rehabilitation Complexity Scale

RCSE-13		RCS-SNH
Basic care and support needs		
C0	Largely independent in basic care activities	C0
C1	Requires help from 1 person for most basic care needs	C1
C2	Requires help from 2 people for most basic care needs	C2
C3	Requires help from ≥3 people for basic care needs	C3
C4	Requires constant 1:1 supervision – for safety or behavioural management	
Skilled nursing needs		
N3	Requires specialist nursing care (eg. for tracheostomy, behavioural management etc)	N3
N4	Requires high dependency specialist nursing (eg. medically unstable, very frequent monitoring/ intervention by a qualified nurse – at least hourly)	
Medical needs		
M0	No active medical intervention (could be managed by GP on basis of occasional visits)	M0
M1	Basic investigation / monitoring / treatment (requiring non-acute hospital care)	M1
M2	Specialist medical intervention for diagnosis or management	M2
M3	Potentially unstable medical / psychiatric condition	M3
M4	Acute medical / surgical problem – requiring emergency out-of-hours intervention	

Northwick Park Dependency Scale

Tracheostomy management	
0	No tracheostomy in situ / or self management
1	Maintenance tracheostomy intervention, eg. changing inner tube, minimal suction <2 day
2	Active tracheostomy intervention, eg. weaning, frequent suction 2–6 times a day
3	Maximal tracheostomy intervention, eg. suction >6/ day or 2 people or v close monitoring
Safety awareness	
0	Fully orientated, aware of personal safety
1	Safe to be left for more than 2 hrs + could summon help in emergency
2	Could not be left for 2 hrs + could not summon help in an emergency
3	Requires at least hourly checks or constant supervision

References

Executive summary

NTSP National Tracheostomy Safety Project: www.tracheostomy.org.uk

On the Right Trach? National Confidential Enquiry into Patient Outcome and Death 2014

B. A. McGrath, L. Bates, D. Atkinson, J. A. Moore. *Multidisciplinary guidelines for the management of tracheostomy and laryngectomy airway emergencies.*

Anaesthesia 2012, 67, pp1025–1041

Section 1 • Introduction

Young, H, McGlashan K, Mahmood A. *Review of Adult Rehabilitation Services in the east of England*, 2016

Bowers, B, Scase, C. *Tracheostomy: facilitating successful discharge from hospital to home*, British Journal of Nursing 2007, Vol 16, No 8

Fewings, J. *Tracheostomy Care Guidelines Discharge Process*, Plymouth Hospitals NHS Trust and Plymouth Community Healthcare 2012

Section 2 • Defining community

On the Right Trach? National Confidential Enquiry into Patient Outcome and Death 2014

Section 3 • Commissioning community tracheostomy care

Specialised Neurorehabilitation Service Standards 7 30 4 2015-PCATV2-forweb-4-5-16.doc, updated 30.4.2015

East of England Directory of Rehabilitation Services: Published by the East of England Trauma Network
www.eotraumanetwork.nhs.uk

Section 4 • Pre-transfer preparation

UK Rehabilitation Outcomes Framework (UKROC) www.ukroc.org

Levels of nursing care and supervision for Trachy patients in rehabilitation and long term care settings: BSRM, October 2015

Specialised Neurorehabilitation Service Standards 7 30 4 2015-PCATV2-forweb-4-5-16.doc, updated 30.4.2015

Section 9 • Living with a tracheostomy in the community

Scase, C. *'Living With A Tracheostomy'* Patient information leaflet. Addenbrooke's Hospital, Cambridge University NHS Foundation Trust, 2004

Specialist Nursing Home Care for People with Complex Neurological Disability: Guidance to Best Practice British Society of Rehabilitation Medicine 2013

Resources



Transfer / Discharge checklist

for a patient with a tracheostomy

To be completed by the discharging tracheostomy lead.

Patient details	Name:
	NHS number: Date: D D / M M / Y Y Y Y
	Use hospital ID label if you prefer.

