

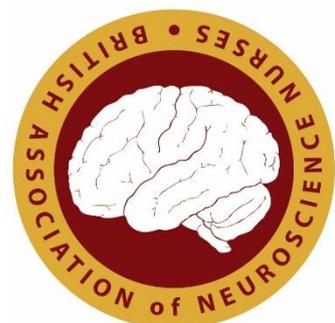
Benchmark No. 2

Tracheostomy Care

(2nd Edition)



**British Association of
Neuroscience Nurses**



Neuroscience Safe Staffing Benchmark Statements

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History

The Neuroscience Nursing Benchmarking Group (NNBG) was established in the 1990`s as a result of increasing concerns over inconsistencies in practices as part of a subsidiary of BANN. The group aims to improve on the quality of care by comparing and sharing practice with each other, and set explicit standards for comparison of current practice against the ideal standard. The group is committed to searching for the best evidence related to specific areas of neuroscience practice. Membership of the group consists of representatives from neuroscience units within the UK and Ireland, together with educational colleagues from both the NHS/HSC and Higher Educational Institutes. The group is further subdivided into regions and the first edition of this benchmark was developed by the North West regional group of the NNBG in 2006.

In 2016, the NNBG consolidated back into BANN and further information about NNBG can be found on the BANN website www.BANN.org.uk . This second edition of the benchmark has been developed by the restructured NNBG working group under BANN.

BANN would like to acknowledge the leadership and significant contribution made by the NNBG, and all its contributors, to neuroscience nursing over the years.

Benchmark No. 2 Tracheostomy Care

KEY POINTS

- Tracheostomy care must only be undertaken by staff that have been assessed as competent in accordance to local policy.
- Following the assessment an individualised care plan will be implemented and evaluated specific to all aspects of care relating to the patient's individual tracheostomy needs.
- Care needs must be reviewed at least 2 hourly or according to the patients' clinical needs.
- Essential equipment must be present at the bedside with documented evidence that the check is undertaken at least once per shift or according to local protocols.
- There is evidence of regular multidisciplinary team meetings to evaluate the care delivered and review the management plan.
- Information relating to the specific tracheostomy tube must be clearly documented and is clearly visible at the bedside.
- All patients should have a 'Tracheostomy Passport' containing personal information relating to their tracheostomy (NCEPOD, 2014).
- All patients must have a double cannulated tracheostomy tube in situ, except for mini-tracheostomies (ICS, 2014).
- Cuff pressures (minimum occlusion volumes, MOV) should not exceed 25cmH₂O (ICS, 2014).
- If a patient has a fenestrated outer tube, the fenestrated inner tube must be exchanged for the plain inner tube prior to performing suctioning (Dougherty et al., 2015).
- Signs of respiratory distress must prompt an urgent airway assessment to investigate for possible tube displacement or blockage.
- Every ward looking after patients with a tracheostomy must have a clear procedure for managing tracheostomy emergencies (ICS, 2014).
- To facilitate tube decannulation, the 'weaning' process must be guided by agreed parameters determined by the multi-disciplinary team.
- Following successful decannulation the patient must be closely observed and monitored for sign of respiratory distress.
- Humidification is essential for patients with a temporary tracheostomy (ICS, 2014).
- To safeguard inter-hospital transfers, accompanying staff must ensure the appropriate equipment is available en-route and at the destination.

FACTOR 1 – Documentation – Assessment and Implementation of Care

STATEMENT OF BEST PRACTICE	POOR ←	LEVEL OF ACHIEVEMENT	→ EXCELLENT
<p>1.0 Following an assessment an individualised care plan will be implemented and evaluated every shift or when the patients' health needs change (National tracheostomy Safety Project, NTSP, 2013)</p>			
<p>1.1 Nursing documentation must include the following information: (NTSP, 2013)</p> <ul style="list-style-type: none"> • Reason for the tracheostomy • Type of tracheostomy • Size of the tube • Date of insertion and date of removal • Date to be changed (if appropriate) • Stoma care • Respiratory rate and O₂ saturation • Oxygen requirements • Method of Humidification • Suction requirements • Quality and type of secretion (monitor colour, volume, consistency, odour). • Subglottic tube aspirate (monitor colour, volume, consistency, odour). • Inner tube checks • Cuff pressure monitoring • Visual check of tube position • Dressing and tape change • Speaking valve/Passy Muir valve (if applicable) • Essential equipment at the bedside including emergency tracheostomy kit is checked at least once per shift 			

