TRACHEOSTOMY CARE STUDY
National Confidential Enquiry into Patient Outcome and Death (NCEPOD)
WARD CARE QUESTIONNAIRE

CONFIDENTIAL

Hospital number: __________________________  NHS number: __________________________

Who completed this questionnaire?
Name: __________________________  Position: __________________________
Hospital: __________________________  Trust: __________________________

To be completed for all patients with a surgical or percutaneous tracheostomy who have a ward stay with the tracheostomy in situ. The questionnaire should be completed (whichever occurs first) AT THE TIME OF DEATH, DISCHARGE FROM THE WARD, DECANNULATION, OR DAY 30 ON THE WARD WITH THE TRACHEOSTOMY IN SITU.

What is this study about?
NCEPOD is examining remediable factors in the process of care of ADULT patients (16 years or older) who undergo the insertion of a tracheostomy.

Data is being collected over a 4 month period from all sites where the insertion of a tracheostomy is undertaken across England, Wales, Northern Ireland, Jersey, Guernsey and the Isle of Man, from both the public and the independent sector (where applicable). Both surgical and percutaneous insertions undertaken on either an emergency or elective basis will be included in the data collection.

How to complete the form:
Information will be collected using two methods; box cross and free text, where your opinion will be requested.

This form will be electronically scanned. Please use a black or blue pen. Please complete all questions with either block capitals or a bold cross inside the boxes provided e.g.

Was this a standalone tracheostomy procedure?
☒ Yes  ☐ No

If you make a mistake, please “black-out” the incorrect box and re-enter the correct information, e.g.

☒ Yes  ☐ No

Unless indicated, please mark only one box per question.

Questions or help?
A list of definitions is provided on page 2 of the questionnaire.

If you have any queries about this study or this questionnaire, please contact tracheostomy@ncepod.org.uk
Or telephone: 020 7251 9060

Thank you for taking the time to complete this questionnaire. The findings of the study will be published in 2014.
### DEFINITIONS

<table>
<thead>
<tr>
<th>Elective procedure/operation</th>
<th>A procedure or operation that is planned or booked in advance of routine admission to hospital.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levels of ward care</td>
<td></td>
</tr>
<tr>
<td>Level 0: Patients whose needs can be met through normal ward care in an acute hospital.</td>
<td></td>
</tr>
<tr>
<td>Level 1: Patients at risk of their condition deteriorating, or those recently relocated from higher levels of care whose needs can be met on an acute ward with additional advice and support from the critical care team.</td>
<td></td>
</tr>
<tr>
<td>Level 2: (e.g. HDU) Patients requiring more detailed observation or intervention including support for a single failing organ system or post operative care, and those stepping down from higher levels of care. (NB: When Basic Respiratory and Basic Cardiovascular support are provided at the same time during the same critical care spell and no other organ support is required, the care is considered to be Level 2 care).</td>
<td></td>
</tr>
<tr>
<td>Level 3: (e.g. ICU) Patients requiring advanced respiratory support alone or basic respiratory support together with support of at least two organs. This level includes all complex patients requiring support for multi-organ failure. (NB: Basic Respiratory and Basic Cardiovascular do not count as 2 organs if they occur simultaneously (see above under Level 2 care), but will count as Level 3 if another organ is supported at the same time).</td>
<td></td>
</tr>
<tr>
<td>Critical care</td>
<td>Level 2 and 3 care</td>
</tr>
<tr>
<td>Bed head signs</td>
<td>A sign available at the patient's bed space which allows the quick and easy communication of information. (National Tracheostomy Safety Project, 2012. Page 46)</td>
</tr>
</tbody>
</table>

### CODES FOR SPECIALTY

#### SURGICAL SPECIALTIES

<table>
<thead>
<tr>
<th>Level 000</th>
<th>Speciality</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>General Surgery</td>
</tr>
<tr>
<td>101</td>
<td>Urology</td>
</tr>
<tr>
<td>103</td>
<td>Breast Surgery</td>
</tr>
<tr>
<td>104</td>
<td>Colorectal Surgery</td>
</tr>
<tr>
<td>105</td>
<td>Hepatobiliary &amp; Pancreatic Surgery</td>
</tr>
<tr>
<td>106</td>
<td>Upper Gastrointestinal Surgery</td>
</tr>
<tr>
<td>107</td>
<td>Vascular Surgery</td>
</tr>
<tr>
<td>120</td>
<td>Ear, Nose &amp; Throat (ENT)</td>
</tr>
<tr>
<td>130</td>
<td>Ophthalmology</td>
</tr>
<tr>
<td>140</td>
<td>Oral Surgery</td>
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<tr>
<td>145</td>
<td>Maxillo-Facial Surgery</td>
</tr>
<tr>
<td>150</td>
<td>Neurosurgery</td>
</tr>
<tr>
<td>160</td>
<td>Plastic Surgery</td>
</tr>
<tr>
<td>161</td>
<td>Burns Care</td>
</tr>
<tr>
<td>170</td>
<td>Cardiothoracic Surgery</td>
</tr>
<tr>
<td>172</td>
<td>Cardiac Surgery</td>
</tr>
<tr>
<td>173</td>
<td>Thoracic Surgery</td>
</tr>
<tr>
<td>180</td>
<td>Accident &amp; Emergency</td>
</tr>
<tr>
<td>190</td>
<td>Critical/Intensive Care</td>
</tr>
<tr>
<td>192</td>
<td>Medicine</td>
</tr>
</tbody>
</table>