Team contact details	
District nurse:	Tel:
Tracheostomy lead:	Tel:
Ward:	Tel:

1. Transport	
1	Is ambulance needed? Ensure airway crew booked <input type="checkbox"/> Yes <input type="checkbox"/> No

2. Information handover/communication	
2	Is the patient suitable for travel? <input type="checkbox"/> Yes <input type="checkbox"/> No
3	Emergency Services have been pre-alerted that a patient with a tracheostomy is being discharged into the community. Register patient at: www.emergencysms.org.uk <input type="checkbox"/> Yes <input type="checkbox"/> No
4	Community Nurse referral completed and attached. Community Nursing Team have been advised of the consumable equipment they need to supply. Tel/Fax: <input type="checkbox"/> Yes <input type="checkbox"/> No
5	Prescription for tracheostomy supplies completed. <input type="checkbox"/> Yes <input type="checkbox"/> No
6	Completed Trachi-Pass Obtain free of charge from Kapitex Healthcare Ltd – Tel: 01937 580211 <input type="checkbox"/> Yes <input type="checkbox"/> No
7	Patient information leaflet handed to the patient/carer. <input type="checkbox"/> Yes <input type="checkbox"/> No
8	Supplies leaflet handed to the patient/carer. <input type="checkbox"/> Yes <input type="checkbox"/> No

- 9** Tracheostomy Emergency Box containing:
- a spare tracheostomy tube the same size and type as the one in situ
 - a spare tracheostomy tube a size smaller than the one in situ
 - a spare inner cannula
 - tracheostomy securing tapes / ties / collar
 - scissors
 - tracheostomy dressing
 - two sachets lubricating gel
 - gloves (*for suctioning*)
 - spare humidification device (*eg. HME / stoma bib*)
 - inner tube cleaning sponge/brush
 - Trachi-Pass
- Optional:**
- 10ml syringe
 - bag valve mask
 - cuff pressure manometer
 - cuffed tube – if an uncuffed tube is in situ: a spare cuffed tracheostomy tube a size smaller than the one in situ (for emergency oxygenation and ventilation)
 - other tracheostomy equipment advised/required:

10 Portable suction unit(s) have checked it is working and ready for use on transfer.
 Service check date: **D D / M M / Y Y Y Y** Yes No
 Tel:

11 Ensure suction equipment is being transferred with the patient or that the receiving care facility has their suction equipment set up and have checked it is working. Yes No

12 Nebuliser machine – maintenance date: **D D / M M / Y Y Y Y** Yes No
 Tel:

13 A 14 day supply of tracheostomy consumables: Yes No

- Suction catheters (*size fg*)
- Suction tubing (*ensure it is compatible with patients suction machine*)
- Tracheostomy dressings
- Tracheostomy securing tapes/ties/collars
- Sterile gauze swabs
- Sodium Chloride 0.9% ampoules/sachets (*for cleaning stoma*)
- Dressing packs
- HMEs / stoma bibs
- Tracheostomy oxygen mask
- Nebuliser tubing and reservoir/chamber
- Brushes/swabs
- Spare speaking valve
- Non-sterile gloves (*correct size for patient / carer*)
- Shower guard

Completed by:
Name (PRINT): **Signature:**
Designation: **Date:** **D D / M M / Y Y Y Y**

- Original given to patient
- Copy provided for medical/hospital notes
- Copy given to Discharge nurse care team
- Copy sent to the GP

Standard tracheostomy equipment and consumables

Item	Funding agency	Comment
Equipment		
Portable suction unit with internal battery	CHC / SNH / *acute hospital	*Some acute hospitals supply this equipment
Portable nebulizer machine	CHC / SNH / *acute hospital	*Some acute hospitals supply this equipment
Cuff pressure manometer	CHC / SNH	–
Consumables		
Tracheostomy safety box and contents	Acute Trust	Replenishment of contents is the responsibility of the new provider
Tracheostomy tubes	NHS funded	CHC / SNH
Inner tubes	NHS funded	CHC / SNH
Suction catheters	NHS funded	CHC / SNH
Suction tubing	NHS funded	CHC / SNH
Yankeur suction tubing	NHS funded	CHC / SNH
Bottled sterile water	NHS funded	CHC / SNH
500ml CSSD bowel	NHS funded	CHC / SNH
Suction machine liners	NHS funded	CHC / SNH
Suction machine filters	NHS funded	CHC / SNH
Tracheostomy masks	NHS funded	CHC / SNH
Elephant tubing	NHS funded	CHC / SNH
Catheter mount	NHS funded	CHC / SNH
Nebulizer reservoir and tubing	NHS funded	CHC / SNH
Non latex gloves	NHS funded	CHC / SNH
Face masks	NHS funded	CHC / SNH
Goggles	NHS funded	CHC / SNH
10ml syringes	NHS funded	CHC / SNH
Speaking valve	NHS funded / GP prescription	CHC / SNH
Saline for nebulization	GP prescription	–
Barrier spray/solution	GP prescription	–
Shower protector	GP prescription	–
Inner cannula cleaning swabs	GP prescription	–
Trachy collars	GP prescription	–
Trachy dressings	GP prescription	–
Heat moisture exchangers	GP prescription	–
Buchanan bibs	GP prescription	–
Humidification bibs	GP prescription	–

