Laryngectomy Patients and Emergency Care

The National Patient Safety Agency (NPSA) were approached by the National Association of Laryngectomy Clubs (NALC) with concerns relating to the management of laryngectomees when requiring emergency care.

Laryngectomy patients have particular needs in the event of requiring emergency care as a result of their altered anatomy and physiology. There are a few areas of potential risk:

- Inappropriate mouth and nose ventilation
- Tube difficulties
- Problems with mask neck seals
- Failure to appreciate risks of crusting and mucous plugging of the stoma
- Possibility of speaking valve inhalation

Approximately 900 laryngectomies are performed a year in the UK and there are an estimated 5000 laryngectomees living in the UK. There are also many patients in the UK with tracheostomies but not all these patients are neck breathers.

An article ‘Resuscitation of the neck breather-education in UK hospitals’ reported on a recent survey regarding the current training provided by UK hospital resuscitation officers (RTO’s). 91 Questionnaires were sent out to members of the UK Resuscitation Training Officers Association. The paper concluded that resuscitation training for the ‘neck breather’ was not practiced in all the hospitals surveyed.

A questionnaire was sent out to all members of the NALC to provide the NPSA with data relating to the numbers and types of incidents occurring. The vast majority of members of this association are patients who have had a laryngectomy, however some healthcare professionals are also members. Members were asked to let us know of any incidents that had occurred in emergency care and other aspects of care.

A total of one hundred and seventy one questionnaires were returned by the closing date. A further twenty eight have been received since but are not included in this report. Table 1 below shows the number of responses received, split by patient, NHS staff and other (e.g. patient relative). One hundred and forty seven of the questionnaires were completed by patients and fifteen by NHS staff.

<table>
<thead>
<tr>
<th>Individual</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient</td>
<td>147</td>
<td>85</td>
</tr>
<tr>
<td>NHS Staff</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>171</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 1

n of the neck breather – education in UK hospitals - unpublished
Table 2 below gives an overview of the 171 responses received.

## Summary

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of respondents who had to call an ambulance or needed emergency treatment while in hospital due to a problem with their stoma or difficulties in breathing</td>
<td>75</td>
<td>(44% of all responses)</td>
</tr>
<tr>
<td>Of these:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The total number of respondents who had to call an ambulance for themselves or on someone's behalf due to problems with their stoma or difficulties in breathing (a)</td>
<td>7</td>
<td>(4% of all responses)</td>
</tr>
<tr>
<td>The total number of respondents who needed emergency treatment while in hospital due to problems with their stoma or difficulties in breathing (b)</td>
<td>20</td>
<td>(12% of all responses)</td>
</tr>
<tr>
<td>The total number of respondents who had to call an ambulance and needed emergency treatment while in hospital due to a problem with their stoma or breathing difficulties (c)</td>
<td>48</td>
<td>(28% of all responses)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of respondents who had to call an ambulance due to a problem with their stoma or difficulties in breathing = (a)+(c)</td>
<td>55</td>
<td>(32% of all responses)</td>
</tr>
<tr>
<td>Of these:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The total number of instances where it was felt ambulance staff did not know the correct way to help a person with a laryngectomy</td>
<td>20</td>
<td>(36% of respondents who had to call an ambulance)</td>
</tr>
<tr>
<td>The total number of instances where it was felt ambulance staff did not have the correct equipment to help a person with a laryngectomy</td>
<td>26</td>
<td>(47% of respondents who had to call an ambulance)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of respondents who needed emergency treatment in hospital due to a problem with their stoma or difficulties in breathing = (b)+(c)</td>
<td>68</td>
<td>(40% of all responses)</td>
</tr>
<tr>
<td>Of these:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The total number of instances where it was felt hospital staff did not know the correct way to help a person with a laryngectomy</td>
<td>30</td>
<td>(44% of respondents who needed hospital treatment)</td>
</tr>
<tr>
<td>The total number of instances where it was felt hospital staff did not have the correct equipment to help a person with a laryngectomy</td>
<td>26</td>
<td>(38% of respondents who needed hospital treatment)</td>
</tr>
</tbody>
</table>

![Diagram showing the relationship between the number of respondents who had to call an ambulance, needed hospital treatment, and those who did both.](image)
Table 3 shows the percentage of respondents who required emergency care, either from ambulance staff or hospital staff.

<table>
<thead>
<tr>
<th>% of respondents who required emergency care</th>
</tr>
</thead>
<tbody>
<tr>
<td>% requiring care by ambulance staff or hospital staff</td>
</tr>
<tr>
<td>44%</td>
</tr>
</tbody>
</table>

Table 3

Fifty four of the respondents had previously required ambulance assistance due to problems with their stoma or difficulties in breathing. Out of these, five patients stated that the ambulance staff had to be told that they had a laryngectomy as it wasn’t immediately identified through assessment.

Table 4 shows that where emergency treatment was given by ambulance staff, 37% of respondents felt that ambulance staff did not know the correct way to help a patient with a laryngectomy. In addition, 48% felt that ambulance staff did not have the right equipment when emergency treatment was needed.

<table>
<thead>
<tr>
<th>'No' answers to Question 4 and 5 expressed as a percentage of all responses where an ambulance was called</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
</tr>
<tr>
<td>Question 4</td>
</tr>
<tr>
<td>37%</td>
</tr>
</tbody>
</table>

Question 4: Did the ambulance staff know the correct way to help a person with a laryngectomy?
Question 5: Did the ambulance staff have the right equipment to help you?
Twenty of the fifty five patients requiring ambulance assistance felt that the ambulance staff didn’t know how to manage their specific requirements. The majority of these concerns related to staff trying to give them oxygen via the nose and mouth or not knowing how to apply suction to the stoma. One patient reported that his partner repositioned an oxygen mask that was placed over the nose and mouth by paramedics to the stoma then the paramedics subsequently placed it over the nose and mouth again.