#### MEDICAL SPECIALTIES

<table>
<thead>
<tr>
<th>Level 000</th>
<th>Speciality</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>General Medicine</td>
</tr>
<tr>
<td>301</td>
<td>Gastroenterology</td>
</tr>
<tr>
<td>302</td>
<td>Endocrinology</td>
</tr>
<tr>
<td>303</td>
<td>Clinical Haematology</td>
</tr>
<tr>
<td>306</td>
<td>Hepatology</td>
</tr>
<tr>
<td>307</td>
<td>Diabetic Medicine</td>
</tr>
<tr>
<td>314</td>
<td>Rehabilitation</td>
</tr>
<tr>
<td>315</td>
<td>Palliative Medicine</td>
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<tr>
<td>320</td>
<td>Cardiology</td>
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<tr>
<td>330</td>
<td>Dermatology</td>
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<tr>
<td>340</td>
<td>Respiratory Medicine</td>
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<tr>
<td>350</td>
<td>Infectious Diseases</td>
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<td>352</td>
<td>Tropical Medicine</td>
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<td>360</td>
<td>Genito-Urinary Medicine</td>
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<td>361</td>
<td>Nephrology</td>
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<td>370</td>
<td>Medical Oncology</td>
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<td>400</td>
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<td>410</td>
<td>Rheumatology</td>
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<td>430</td>
<td>Geriatric Medicine</td>
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<td>500</td>
<td>Obstetrics &amp; Gynaecology</td>
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<td>501</td>
<td>Obstetrics</td>
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<td>Gynaecology</td>
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<tr>
<td>800</td>
<td>Clinical Oncology</td>
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<td>810</td>
<td>Radiology</td>
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<tr>
<td>820</td>
<td>General Pathology</td>
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<tr>
<td>823</td>
<td>Haematology</td>
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</table>

### CODES FOR GRADE

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Consultant</td>
</tr>
<tr>
<td>03</td>
<td>Trainee with CCT</td>
</tr>
<tr>
<td>05</td>
<td>Junior specialist trainee (ST1&amp;ST2 or CT equivalent)</td>
</tr>
<tr>
<td>07</td>
<td>Nursing</td>
</tr>
<tr>
<td>09</td>
<td>Other</td>
</tr>
<tr>
<td>02</td>
<td>Staff grade/Associate specialist</td>
</tr>
<tr>
<td>04</td>
<td>Senior specialist trainee (ST3+ or equivalent)</td>
</tr>
<tr>
<td>06</td>
<td>Basic grade (HO/FY1 or SHO/FY2 or equivalent)</td>
</tr>
<tr>
<td>08</td>
<td>Physiotherapy</td>
</tr>
</tbody>
</table>
Please provide a brief summary of this case, adding any comments or information you feel relevant, (please write clearly for the benefit of the specialist advisory group who will be reviewing the questionnaires). You may also type on a separate sheet. You may like to fill in the summary once you have completed the rest of the questionnaire.

NCEPOD attaches great importance to this summary. Please give as much information as possible about the care of this patient.
A. PATIENT DETAILS

1. Age at the time of insertion: [ ]
2. Sex: [ ] Male [ ] Female
3a. Date of tracheostomy insertion: [ ] d d [ ] m m [ ] y y y y [ ] Unknown
3b. Time of tracheostomy insertion: [ ] h h [ ] m m (24 hour clock) [ ] Unknown
4a. Date of discharge from critical care: [ ] d d [ ] m m [ ] y y y y [ ] Unknown
4b. Time of discharge from critical care: [ ] h h [ ] m m (24 hour clock) [ ] Unknown
5a. Date of admission to ward: [ ] d d [ ] m m [ ] y y y y [ ] Unknown
5b. Time of admission to ward: [ ] h h [ ] m m (24 hour clock) [ ] Unknown
6. Type of tracheostomy insertion: [ ] Surgical [ ] Percutaneous
7. Reason for questionnaire completion:
   [ ] Death (<=30 days)
   [ ] Decannulation (<=30 days)
   [ ] Discharge alive with tracheostomy in situ (<=30 days)
   [ ] Alive and day 30 after insertion in theatre and transferred straight to ward
   [ ] Alive and day 30 after leaving critical care (Please see definitions P2)