Tracheostomy care and observation chart

Patient name:		Time (24hr clock)																								
Date of birth: DD / MM / YYYY		Date of observations:																								
NHS number:		DD / MM / YYYY																								
Safety checks per shift	Tracheostomy Emergency Box (with correct contents) present (Y/N)																									
	Suction equipment checked and is working (Y/N)																									
	Visual check of tube position and tracheostomy tapes are secure (Y/N)																									
Inner tube checked and cleaned (Y/N) (2–4 hourly)																										
Tracheostomy tapes changed (Y/N) (daily)																										
Tracheostomy dressing changed (Y/N) (daily)																										
Cuff status (see key)																										
Cuff pressure (cmH ₂ O) (measure 12 hourly or if cuff re-inflated)																										
Subglottic port (mls aspirated) (aspirate 2–4 hourly)																										
Speaking valve in situ (Y/N)																										
Oxygen therapy <small>(if applicable)</small>	Oxygen humidified (Y/N)																									
	Oxygen % or litres per minute administered																									
	Heated circuit temperature (°C)																									
Humidification device in situ (see key)																										
Oxygen saturations (%)																										
Respiratory rate per minute																										
Suction	Suction required? (Y/N)																									
	Secretion quantity? (see key)																									
	Secretion colour? (see key)																									
	Secretion consistency? (see key)																									
Nurse/Support Worker initials:																										
Key for suctioning Quantity: No sputum = (-) Small (1 catheter) = (+) Moderate (2 catheters) = (++) Large (3–5 catheters) = (+++)				Colour: Clear = (C) White / Creamy = (W) Yellow / Green = (YG) Bloody = (B)				Consistency: Mucoïd = (M) Frothy = (F) Sticky / Thick = (ST) Plugs = (P)				Key for type of humidification device HME device (eg. Swedish Nose™, TrachPhone™) = (H) Stoma bib (eg. Buchanan Bib) = (SB)				Key for cuff status Cuff inflated = (CI) Cuff deflated = (CD)										
								Key for other symbols Yes = (Y) N = (N) Not applicable = (NA) Patient declined = (R)																		

Community tracheostomy daily care guidelines

Patient details

Name:

NHS number: Date: D D / M M / Y Y Y Y

Tracheostomy tube information

Size: Make/brand:

- | | | | |
|--------------------------------------|--|--|--|
| <input type="checkbox"/> Cuffed | <input type="checkbox"/> Uncuffed | <input type="checkbox"/> Inner tube | <input type="checkbox"/> No inner tube |
| <input type="checkbox"/> Fenestrated | <input type="checkbox"/> Unfenestrated | Subglottic port <input type="checkbox"/> Yes <input type="checkbox"/> No | |

NHS Supply Chain catalogue code:

Care of the inner cannula (inner tube)

It is important to keep the inner cannula (sometimes called the inner tube) clean and free from secretions so that it does not become blocked.

The inner cannula should be routinely cleaned 2–4 hourly. However, the frequency may need to be increased if more secretions are being produced, or the secretions are thick and sticky (eg. due to chest infection).

If breathing is difficult, the inner cannula should be checked and cleaned immediately to ensure it is not blocked with secretions.

Cleaning the inner cannula procedure:

- 1) Wash your hands.
- 2) Remove any external tracheostomy aids (eg. TrachPhone™, stoma bib, speaking valve).
- 3) With one hand to support the flange of the tracheostomy tube, and with the other hand remove the inner cannula in a downward curved motion.
- 4) Insert the spare clean inner cannula in an upward curved motion. Make sure the inner tube has clicked into position.
- 5) Reapply any external tracheostomy aids.
- 6) Clean the inner tube with water and use a tracheostomy cleaning swab/brush if necessary until the inner tube is clear of secretions.
- 7) Gently shake any excess water off the inner cannula.
- 8) Ensure the spare inner cannula is stored in a clean dry lidded container.

Suctioning

Suctioning should be done only when needed to help clear secretions from the airway when they cannot be coughed up.