FACTOR 1 – Documentation – Evaluation of Care

STATEMENT OF BEST PRACTICE	POOR ←	LEVEL OF ACHIEVEMENT	→ EXCELLENT
<p>1.2 The following essential equipment <u>must</u> be present by the patient’s bedside.</p> <p>To ensure safe inter-hospital transfers, accompanying staff must ensure the appropriate equipment is available en-route and at the destination.</p> <p>Staff must be trained and competent to use the emergency equipment: -</p> <ul style="list-style-type: none"> • Spare tracheostomy tube (same size and one size smaller) • Tracheostomy dilators (as per local protocol) (NTSP, 2013, NCEPOD, 2014) • Working suction equipment, suction catheters, eye protection (open suction only) • Yankeur Sucker • Non re-breath bag and bag valve mask and oxygen tubing. • Sterile water • Humidification equipment • 10ml syringes (at least 1) • Patient call bell • Gloves • Tracheostomy dressing and tape • Cuff Manometer • Lubricant • Scissors (stitch cutter if tracheostomy tube is sutured) • Sterile gloves - for performing deep suction (NTSP, 2013) 			

FACTOR 1 – Documentation – Evaluation of Care

STATEMENT OF BEST PRACTICE	POOR ←	LEVEL OF ACHIEVEMENT	→ EXCELLENT
1.3 There is evidence of documentation that this equipment is checked daily in accordance with local protocol.			
1.4 All patients have an opportunity to evaluate their own plan of Care.			
1.5 There is documented evidence of regular multidisciplinary team meetings to evaluate the care delivered and review the management plan.			

FACTOR 2 – Protocol

STATEMENT OF BEST PRACTICE	POOR ←	LEVEL OF ACHIEVEMENT	→ EXCELLENT
<p>2.0 There is evidence of evidence/research based guidelines/protocols available. These include the following:</p> <ul style="list-style-type: none"> • Emergency management • Stoma care and general care of tubes • Care of subglottic tube • Suctioning and oxygenation • Humidification • Changing a tracheostomy tube • First tube change • Weaning and decannulation • Staff education and competency 			
<p>2.1 Policy protocol is up to date and reviewed at least every 2 years</p>			
<p>2.2 Tube Management</p> <ul style="list-style-type: none"> • Tracheostomy Tube data should be clearly documented and available at the patient’s bedside. • All patients should have a ‘Tracheostomy Passport’ containing personal information relating to their tracheostomy (NCEPOD, 2014). • All patients must have a double cannulated tracheostomy tube in situ, except for mini- tracheostomies. (ICS, 2014) 			

FACTOR 2 – Protocol

STATEMENT OF BEST PRACTICE	POOR ←	LEVEL OF ACHIEVEMENT	→ EXCELLENT
<p>2.3 Tracheostomy tube changes</p> <ul style="list-style-type: none"> • There is a documented, collaborative decision to change the tube • Recommended tracheostomy tube changes are at least every 30 days or as per manufacturer’s recommendations (ICS, 2014). • Tracheostomy tube changes must involve two-practitioners who are both trained and competent (NTSP, 2013) • If a difficult tube change is anticipated then a clinician experienced in upper airway management (including endotracheal intubation) and a clinician or practitioner proficient and experienced in managing tracheostomy tubes should be present (NTSP, 2013). • The procedure is carried out aseptically and the practitioners must wear appropriate PPE 			
<p>2.4 Cleaning inner tubes</p> <ul style="list-style-type: none"> • The inner tube must be cleaned is cleaned at the bedside using non- abrasive cleaning devices and air-dried prior to reinsertion. (Abrasive wire brushes may cause scratch marks on the inside of the tubes and risk colonisation NTSP, 2013) • The inner tube should be checked and cleaned at least once every 4 Hours or as clinically indicated. • A spare inner tube must be available at the patient’s bedside. 			
<p>2.5 Cuff management</p> <ul style="list-style-type: none"> • All cuffed tracheostomy tubes must have the cuff pressure checked and documented at least once per shift (between 15 – 25 cmH₂O, 10 to 18 mmHg – maybe higher in ventilated patients) (ICS, 2014). • A cuff pressure manometer/ gauge should be used to check the cuff pressure (NTSP, 2013). 			