B. ORGANISATION OF CARE

8a. Were comprehensive risk assessment(s) relating to the tracheostomy undertaken on this patient before admission? [ ] Yes [ ] No [ ] Unknown
8b. If YES, did this determine:
   The dependency of the patient [ ] Yes [ ] No [ ] Unknown
   The level of observation required [ ] Yes [ ] No [ ] Unknown
   The level of visibility required [ ] Yes [ ] No [ ] Unknown
9. Were staff with particular competencies (in relation to the care of tracheostomies) routinely allocated to this patient? [ ] Yes [ ] No [ ] Unknown
C. ROUTINE CARE

10a. What was the frequency of routine monitoring of vital signs?


10b. Did this routine monitoring include:

- [ ] Respiration rate
- [ ] Oxygen saturation
- [ ] Temperature
- [ ] Any supplemental oxygen
- [ ] Systolic BP
- [ ] Heart rate
- [ ] Level of consciousness

10c. Was a guideline or protocol for humidification or suction of the newly formed tracheostomy followed for this patient?

- [ ] Yes
- [ ] No
- [ ] Unknown

11. What BEDSIDE equipment was available for this tracheostomy patient? (Answers may be multiple)

- [ ] Operational suction unit with suction tubing attached and wide bore (e.g. Yankeur) sucker
- [ ] Appropriately sized suction catheters
- [ ] Non-powdered latex free gloves and aprons
- [ ] Eye protection
- [ ] Tracheal dilators
- [ ] Spare tracheostomy tubes of the same type as inserted: one the same size and one a size smaller
- [ ] Rebreathing bag and tubing
- [ ] Catheter mount or connection
- [ ] Tracheostomy disconnection wedge
- [ ] Tracheostomy tube holder and dressing
- [ ] 10ml syringe (if cuffed tube)
- [ ] Artery forceps
- [ ] Resuscitation equipment
- [ ] Cricoid hook
- [ ] Headlight/adequate illumination
- [ ] Bedside oxygen
- [ ] Stitch cutter
- [ ] Water soluble gel

D. TUBE CHANGES ON THE WARD

ONLY TO BE COMPLETED ON PATIENTS WHO HAD A 1st OR 2nd TUBE CHANGE ON THIS WARD

If the patient had their first tube change on this ward please go to question 12
If the patient ONLY had a second tube change on this ward please go to question 16
If the tube had previously been changed twice or more prior to this ward admission please go to question 22

FIRST CHANGE

12a. Please specify the date of the first change

- [ ] d d
- [ ] m m
- [ ] y y y y
- [ ] Unknown

12b. Time of first change

- [ ] h h
- [ ] m m
- (24 hour clock)
- [ ] Unknown
13a. Was this:  
☐ Planned  ☐ Unplanned  ☐ Unknown

13b. If UNPLANNED, what were the reasons for this?  
☐ Tube blocked  ☐ Tube displaced  
☐ Unknown  ☐ Other (Please specify)  

14. If PLANNED, how many trained/skilled members of staff were present for the tube change?  
☐  ☐ Unknown

15a. What type of tracheostomy tube was used to replace? (Please answer all)  
i) ☐ Cuffed  ☐ Uncuffed  ☐ Unknown  
ii) ☐ Non-fenestrated  ☐ Fenstreted  ☐ Unknown  
iii) ☐ Inner tube  ☐ No inner tube  ☐ Unknown  
iv) ☐ Sub glottic aspiration port  ☐ No sub glottic aspiration port  ☐ Unknown  
v) ☐ Standard length  ☐ Adjustable flange tube  ☐ Unknown  
vi) ☐ Minitracheostomy  
vii) ☐ Other (please specify)  

15b. Please give details as to why this tube was used:  

15c. What size tracheostomy was used?  
☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ Unknown  
☐ Other  

SECOND CHANGE

16a. Please specify the date of the second change:  
☐ d  ☐ d  ☐ m  ☐ m  ☐ y  ☐ y  ☐ y  ☐ y  ☐ Unknown

16b. Time of second change:  
☐ h  ☐ h  ☐ m  ☐ m  ☐ (24 hour clock)  ☐ Unknown

17a. Was this:  
☐ Planned  ☐ Unplanned  ☐ Unknown

17b. If UNPLANNED, what were the reasons for this?  
☐ Tube blocked  ☐ Tube displaced  
☐ Unknown  ☐ Other (Please specify)  