If secretions are thick, green, and/or smelly (signs of infection), and are difficult to clear then please contact the GP or Community Nursing Team.

Suctioning procedure:

- 1) Wash your hands and put on any personal protective equipment (eg. non-sterile gloves) if required.
If the tracheostomy tube is fenestrated then ensure the un-fenestrated inner cannula is in place prior to suctioning.
- 2) Assemble the suction machine.
- 3) Turn on the suction machine, and ensure the suction pressure is set at the correct level.
- 4) Connect the suction catheter to the suction tubing.
- 5) Using a 'non touch' technique insert the suction catheter to the correct depth (as stated in the Trachi-Pass).
If secretions are difficult to clear it may be necessary to insert the suction catheter further than normal.
If resistance is felt withdraw the suction catheter approximately 1cm / ½ inch before applying suction to prevent damaging the airway.
- 6) Occlude the suction port with your thumb to apply suction, and steadily withdraw the suction catheter.
Suctioning should take no longer than 10 seconds.
- 7) Dispose of the suction catheter. If further suction is needed attach a new suction catheter and repeat procedure.
- 8) Flush the suction tubing with water.
- 9) Leave the suction machine ready for use.

Humidification

Normally air enters the lungs through the nose and mouth. The nose filters, warms and moistens the air that is inhaled (breathed in) which prevents unwanted particles from entering the lungs, and keeps secretions thin so they are easier to cough up, which helps to prevent infection. A tracheostomy bypasses this natural function so inhaled air must be artificially filtered, warmed and moistened to prevent secretions from becoming thick and sticky and difficult to cough up and/or remove with suctioning.

Heat moisture exchange (HME) devices and stoma bibs

Heat moisture exchange devices (eg. TrachPhone™ and Swedish Nose™) and stoma bibs (eg. Buchanan Bib™) are used to artificially filter, warm and moisten the air that is inhaled through the tracheostomy tube. Always use the device that has been recommended.

The heat moisture exchange device (eg. TrachPhone™ and Swedish Nose™) should be changed daily. However, if it becomes clogged with secretions it will need to be changed immediately.

Stoma bibs (eg. Buchanan Bib™) should be changed daily. The bibs can be hand washed using warm water and a mild detergent. Stoma bibs can be reused – see manufacturer's guidelines for details.

Saline nebulisers

Regular 0.9% sodium chloride nebulisers may have been prescribed 4–6 hourly. If secretions are thick and sticky consult your GP or Tracheostomy Nurse as the frequency of the nebulisers may need to be increased to 2–4 hourly.

Nebuliser procedure:

- 1) Assemble the nebuliser machine.
- 2) Dispense the prescribed amount of 0.9% sodium chloride into the nebuliser chamber and then attach the nebuliser chamber to the tracheostomy mask.
- 3) Secure the tracheostomy mask over the tracheostomy tube.
- 4) Turn on the machine. It will take approximately 10–15 minutes to administer the nebuliser.
- 5) When finished, turn the machine off, remove the mask, and dry both the nebuliser chamber and mask with kitchen roll.

Tracheostomy stoma care and dressings

It is important to keep the skin around the tracheostomy stoma clean and dry to prevent soreness and infection. The skin around the tracheostomy stoma should be routinely cleaned and the dressing changed once each day. However, if the dressing is wet and soiled it will need to be changed more frequently.

Changing the tracheostomy dressing – this is a TWO person procedure:

- 1) Wash your hands.
- 2) Get all your equipment ready (tracheostomy dressing, cleaning swabs, 0.9% normal saline sachets) on a clean table.
- 3) Put on non-sterile gloves.
- 4) One person then holds the end of the tracheostomy tube gently but firmly to prevent it from moving, while the second person completes steps 5–8.
- 5) Remove the old dressing and clean around the tracheostomy stoma site using 0.9% normal saline and gauze.
- 6) Observe the stoma site for signs of redness, sores, or ulceration (if any of these are present contact your GP or Tracheostomy Nurse or Community Nurse).
- 7) Apply a film barrier dressing (eg. Cavilon™) around the stoma site if required.
- 8) Apply the clean tracheostomy dressing. Once the clean dressing is in place the first person can let go of the tracheostomy tube.
- 9) Dispose of the old dressing.