FACTOR 2 – Protocol

STATEMENT OF BEST PRACTICE	POOR ←	LEVEL OF ACHIEVEMENT	→ EXCELLENT
<p>2.6 Stoma care</p> <p>The application of a stoma dressing is dictated by individual clinical need:</p> <ul style="list-style-type: none"> • When a dressing is indicated a polyurethane pre-cut key-hole dressing is recommended. Non pre-cut Dressings are not recommended as loose fibres can enter the airway (NTSP, 2013). • If a dressing is not indicated then a barrier film is advocated (NHS QIS, 2003). • The procedure is carried out aseptically and the practitioners must wear protective eye wear, sterile gloves and aprons as appropriate. • The dressing must be kept clean and dry according to clinical need (NHS QIS, 2003; Dixon, 2000). The dressing should be individually assessed or changed as clinical indicated aiming to keep the dressing dry and intact (NTSP, 2013). • The stoma site must be cleaned with normal saline using non-fibre shedding gauze swabs to remove exudates/secretions. • Cotton tapes or commercial tracheostomy holders should be used to secure the tracheostomy tube. • Tapes should be checked a minimum of once a shift and changed as clinically indicated. • The tension of the tapes/ties should be assessed to ensure one finger can slide between the tapes and neck (NTSP, 2013). • Tube ties must be checked for security prior to undertaking any clinical intervention e.g. dressing, movement and handling. • Following decannulation an airtight dressing should be placed over the stoma to prevent air leakage and promote wound healing (NTSP,2013). 			

FACTOR 2 – Protocol

STATEMENT OF BEST PRACTICE	POOR ←	LEVEL OF ACHIEVEMENT	→ EXCELLENT
<p>2.7 Humidification</p> <ul style="list-style-type: none"> • No patient with a tracheostomy is left without some form of humidification e.g. <ul style="list-style-type: none"> ○ Cold or heated humidification ○ Heat moisture exchanger (HME) ○ Buchanan bib ○ Saline nebulisers • Oxygen therapy is clearly prescribed stating the percentage, flow rate, duration and delivery system. 			
<p>2.8 Suctioning</p> <ul style="list-style-type: none"> • Suction pressures no greater than 20 kPa // 150mmHg is recommended for adults (NTSP, 2013). • Appropriate sized, single-use multi- eyed catheter must be used. Catheter diameter should be less than half the inner diameter of the tube to allow airflow around the sides of the catheter (NTSP, 2013). • If a patient has a fenestrated outer tube, ensure that a plain inner tube is in situ, rather than a fenestrated inner tube is in place prior to suctioning (Dougherty et al., 2015). • Suctioning should last no longer than 10 seconds at each pass (NTSP, 2013). • Suction is only applied during withdrawal of the catheter (Mallett, 2000) • Closed circuit suctioning is preferable and should be used on all ventilated and high flow O₂ patients. • Open suction technique is to be performed as an aseptic technique (Dougherty et al., 2015) • Consider pre-oxygenation prior to suctioning dependent upon the patients clinical needs (ICS 2014) 			

FACTOR 2 – Protocol

STATEMENT OF BEST PRACTICE	POOR ←	LEVEL OF ACHIEVEMENT	→ EXCELLENT
<p>2.9 Weaning</p> <p>The person or team responsible for tracheostomy management must be clearly defined, particularly if it is not the specialty with primary responsibility for the rest of the patient’s care.</p> <p>Prior to decannulation, an assessment of the upper airway should be undertaken. This may be clinical or require fibre optic inspection, and may require multi-disciplinary expertise in complex cases (ICS, 2014).</p> <p>Weaning will be a sequential process with consideration to the following:</p> <ul style="list-style-type: none"> • The patient must have set agreed parameters determined by the MDT. • During the whole weaning process, the patient must be continually assessed and evaluated for signs of respiratory distress (Rumbak el at, 1997; Boynton et al, 2004). • Tracheostomy ‘BED SIGNS’ must be clearly visible. • A period of cuff down trials must be clearly documented. • Safe staffing levels are available to maintain patient safety. • Feeding regimes are reviewed and if appropriate stopped prior to the commencement of any stage of the weaning process to minimise the risk of aspiration. • Speaking valves and occlusion caps may be advocated and can be used prior to tube removal (NTSP, 2013). • Failure to deflate the cuff when a speaking valve or decannulation cap is attached will result in a total occlusion of the patient’s airway (ICS, 2014) and suffocation. 			