18. If PLANNED, how many trained/skilled members of staff were present for the tube change?  
☐  ☐ Unknown
19a. What type of tracheostomy tube was used to replace? (Please answer all)

i) □ Cuffed □ Uncuffed □ Unknown

ii) □ Non-fenestrated □ Fenestrated □ Unknown

iii) □ Inner tube □ No inner tube □ Unknown

iv) □ Sub glottic aspiration port □ No sub glottic aspiration port □ Unknown

v) □ Standard length □ Adjustable flange tube □ Unknown

vi) □ Minitracheostomy □

vii) □ Other (please specify) □

19b. Please give details as to why this tube was used:

19c. What size tracheostomy was used? □ 6 □ 7 □ 8 □ 9 □ Unknown

□ Other

20. Was a Trust or ward guideline for changing the tracheostomy tube followed for this patient? □ Yes □ No □ Unknown

21a. Were there more than two tracheostomy tube changes since insertion? □ Yes □ No □ Unknown

21b. If YES, how often thereafter was this patient’s tracheostomy tube changed as a planned procedure?

□ Weekly □ More than once weekly

□ No fixed policy □ Other (Please specify) □

22a. Do you have the equipment to measure cuff pressure? □ Yes □ No □ Unknown

22b. Was cuff pressure monitored?

□ Yes □ No □ Unknown

Not applicable - equipment not available

Please go to question 22c

Not applicable - cuffed tube not used

Please go to question 26

22c. Was the cuff continuously inflated? □ Yes □ No □ Unknown

22d. If NO, how often was the cuff deflated? (Please specify)
23a. Was a daily assessment made of the need for cuff deflation?  □ Yes □ No □ Unknown

23b. Was a daily assessment made on the outcome of deflation whilst a cuffed tube was in use?  □ Yes □ No □ Unknown

24. How often does the protocol/guideline (if present) suggest that cuff monitoring should be undertaken?

□ No protocol/guideline □ Continuous monitoring
□ Once every shift □ More than once a shift but not continuously
□ Unknown □ Other (Please specify)

25. How often was cuff pressure monitored and recorded?

□ Continuous monitoring □ Once every shift
□ More than once a shift but not continuously □ Cuff pressure not monitored
□ Unknown □ Other (Please specify)

F. INNER CANNULA CLEANING

26. Was an inner cannula used for this patient at any stage whilst on this ward?  □ Yes □ No □ Unknown

If NO, go to question 28

If YES:

27a. How often does the protocol/guideline (if present) suggest that the inner cannula inspection and cleaning (if required) should be undertaken?

□ No protocol/guideline □ Hourly
□ Two hourly □ Four hourly
□ Eight hourly □ Once every shift
□ Patient specific □ Other (Please specify)
□ Unknown

27b. How often is it documented that the inner cannula was inspected and cleaned (if required) for this patient?

□ Hourly □ Two hourly
□ Four hourly □ Eight hourly
□ Once every shift □ Other (Please specify)
□ Unknown

□ Cuff pressure not monitored
### G. MULTIDISCIPLINARY TEAM

28. Please indicate whether the following teams were available on site whilst this patient was being cared for on your ward, and whether there was any delay in accessing the service?

<table>
<thead>
<tr>
<th>Service</th>
<th>Availability</th>
<th>Was there a delay in accessing the service?</th>
<th>If YES, how long was the delay?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiotherapy</td>
<td>Yes 24/7</td>
<td>Yes No Unknown HH:MM</td>
<td></td>
</tr>
<tr>
<td>Critical care outreach</td>
<td>Yes 24/7</td>
<td>Yes No Unknown HH:MM</td>
<td></td>
</tr>
<tr>
<td>Speech &amp; Language therapy</td>
<td>Yes No Unknown</td>
<td>Yes No</td>
<td></td>
</tr>
<tr>
<td>Dietetics</td>
<td>Yes No Unknown</td>
<td>Yes No</td>
<td></td>
</tr>
<tr>
<td>Head &amp; Neck/ Specialist tracheostomy nurse</td>
<td>Yes No Unknown</td>
<td>Yes No</td>
<td></td>
</tr>
</tbody>
</table>

If there was a delay, did this impact on the patient?

29a. Post insertion of tracheostomy, was this patient discussed at an MDT meeting?