Tracheostomy tapes / collar

The tracheostomy tapes / collar are used to keep the tracheostomy tube in place and prevent it from becoming dislodged or falling out. The tracheostomy tapes / collar should be changed routinely once each day. However, if the tapes are wet, soiled or are too loose or tight, then they should be changed immediately

Changing the tracheostomy tapes / collar – this is a TWO person procedure:

- 1) Wash your hands.
- 2) Get all your equipment ready (tracheostomy tapes / collar) on a clean table.
- 3) Put on non-sterile gloves.
- 4) One person then holds the end of the tracheostomy tube gently but firmly to prevent it from moving, while the second person completes steps 5–8.
- 5) The second person carefully unties and removes the tracheostomy tapes / collar.
- 6) Check the skin where the tracheostomy tapes / collar has been for signs of redness or soreness (if any of these are present contact you GP or Tracheostomy Nurse or Community Nurse).
- 7) Apply the new tracheostomy tapes / collar and secure carefully. Ensure the tapes are not too loose or tight – one or two fingers should fit comfortably between the neck and the tapes / collar.
- 8) Once the tapes are in place the first person can let go of the tracheostomy tube.
- 9) Dispose of the old tapes.

Cuff pressure monitoring

Information applicable Yes No

Some tracheostomy tubes have a cuff that can be inflated to create an airtight seal between the tracheostomy tube and the wall of the trachea (windpipe) to prevent air from escaping through the mouth and nose and/or to prevent oral secretions from being accidentally inhaled into the lungs

When the cuff is inflated, it presses against the walls of the trachea (windpipe) and it may cause damage. To help prevent injury to the wall of the trachea it is important to ensure the cuff is not over-inflated by monitoring and maintaining the correct pressure within the cuff.

The cuff pressure should be checked routinely every 12 hours or whenever the cuff is re-inflated.

The pressure should be maintained within the **green** safe zone on the hand held pressure manometer. Always inflate a fully deflated cuff using a sterile 10ml syringe. **Do not** attempt to measure the cuff pressure if the person with the tracheostomy tube is coughing, as this will give an inaccurate reading.

Measuring cuff pressure procedure:

- 1) Wash your hands.
- 2) Attach the air-inlet valve of the tracheostomy tube to the pressure manometer.
- 3) Read the pressure within the cuff by looking at the dial of the manometer.
- 4) If the manometer indicates that there is too much air in the cuff, gently press the button on the manometer to release some of the air.
or
If the manometer indicates that there is not enough air in the cuff use a 10ml syringe to insert more air. Then recheck the cuff pressure.
- 5) Remove the hand pressure manometer from the tracheostomy tube.

Care of a tracheostomy subglottic line

Information applicable Yes No

Some cuffed tracheostomy tubes have a subglottic port and line, this can be used to remove secretions that have accumulated above the inflated cuff, to prevent them from entering the lungs and causing an infection. If the tracheostomy tube has a subglottic port, this should be routinely aspirated **2–4 hourly and before deflating the cuff using a sterile 10ml syringe.**

Aspirating the subglottic port procedure:

- 1) Wash your hands.
- 2) Attach a sterile 10ml syringe to the subglottic port.
- 3) Slowly withdraw the plunger of the syringe until no further secretions are obtained.
- 4) Remove the 10ml syringe from the subglottic port and dispose of it.

Safety

It is important that the following equipment and information is with you at all times in case of an emergency. It is also important that you check that the equipment on a monthly basis to ensure that it has not expired .

✓ **Emergency Tracheostomy Box containing:**

- a spare tracheostomy tube the same size and type as the one you have in place
- a spare tracheostomy tube a size smaller than the one you have in place
- a spare inner cannula
- tracheostomy securing tapes / ties / collar
- scissors
- tracheostomy dressing
- two sachets lubricating gel
- gloves (for suctioning)
- a spare humidification device (eg. TrachPhone™ / Swedish Nose™ / stoma bib)
- inner tube cleaning sponge/brush

optional:

- one 10ml syringe
- bag valve mask
- cuff pressure manometer
- if an uncuffed tube is in situ: a spare cuffed tracheostomy tube a size smaller than the one in situ (for emergency oxygenation and ventilation)
- other equipment advised:

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✓ **Portable suction unit and suction catheters.** Make sure the suction unit is fully charged and working at all times.

✓ **Trachi-Pass.**

Tracheostomy equipment and supplies

Tracheostomy supplies on prescription:

Prior to being discharged from hospital a prescription account will have been set up for you, and deliveries will be made as required (usually monthly) to your place of residence. Your GP will have been contacted and they will be required to authorise the initial and repeat prescriptions.