FACTOR 2 – Protocol

STATEMENT OF BEST PRACTICE	POOR ←	LEVEL OF ACHIEVEMENT	→ EXCELLENT
<p>2.9 Weaning continued</p> <ul style="list-style-type: none"> • The use of a speaking valve (aim for successful 24hr trial to determine if safe for decannulation). • Tube occlusion technique “capping” for a pre-determined period may be advocated in some clinical settings (Serra, 2000). • If a patient has had a tracheostomy tube in situ for a prolonged period of time, cuff deflation should normally be tolerated for around 24 hours prior to attempting further interventions and proceeding with the decannulation plan (NTSP, 2013). • It is important to ensure that the cuff is deflated and that the patient can breathe through their upper airway, before any longer term occlusive test of the tracheostomy is undertaken (ICS, 2014). • Appropriate documentation is completed throughout. • The ward MDT has written protocol of how to access expert help in an emergency at any time (Bedhead signs). 			

FACTOR 2 – Protocol

STATEMENT OF BEST PRACTICE	POOR ←	LEVEL OF ACHIEVEMENT	→ EXCELLENT
<p>2.10 Decannulation</p> <ul style="list-style-type: none"> It is important to ensure that the cuff is deflated and that the patient can breathe through their upper airway, before any longer term occlusive test of the tracheostomy is applied (ICS, 2014). Following successful decannulation: <ul style="list-style-type: none"> The patient must be closely observed and monitored for sign of respiratory distress. An airtight dressing should be applied to the stoma site and observed for signs of inflammation. 			
<p>2.11 Communication</p> <ul style="list-style-type: none"> Where appropriate, the patient/relatives must be informed prior to the tracheostomy procedure that they will lose their ability to speak clearly whilst the tube is insitu. Consideration must be given to the psychological impact of the loss of voice. Patients with a tracheostomy will have complex communication needs and must be assessed by speech and language therapist in order to meet their specific needs. Alternative forms of communication should be readily available to aid conversation. 			
<p>2.12 Nutrition</p> <ul style="list-style-type: none"> A formal swallowing assessment must be undertaken by a speech and language therapist or dysphagia trained practitioner. The patient must be reviewed by the dietician to ensure good nutritional care. 			