<table>
<thead>
<tr>
<th>Service</th>
<th>Availability</th>
<th>Was there a delay in accessing the service?</th>
<th>If YES, how long was the delay?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiotherapy</td>
<td>Yes No Unknown</td>
<td>Yes No</td>
<td></td>
</tr>
<tr>
<td>Critical Care Outreach</td>
<td>Yes No Unknown</td>
<td>Yes No</td>
<td></td>
</tr>
<tr>
<td>Speech &amp; Language therapist</td>
<td>Yes No Unknown</td>
<td>Yes No</td>
<td></td>
</tr>
<tr>
<td>Dietetics</td>
<td>Yes No Unknown</td>
<td>Yes No</td>
<td></td>
</tr>
<tr>
<td>Head &amp; Neck specialist nurse</td>
<td>Yes No Unknown</td>
<td>Yes No</td>
<td></td>
</tr>
</tbody>
</table>

29b. If YES, in addition to the ward clinical teams, which teams participated in the MDT meeting?

- **Physiotherapy**
  - Yes No Unknown NA - not available
- **Critical Care Outreach**
  - Yes No Unknown NA - not available
- **Speech & Language therapist**
  - Yes No Unknown NA - not available
- **Dietetics**
  - Yes No Unknown NA - not available
- **Head & Neck specialist nurse**
  - Yes No Unknown NA - not available
30a. At what point did this patient see a physiotherapist after ward admission?
☐ <12 hours  ☐ Between 12 - 24 hours  ☐ >24 hours  ☐ Unknown
☐ Other (please specify) ___________________________  ☐ NA - did not see physiotherapist

30b. Thereafter how often did this patient see a physiotherapist?
☐ Daily  ☐ 2 - 3 times a week  ☐ Weekly  ☐ Unknown
☐ Less often (please specify) ___________________________  ☐ NA - did not see physiotherapist

30c. Was this appropriate to the needs of this patient?  ☐ Yes  ☐ No  ☐ Unknown

30d. If NO, please give further details

31a. At what point was this patient referred to Speech & Language therapy (SALT) following the tracheostomy insertion?
☐ <24 hours  ☐ Between 24 - 48 hours  ☐ >48 hours  ☐ Unknown
☐ Other (please specify) ___________________________  ☐ NA - not referred to SALT

31b. How long following referral did it take to be assessed by a Speech & Language therapist?
☐ <24 hours  ☐ Between 24 - 48 hours  ☐ >48 hours  ☐ Unknown
☐ Other (please specify) ___________________________

31c. Thereafter how often did this patient see a Speech and Language therapist?
☐ Daily  ☐ 2 - 3 times a week  ☐ Weekly  ☐ Unknown
☐ Less often (please specify) ___________________________

31d. Was this appropriate to the needs of this patient?  ☐ Yes  ☐ No  ☐ Unknown

31e. If NO, please give further details

32a. Were attempts made to facilitate communication?  ☐ Yes  ☐ No  ☐ Unknown

32b. If YES, what methods were used to facilitate communication?
☐ Fenestrated tube  ☐ Other insufflation devices
☐ Picture/alphabet chart  ☐ Pen/paper
☐ Speaking valve  ☐ Other electronic device
☐ Other (please specify) ___________________________
32c. Was the use of a speaking valve considered?  
☐ Yes ☐ No ☐ Unknown

32d. Please give further details:

33. Was advice sought from Speech & Language therapy regarding communication assessment or needs for this patient?  
☐ Yes ☐ No ☐ Unknown

34a. Was the patient allowed to drink?  
☐ Yes ☐ No ☐ Unknown ☐ Not applicable

34b. If YES to 34a, was this with cuff deflation?  
☐ Yes ☐ No ☐ Unknown ☐ Not applicable

34c. If YES to 34b, was this:
☐ Before Speech & Language Therapy assessment  ☐ After Speech & Language Therapy assessment  ☐ Unknown
☐ Other assessment (please specify)  

34d. If YES to 34a, was this with cuff inflation?  
☐ Yes ☐ No ☐ Unknown ☐ Not applicable

34e. If YES to 34d, was this:
☐ Before Speech & Language therapy assessment  ☐ After Speech & Language therapy assessment  ☐ Unknown
☐ Other assessment (please specify)  

35. Did this patient have ongoing swallowing difficulties?  
☐ Yes ☐ No ☐ Unknown

36a. At what point was this patient referred to a dietitian following the tracheostomy insertion?
☐ <24 hours ☐ Between 24 - 48 hours ☐ >48 hours ☐ Unknown
☐ Other (please specify)  ☐ NA - not referred to dietitian

36b. How long following referral did it take to be assessed by a dietitian?  
☐ <24 hours ☐ Between 24 - 48 hours ☐ >48 hours ☐ Unknown
☐ Other (please specify)  

36c. Thereafter how often did this patient see a dietitian?
☐ Daily ☐ 2 - 3 times a week ☐ Weekly ☐ Unknown
☐ Less often (please specify)  

36d. Was this appropriate to the needs of this patient?  
☐ Yes ☐ No ☐ Unknown

36e. If NO, please give further details:

37. Did the patient require on-going artificial hydration and nutrition e.g. NGT, PEG?  
☐ Yes ☐ No ☐ Unknown

38. Was a guideline for feeding/nutritional support followed for this patient?  
☐ Yes ☐ No ☐ Unknown
### H. COMPLICATIONS ON THE WARD

39. Did the patient have any of the following complications on the ward, and if so, please note the number of days post insertion that these occurred for the first time, whether they happened more than once, and how these complications were managed (answers may be multiple)

**Please go to question 41**

<table>
<thead>
<tr>
<th>Complication (significant enough amount to cause clinical concern or need an intervention)</th>
<th>If YES, number of days post insertion of the first occurrence:</th>
<th>Did this reoccur</th>
<th>How were these complications managed? Please use the following codes and give further details where appropriate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Surgical emphysema</td>
<td>□ Yes □ No</td>
<td>□□□ Days</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>b) Pneumomediastinum</td>
<td>□ Yes □ No</td>
<td>□□□ Days</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>c) Pneumothorax</td>
<td>□ Yes □ No</td>
<td>□□□ Days</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>d) Accidental de-cannulation/displacement</td>
<td>□ Yes □ No</td>
<td>□□□ Days</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>e) Obstruction</td>
<td>□ Yes □ No</td>
<td>□□□ Days</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>f) Bleeding - minor</td>
<td>□ Yes □ No</td>
<td>□□□ Days</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>g) Bleeding - major</td>
<td>□ Yes □ No</td>
<td>□□□ Days</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>h) Infection - local</td>
<td>□ Yes □ No</td>
<td>□□□ Days</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>i) Infection - mediastinitis</td>
<td>□ Yes □ No</td>
<td>□□□ Days</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>j) Infection - respiratory</td>
<td>□ Yes □ No</td>
<td>□□□ Days</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>k) Aspiration</td>
<td>□ Yes □ No</td>
<td>□□□ Days</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>l) Fistula formation - trache-oesophageal</td>
<td>□ Yes □ No</td>
<td>□□□ Days</td>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>m) Fistula formation - trache-arterial</td>
<td>□ Yes □ No</td>
<td>□□□ Days</td>
<td>□ Yes □ No</td>
</tr>
</tbody>
</table>
39. Continued...

<table>
<thead>
<tr>
<th>Complication (significant amount to cause clinical concern or need an intervention)</th>
<th>If YES, number of days post insertion of the first occurrence:</th>
<th>Did this reoccur</th>
<th>How were these complications managed? Please use the following codes and give further details where appropriate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>n) Tracheal damage - to tracheal ring/necrosis</td>
<td>Yes</td>
<td>No</td>
<td>Days</td>
</tr>
<tr>
<td>o) Dysphagia</td>
<td>Yes</td>
<td>No</td>
<td>Days</td>
</tr>
</tbody>
</table>

**Other (please specify)** If multiple please list the most important

p) | q) | r) |
---|---|---|
Yes | No | Days | Yes | No |
Yes | No | Days | Yes | No |
Yes | No | Days | Yes | No |

40. If the patient experienced one of the following MAJOR complications, please give details of the most senior members of medical staff present during the first hour of their management.

<table>
<thead>
<tr>
<th>Complication</th>
<th>Grade</th>
<th>Specialty</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Bleeding - major</td>
<td>Grade</td>
<td>Unknown</td>
</tr>
<tr>
<td>NA - did not experience complication</td>
<td>Grade</td>
<td>Unknown</td>
</tr>
<tr>
<td></td>
<td>Grade</td>
<td>Unknown</td>
</tr>
<tr>
<td></td>
<td>Grade</td>
<td>Unknown</td>
</tr>
<tr>
<td></td>
<td>Grade</td>
<td>Unknown</td>
</tr>
<tr>
<td>b) Pneumothorax</td>
<td>Grade</td>
<td>Unknown</td>
</tr>
<tr>
<td>NA - did not experience complication</td>
<td>Grade</td>
<td>Unknown</td>
</tr>
<tr>
<td></td>
<td>Grade</td>
<td>Unknown</td>
</tr>
<tr>
<td></td>
<td>Grade</td>
<td>Unknown</td>
</tr>
<tr>
<td></td>
<td>Grade</td>
<td>Unknown</td>
</tr>
<tr>
<td>Complication</td>
<td>Grade</td>
<td>Specialty</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-------</td>
<td>-----------</td>
</tr>
<tr>
<td>c) Accidental decannulation/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>displacement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NA - did not experience complication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Obstruction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NA - did not experience complication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify) If multiple</td>
<td></td>
<td></td>
</tr>
<tr>
<td>please list the most important</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
I. ADVERSE EVENTS RELATING TO THE TRACHEOSTOMY