Your tracheostomy prescription supplier

Company name:

Telephone:

Fax:

Email:

When you require supplies, contact your supplier (details given above) and they will liaise with your GP for a repeat prescription. **Allow 7–10 working days for this to happen.**

The details of the tracheostomy supplies prescription that has been set up for you:

Tracheostomy supplies prescription

Item	Order number	Quantity
Tracheostomy tapes / collar Name of product used:		Pack of
Tracheostomy dressing Name of product used:		Pack of
Gauze swabs Name of product used:		Pack of
Sterile dressing packs Name of product used:		Pack of
0.9% sodium chloride sachets (for cleaning tracheostomy stoma) Name of product used:		Pack of
Non-sting barrier film Name of product used:		Pack of
Non-sterile gloves (please circle prescribed size): Small Medium Large	Box of Box of Box of
Shower protector Name of product used:		Pack of
Inner tube cleaning sponge / brushes Name of product used:		Pack of
Humidification device(s): Name of product used: Name of product used:	Pack of Pack of
Lubricating gel Name of product used:		Pack of

Tracheostomy supplies *not* on prescription:

Some of the equipment that is required to manage the tracheostomy is not available on prescription.
The Community Nursing Team will supply the following tracheostomy equipment from NHS Supply Chain:

Tracheostomy equipment from NHS Supply Chainwww.supplychain.nhs.uk

Item	Catalogue code	Quantity	Item required?
Suction tubing		Pack of	<input type="checkbox"/> Yes <input type="checkbox"/> No
Suction catheters			
Size 8	Box of	<input type="checkbox"/> Yes <input type="checkbox"/> No
Size 10	Box of	<input type="checkbox"/> Yes <input type="checkbox"/> No
Size 12	Box of	<input type="checkbox"/> Yes <input type="checkbox"/> No
Yankaeur		Pack of	<input type="checkbox"/> Yes <input type="checkbox"/> No
Tracheostomy mask		Pack of	<input type="checkbox"/> Yes <input type="checkbox"/> No
Nebuliser chamber 7.5ml		Pack of	<input type="checkbox"/> Yes <input type="checkbox"/> No
Nebuliser tubing		Pack of	<input type="checkbox"/> Yes <input type="checkbox"/> No
One-way speaking valve			
Type:		Pack of	<input type="checkbox"/> Yes <input type="checkbox"/> No
10ml syringes		Pack of	<input type="checkbox"/> Yes <input type="checkbox"/> No
Catheter mount		Pack of	<input type="checkbox"/> Yes <input type="checkbox"/> No
Eye protection (safety glasses)			
Replacement lenses	Pack of	<input type="checkbox"/> Yes <input type="checkbox"/> No
Replacement frames	Pack of	<input type="checkbox"/> Yes <input type="checkbox"/> No
Cuff pressure manometer		Pack of	<input type="checkbox"/> Yes <input type="checkbox"/> No
Bag valve mask		Pack of	<input type="checkbox"/> Yes <input type="checkbox"/> No

Please speak to the Community Nursing Team, GP or Tracheostomy Specialist Nurse about the ongoing supply of tracheostomy tubes.

Name (PRINT): Signature:

Designation: Date: D D / M M / Y Y Y Y

Keeping safe

It will be necessary for you to carry some essential equipment, supplies and information (see list below) with you **at all times** in order to deal **promptly** with any problems that may occur.

Emergency Tracheostomy Box containing:

- ✓ a spare tracheostomy tube the same size and type as the one you have in place
- ✓ a spare tracheostomy tube a size smaller than the one you have in place
- ✓ spare inner cannula
- ✓ tracheostomy securing tapes / ties / collar
- ✓ scissors
- ✓ tracheostomy dressing
- ✓ two sachets lubricating gel
- ✓ gloves (for suctioning)
- ✓ a spare humidification device (eg. HME / Tracheostomy stoma bib)
- ✓ inner tube cleaning sponge/brush
- ✓ Trachi-Pass
- ✓ other equipment advised (if applicable):

Optional items**

- one 10ml syringe
- bag valve mask
- cuff pressure manometer
- if an uncuffed tube is in situ: a spare cuffed tracheostomy tube a size smaller than the one in situ (for emergency oxygenation and ventilation)
- other equipment advised (if applicable):

✓ Portable suction unit and suction catheters

Make sure the suction unit is fully charged and working, and is accessible at all times.