FACTOR 3 – Education

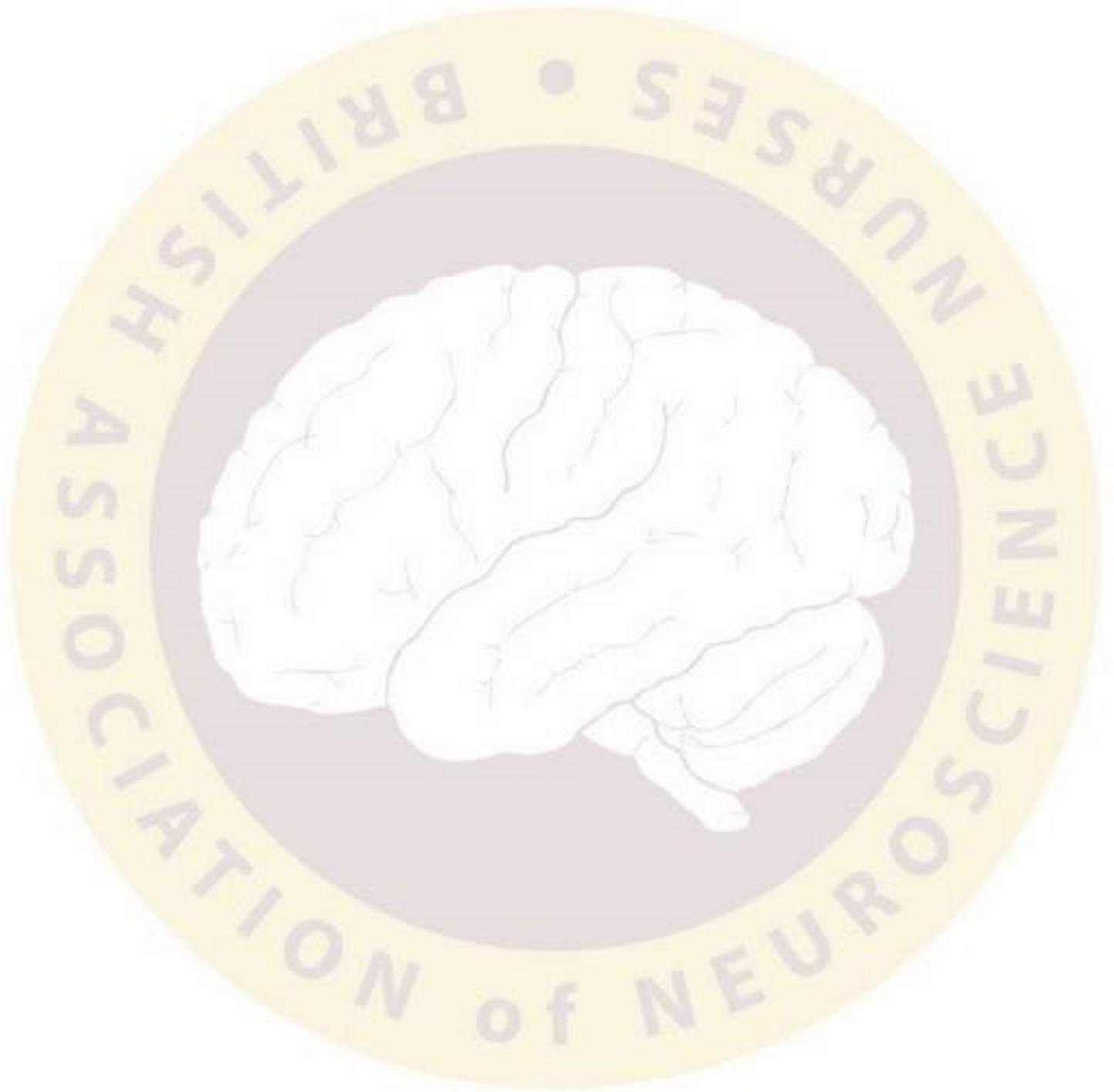
STATEMENT OF BEST PRACTICE	POOR ←	LEVEL OF ACHIEVEMENT	→ EXCELLENT
<p>3.0 All practitioners involved in tracheostomy management must be provided with structured competency based training program. This must include a formal assessment of knowledge and skills.</p> <p>An assessment of competency must be completed and documented This will include:</p> <ul style="list-style-type: none"> • Awareness of the rationale for the tracheostomy tube. • Identification of the potential risks and complications associated with a tracheostomy. • The range of equipment used (including resuscitation equipment). • Relevant documentation 			
<p>3.1 Staff are aware of the procedure for escalating their concerns.</p>			
<p>3.2 Staff are aware of how to access relevant protocols and guidelines.</p>			

FACTOR 4 – Patient Information

STATEMENT OF BEST PRACTICE	POOR ←	LEVEL OF ACHIEVEMENT	→ EXCELLENT
<p>4.0 Patients/carers are informed of the rationale for the tracheostomy tube and consent is obtained prior to the procedure (DH, 2009).</p> <p>Written information is available for patients and carers.</p> <p>Alternative methods of communication are available.</p> <p>Patient/ family/carer must be given the following information:</p> <ul style="list-style-type: none"> • Details of the tracheostomy • Equipment that they are likely to encounter eg., humidification, suctioning. • Likely duration of the tracheostomy 			
<p>4.1 Any information verbal /written that is given to the patient/carers is documented in the patient records.</p>			
<p>4.2 The written information that is given is current and evidence based.</p>			
<p>4.3 Patient information is reviewed in accordance with local policy.</p>			

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