41a. Was there evidence of clinical hypoxia (e.g. confusion or cyanosis) in this patient during this ward stay?  
☐ Yes  ☐ No  ☐ Unknown

41b. If YES, was this as a result of a tracheostomy related complication?  
☐ Yes  ☐ No  ☐ Unknown

41c. If YES, please give details for each episode:

41d. If YES, was this confirmed by SaO2 monitoring?  
☐ Yes  ☐ No  ☐ Unknown

41e. What was the lowest recorded:

<table>
<thead>
<tr>
<th></th>
<th>%</th>
<th>KPa</th>
<th>mmHg</th>
</tr>
</thead>
<tbody>
<tr>
<td>SaO2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PaO2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

41f. How long was the patients oxygen saturation at this level?  
[(24 hour clock)  
☐ h  ☐ m  ☐ Unknown

41g. Do you think this episode of clinical hypoxia caused the patient harm?  
☐ Yes  ☐ No

42a. Did the patient have a cardiac arrest at any point during the ward care period?  
☐ Yes  ☐ No  ☐ Unknown

42b. If YES, was this as a result of a tracheostomy complication?  
☐ Yes  ☐ No  ☐ Unknown

42c. If YES, what was the cause of this complication? (Please tick all that apply)

☐ Tube blockage  ☐ Tube displacement
☐ Haemorrhage  ☐ Other (Please specify)  ☐ Unknown

43. Did the patient suffer any of the following tracheostomy/airway related adverse outcomes during the critical care period?

a) Respiratory arrest  
☐ Yes  ☐ No  ☐ Unknown

b) Persistant deterioration of cerebral status after airway complication  
☐ Yes  ☐ No  ☐ Unknown

c) Death  
☐ Yes  ☐ No  ☐ Unknown
J. DECANNULATION

ONLY TO BE COMPLETED ON PATIENTS WHO UNDERWENT SUCCESSFUL DECANNULATION OR REMOVAL ON THE WARD <= 30 DAYS FOLLOWING ADMISSION

44a. Was a successful decannulation/removal attempt made? □ Yes □ No □ Unknown

44b. If YES, what was the date of tracheostomy decannulation/removal?

44c. What was the time of tracheostomy decannulation/removal?

45. Was an airway endoscopy performed prior to tracheostomy decannulation/removal? □ Yes □ No □ Unknown

46. What other preparation for decannulation/removal was made? E.g. cuff deflation, speaking valve use etc.

47. What safety measures were in place at decannulation/removal? (Please tick all that apply)

**Airway devices**

- □ A range of tracheal and tracheostomy tubes
- □ Laryngoscopes, bougies, airway exchange catheters and aids to intubation
- □ Laryngeal masks
- □ Ready to access fibre-optic bronchoscope

**Equipment**

- □ A means of oxygen insufflation (e.g. suction catheter or airway exchange catheter
- □ A means of ventilatory support (e.g. self inflating bag)
- □ A means of reopening the stoma (e.g. tracheal dilator forceps)
- □ Access to a tracheostomy kit
- □ Effective suction equipment

**Monitoring**

- □ ECG
- □ Automated BP recordings
- □ Pulse oximeter
- □ Capnograph
47. Continued...

Medications

☐ Anaesthetic drugs
☐ Vasopressor agents
☐ Atropine
☐ Access to resuscitation equipment (e.g. defibrillator)

48a. What type of tracheostomy tube was removed (Please answer all)

i) ☐ Cuffed ☐ Uncuffed ☐ Unknown
ii) ☐ Non-fenestrated ☐ Fenstrated ☐ Unknown
iii) ☐ Inner tube ☐ No inner tube ☐ Unknown
iv) ☐ Sub glottic aspiration port ☐ No sub glottic aspiration port ☐ Unknown
v) ☐ Standard length ☐ Adjustable flange tube ☐ Unknown
vi) ☐ Minitracheostomy
vii) ☐ Other (please specify)

48b. What size tracheostomy was removed? ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ Unknown
☐ Other

49a. What was the grade of clinician undertaking the removal? (Please use grade codes on page 2)
☐ ☐ ☐ Unknown

49b. What was the specialty of clinician undertaking the removal? (Please use grade codes on page 2)
☐ ☐ ☐ Unknown

50. Was more than one attempt made at decannulation? ☐ Yes ☐ No ☐ Unknown

51a. Are you aware of any complications arising from a decannulation attempt? ☐ Yes ☐ No ☐ Unknown

51b. If YES, did this result in:

Admission or readmission to critical care ☐ Yes ☐ No ☐ Unknown

Other (please specify) ☐ Yes ☐ No ☐ Unknown

51c. Please give any other further details:
K. DISCHARGE

ONLY TO BE COMPLETED ON PATIENTS WHO WERE DISCHARGED ALIVE WITH THE TRACHEOSTOMY IN SITU FROM THIS WARD <= 30 DAYS FOLLOWING ADMISSION