** These are items are optional and will depend on individual hospital practice and patient needs.

- Always make sure that your tracheostomy tube is firmly held in place using the securing tapes.
- If your tracheostomy tube has an inner cannula, always ensure that you have this in place. Keep it clear of secretions by cleaning it when required and as you have been instructed. **Make sure you always have a spare inner cannula with you.**
- If you have a tracheostomy tube with an inflation cuff, ensure that you maintain and check the cuff pressure as you have been instructed.
- You are advised to let the local electricity board know that you rely on medical equipment which has to be charged electrically. They can place your home on an 'at risk' list. They can also warn you in advance of any planned power cuts and reconnect your electricity supply as a priority.

Useful telephone numbers

In an emergency dial 999

Tracheostomy Specialist Nurse:

District Nurse / Community Nursing Team:

GP:

Suppliers:

**Treatment Hospital
(ENT Department/Ward):**

Other:

Acknowledgment: Produced kindly by the Tracheostomy Nurse Specialists at Cambridge Cambridge University Hospitals NHS Foundation Trust

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Living with a tracheostomy

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Patient and carer information



Acknowledgement: pictures taken from the 'Community Tracheostomy Care Video' (available on YouTube), produced by Laurentiu Huianu and NNUH Medical Illustration Department.

Having a tracheostomy will have some impact on your day-to-day life. However, it is possible with some careful planning to adapt your activities and choices so that you are not unnecessarily restricted. The following practical advice will help you adjust to life at home with a tracheostomy.

Equipment and supplies

- You will be given supplies and equipment to manage your tracheostomy at home. You will need to decide where you will store them. We advise setting aside a place within your home, and to make sure that everyone involved with the care of the tracheostomy knows where they are kept.
- Regularly check your supplies to avoid running out.
- Ensure that your suction units are fully charged, working and accessible.

Avoiding hazards

It is important to be aware of the activities and choices which should be avoided because they can be hazardous to anyone with a tracheostomy. Here are some safety tips and advice:

- Choose clothing with loose-fitting necks and front openings to ensure easy access to the tracheostomy tube.
- It is important to wear the commercial covering(s) that you are provided with to prevent substances or objects accidentally entering the tracheostomy tube (such as sand, dust, or hair during a haircut or shaving).
- Use a water guard covering when taking a shower or bath to protect against water or other toiletries entering the tracheostomy tube.
- Avoid swimming as there is a very high risk of water entering the tracheostomy tube.

- Avoid contact sports, because there is a very high risk of the tracheostomy tube becoming dislodged or falling out.
- Try to avoid substances such as powders or aerosols (including talcum powder and hairspray). If these are inhaled via the tracheostomy tube they can cause airway/ chest damage or infection.
- Try to avoid smoky or polluted places. Particles may enter the tracheostomy tube which can irritate the airway and cause coughing and increased secretion production.
- Try to avoid contact with animals with fine hair. The hair can easily be inhaled via the tracheostomy tube.
- The tracheostomy tube will bypass the filtering and humidifying mechanisms that you have in your nose. This will make you more susceptible to common colds, viruses and influenza. These illnesses may increase the amount of mucus and secretions that you produce from your tracheostomy tube resulting in the need for more suctioning. Please discuss the possibility of a flu or pneumovax jab with your GP.
- Changes in temperature or climate (such as cold, dry atmospheres or central heating) can irritate the airways and dry out secretions. This makes it more difficult to cough and clear these secretions effectively. You may need to use a different form of humidification or use nebulisers to compensate for this. Talk to your Tracheostomy Specialist Nurse, Community Nursing Team or GP for advice.

Community tracheostomy care video

This video has been produced by the East of England Trauma Network in partnership with the East of England Critical Care Network as part of a project aimed at enhancing the community care pathway of patients with a tracheostomy.

The idea of living with a tracheostomy in the community can be daunting for the person affected, their families and the people involved in their care. This short video, which is divided into six chapters, is aimed at providing information for all three groups and seeks to improve knowledge and confidence in approaching this situation. The chapters include a basic description of a tracheostomy, planning for discharge, what to keep in the Safety Box, equipment needed at home and communication issues following a tracheostomy. The final chapter shows a discussion at home with Mike, who has had his tracheostomy for two years, in which he talks positively about his experience of life with a tracheostomy.

Available on YouTube at www.youtube.com/watch?v=O16SDHM4KsE