Twenty six of the patients requiring ambulance assistance felt that the ambulance staff didn’t have the right equipment available. The main concerns related to lack of:

- tracheostomy masks for delivering oxygen;
- suction units for clearing the stoma;
- tracheal forceps to remove mucous plugs.

One patient reported that one of the laryngectomy clubs had bought tracheostomy masks for all their patients out of club funds.

A more general comment received was that ambulance staff take laryngectomy patients to the nearest A&E department rather than one with an ENT department.

Sixty eight of the respondents had required emergency treatment while in hospital due to problems with their stoma or difficulties in breathing. Table 5 shows that where emergency treatment was needed while in hospital, 44% felt that hospital staff did not know the correct way to help a patient with a laryngectomy. In addition, 38% felt that hospital staff did not have the right equipment on the ward/department when emergency treatment was needed.

<table>
<thead>
<tr>
<th>'No' answers for Questions 11 and 12 expressed as a percentage of all responses where emergency treatment was needed while in hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
</tr>
<tr>
<td>100%</td>
</tr>
<tr>
<td>90%</td>
</tr>
<tr>
<td>80%</td>
</tr>
<tr>
<td>70%</td>
</tr>
<tr>
<td>60%</td>
</tr>
<tr>
<td>50%</td>
</tr>
<tr>
<td>40%</td>
</tr>
<tr>
<td>30%</td>
</tr>
<tr>
<td>20%</td>
</tr>
<tr>
<td>10%</td>
</tr>
<tr>
<td>0%</td>
</tr>
</tbody>
</table>

Question 11: Did the hospital staff know the correct way to help a patient with a laryngectomy?

Question 12: Did the hospital staff have the right equipment on the ward/department where you needed emergency treatment?
**Breakdown by Department**

Of the 68 responses where emergency treatment was needed in hospital (rows b and c), the type of Ward/Department where the patient was being treated is detailed in the first column of Table 6. Twenty seven of these cases had occurred in A&E.

<table>
<thead>
<tr>
<th>Question 8</th>
<th>Number of respondents requiring emergency treatment while in hospital due to problems with their stoma or difficulties in breathing</th>
<th>Number of respondents who felt hospital staff did not know the correct way to help a person with a tracheostomy</th>
<th>Number of respondents who felt hospital staff did not have the correct equipment to help a person with a tracheostomy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of Ward/Department being treated in</strong></td>
<td><strong>Number of respondents</strong></td>
<td><strong>Number of respondents</strong></td>
<td><strong>Number of respondents</strong></td>
</tr>
<tr>
<td>Accident &amp; Emergency</td>
<td>27</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>Wards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENT</td>
<td>15</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>General Ward</td>
<td>7</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Head &amp; Neck</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cardiac Ward</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Surgical Ward</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Special Throat Ward</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Medical Ward</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Eye Ward</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>X - Ray</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>High Dependency Unit</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Diagnostic Unit</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Unknown</td>
<td>6</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>68</strong></td>
<td><strong>30</strong></td>
<td><strong>26</strong></td>
</tr>
</tbody>
</table>

**Table 6**

**Breakdown by staff skills**

The second column of Table 6 shows the responses where it was felt that hospital staff did not know the correct way to help a person with a laryngectomy, split by the type of ward/department.

Thirty of the patients requiring emergency treatment in hospital felt that the hospital staff didn’t know how to manage their specific needs. Similar issues were raised as those with ambulance staff:

- lack of knowledge on how to unblock the stoma;
- Lack of knowledge on how to administer oxygen;
- Lack of competency in administering suction;
- Lack of understanding regarding humidification.

One incident reported by a carer stated that the patient had passed out in A&E and was unable to breathe. Despite being seen by doctors it was only when the carer insisted that an ENT nurse was called that a large plug of mucous that was stuck in the stoma was removed.

Another patient wrote of his experience when attending A&E with chest pains. ‘The nurse was going to give oxygen. I told the nurse that I was a neck breather and she then said put the mask on him and we’ll force the oxygen down.'
Breakdown by Available Equipment

The third column of Table 6 shows the responses where it was felt hospital staff did not have the correct equipment on the ward to help a person with a laryngectomy, split by the type of ward/department.

Equipment was again an issue in the hospital environment with twenty six patients raising concerns. Equipment that was specifically mentioned as not being available was:

- Tracheostomy masks;
- Suction equipment;
- Nebulisers;
- Connectors for tubing;
- Appropriately sized endotracheal tubes.

In some cases it appears that the appropriate equipment might have been available but the staff on duty didn’t know where to find it.

Several patients fed back general anxieties around requiring emergency care. One wrote that ‘I am very afraid of having to call emergency services or indeed needing admission to hospital. Apart from ENT departments or specialised wards very few staff understand our problems or requirements which we would be unable to communicate, if ill.

Feed back from healthcare professionals who completed the questionnaire focused on local experience of staff not knowing how to manage laryngectomy patients when requiring emergency care. Four members of staff described how laryngectomy patients had now been included in basic life support training but three stated that they were still trying to influence their local resuscitation committees to include laryngectomy patients in general training. One person suggested that it would be beneficial to have mannequins designed with stomas.

Staff also raised the issue of laryngectomy equipment that should be available on resuscitation trolleys and provided feedback on local initiatives that had been taken to ensure that this was available.

Joan Russell
Safer Practice Lead
Department of Safer Practice
National Patient Safety Agency
4-8 Maple Street
London W1T 5HD
Tel: 0207 9279519