52a. What was the date of discharge? ☐ d d ☐ m m ☐ y y y ☐ Unknown

52b. What was the time of discharge? ☐ h h ☐ m m (24 hour clock) ☐ Unknown

53a. What type of tracheostomy tube was in situ? (Please answer all)
   i) ☐ Cuffed ☐ Uncuffed ☐ Unknown
   ii) ☐ Non-fenestrated ☐ Fenestrated ☐ Unknown
   iii) ☐ Inner tube ☐ No inner tube ☐ Unknown
   iv) ☐ Sub glottic aspiration port ☐ No sub glottic aspiration port ☐ Unknown
   v) ☐ Standard length ☐ Adjustable flange tube ☐ Unknown
   vi) ☐ Minitracheostomy
   vii) ☐ Other (please specify)

53b. What size tracheostomy was in situ? ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ Unknown
   ☐ Other

53c. If a cuffed tracheostomy was in situ, was the cuff inflated on discharge? ☐ Yes ☐ No ☐ Unknown

54a. Where was the patient discharged to?
   ☐ Critical care unit (different hospital)
   ☐ Specialist ward (same hospital)
   - Head & Neck
   ☐ Specialist ward (same hospital) - Other ☐ Unknown
   (please use specialty codes on P2)
   ☐ General ward (same hospital)
   ☐ Community care (including nursing home,
   ☐ Other secondary care facility rehabilitation unit or other specialist unit outside
   ☐ Other of this or another hospital)
   ☐ Home
   ☐ Unknown
   ☐ Other (please specify)

54b. If this patient was readmitted to critical care, why was this?
   As a result of a tracheostomy/airway related complication? ☐ Yes ☐ No ☐ Unknown
   Other (please specify)

54c. Please give any other further details:
55a. Were there any concerns about the location the patient was discharged to with respect to the care of the tracheostomy?  
☐ Yes  ☐ No  ☐ Unknown

55b. If YES, what were the concerns? (Please tick all that apply)
☐ Ability to provide routine tracheostomy care
☐ Ability to recognise tracheostomy complications
☐ Ability to manage tracheostomy complications
☐ Follow up arrangements for tracheostomy
☐ Weaning and decannulation plan and practice
☐ Other (please specify) ________________________________

56. What support was in place for the patient’s follow up? (Please specify)  

L. DEATH

ONLY TO BE COMPLETED ON PATIENTS WHO DIED WITH THE TRACHEOSTOMY IN SITU <= 30 DAYS FOLLOWING ADMISSION

57a. What was the date of death?  
☐ d  ☐ d  ☐ m  ☐ m  ☐ y  ☐ y  ☐ y  ☐ y  ☐ Unknown

57b. What was the time of death?  
☐ h  ☐ h  ☐ m  ☐ m  ☐ (24 hour clock)  ☐ Unknown

57c. What was the cause of death as stated on the death certificate?  
☐ Unknown

58a. In the event that this patient died, was this:  
☐ Expected  ☐ Unexpected

58b. Do you believe that this was as a result of a tracheostomy related complication?  
☐ Yes  ☐ No  ☐ Unknown

58c. If YES, please give further details:  


M. ON THE WARD WITH THE TRACHEOSTOMY IN SITU

ONLY TO BE COMPLETED ON PATIENTS WHO ARE STILL ON THE WARD WITH THE TRACHEOSTOMY IN SITU >30 DAYS FOLLOWING WARD ADMISSION. PLEASE COMPLETE AS NEAR AS POSSIBLE TO DAY 30 FOLLOWING WARD ADMISSION.

59a. What type of tracheostomy tube was in situ? (Please answer all)
   i) □ Cuffed □ Uncuffed □ Unknown
   ii) □ Non-fenestrated □ Fenstrated □ Unknown
   iii) □ Inner tube □ No inner tube □ Unknown
   iv) □ Sub glottic aspiration port □ No sub glottic aspiration port □ Unknown
   v) □ Standard length □ Adjustable flange tube □ Unknown
   vi) □ Minitracheostomy
   vii) □ Other (please specify) □

59b. What size tracheostomy was in situ? □ 6 □ 7 □ 8 □ 9 □ Unknown □ Other □

60. Why was the patient still on the ward? (answers may be multiple)
   □ Ongoing need for secondary medical care
   □ Difficulties in securing appropriate community care
   □ Difficulty in finding a specialist rehabilitation unit
   □ Other (please specify) □

61a. Is there a plan of discharge for this patient? □ Yes □ No □ Unknown

61b. If NO, why not?

Thank you for taking the time to complete this questionnaire

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