Head and Neck Cancer – surgeon level data - first report

Queen Victoria Hospital NHS Foundation Trust
Foreword

This report for the first time presents data for individual surgeons relating to head and neck cancer surgery and outcomes in England.

Head and Neck cancer is an umbrella term encompassing several different diseases, including cancers of the larynx, oral cavity, oropharynx, hypopharynx, nasopharynx and major salivary glands. Each of these require different forms of treatment that include surgical, and non-surgical interventions such as chemotherapy or radiotherapy.

The publication of this information follows a commitment from NHS England to present consultant level data for 10 different surgical and clinical specialties as part of a drive within the NHS to improve the transparency of information available to the public. Surgeons whose data are presented here have agreed to publication of their patients’ outcomes and by doing so contributed to this important process.

The knowledge and guidance of the British Association of Head and Neck Oncologists (BAHNO) has been central to determining how this release of information can be presented in the most meaningful way for head and neck surgery for cancer.

This is why we have also presented information about other aspects of head and neck cancer patients’ care that are seen as key markers towards effective treatment, in addition to the number of procedures and mortalities requested to be published by NHS England. This includes information about the number of patients who return to the operating theatre after their initial operation, the number whose case is discussed by a diversely skilled group of health professionals (including nurses and doctors) known as a multi-disciplinary team, and cases where it has or has not been possible to remove all the cancer and surrounding tissue (which is often difficult in head and neck cancers due to their location) – known as “margins”.

The data released today also relates to the same time period as the established National Head and Neck Cancer Audit (DAHNO) in order to help build an even broader, joined up picture of head and neck cancer care in England. This means it is possible to consider surgeon level data alongside information about, for example, patient treatments and multi professional care delivery along the patient pathway over the same time period.

Although surgeon level information within this report is limited in scope, with short timescales for data validation and issues with the ease of data collection, it represents the first step in the journey of ensuring consultant level data can be collected, analysed and published in a way that is as complete and accurate as possible and is meaningful to the public, patients and clinical communities. It is important therefore that the development of this information involves these groups and we welcome their feedback.

Richard Wight, Consultant ENT surgeon & National Head and Neck Cancer Audit Chair
Executive Summary

About the report

The head and neck surgical community has actively embraced surgeon specific reporting in the expectation that this initial report can be built upon in future years, to include a wider range of surgical interventions, along the patient pathway, with the aim of improving patient outcomes.

Today’s report presents surgeon level data about new cases of head and neck cancer recorded in England between 1 November 2011 and 31 October 2012, where surgery was recorded as the first treatment received by the patient. Data presented is for those patients included in the eighth annual report from the National Head and Neck Audit (DAHNO), published on 26 July 2013, in order to help build an even broader, joined up picture of head and neck cancer care in England.

As the Audit was not originally designed to report at surgeon level, a new system was developed to allow individual surgeons to assign activity to themselves and validate the data included in the eighth annual audit report, which included 7195 procedures for 3200 patients in total.

Surgeons, who were given seven weeks to update data onto the system, supplemented information for just under half of these procedures (3409 of 7195, or 47 per cent). Some organisations had difficulties or were unable to supplement data about their activity. This should be taken into account when interpreting the data.

In addition to the number of procedures and mortalities requested to be published by NHS England, we have also presented information about other aspects of head and neck cancer patients’ care that are seen as key markers towards effective treatment. Much of the data presented today has been collected for the first time and is not fully complete, which should be considered when reading the report.

The bigger picture

The surgical procedures and related outcomes in today’s report represent only part of a head and neck surgeon’s workload. Today’s report does not consider, for example, diagnostic procedures for head and neck malignancy, surgery for benign disease, recurrent disease or surgical treatment after initial non-surgical therapies such as radiotherapy and chemotherapy. It is anticipated that more of a surgeon’s workload will be reported on at consultant level in the future, as this new process develops and evolves.
Data presented and initial findings

- **Major surgical procedures performed by surgeon**

  This is the count of cases with major procedures identified as being performed solely by an individual surgeon, or in combination with other surgeons. A wide range of procedures are performed by head and neck cancer surgeons and vary in complexity and frequency. More complex procedures are performed by teams of surgeons working together, which means treatment of the same patient may therefore be recorded for several different surgeons.

  - Of the 7,195 procedures included in the 2011-12 audit 6,311 (87.7 per cent) were assigned a surgeon GMC code (which identifies the individual surgeon).

- **Number of cases reported by surgeon that during the same hospital admission required an unplanned return to the operating theatre**

  Major head and neck surgery consists of a complex set of procedures, which carry a risk of complications. The complications are varied and will differ both in nature and in expected frequency with the specific procedure. Unplanned return to theatre is a proxy measure to reflect the likely occurrence of a significant complication during the hospital stay. This information has been obtained by surgeons entering data for each case where known.

  - Of the 3,200 major surgery cases 1,444 (45.1 per cent) had an unplanned return to theatre status recorded.
  - Of these 1,444 cases, 92 (6.4 per cent) had an unplanned return to theatre

- **Number of cases where surgical pathology results were discussed at a MDT**

  Discussion of the pathological findings after surgery at a multidisciplinary team meeting is considered an important standard of care, and all cases undergoing major resective surgery should be discussed.

  Head and Neck surgeons are part of this wider team which includes ear nose and throat, maxillo-facial and plastic surgeons, clinical oncologists, radiologists, pathologists, restorative dentists, specialist nurses, dietitians, and speech and language therapists. The MDT is responsible for the development of a comprehensive treatment plan for each patient. This is why we have presented information about the number of cases discussed at MDT in this report, with further information also presented in the eighth annual audit report.

  - Of the 3,192 cases having a resective procedure 2,748 (86.1 per cent) have surgical pathology discussed at MDT status
- Of these cases, 2,215 (80.6 per cent) were discussed by an MDT.

**Margin status of surgical cases**

In removing a cancer, the intent is to remove both the cancer and a “safety margin” of tissue to try to obtain complete local excision. Previous research has identified that surgical margins are one of the factors that influence long term outcome and that good practice where practicable is to obtain clear margins.

The width of the margin reported will vary with the surgical technique used, the anatomic site of the cancer and its extent. In some cases it is not practicable to obtain clear margins as this could put vital structures (such as major blood vessels) at risk.

Only cases having surgery applicable for the assessment of margins have been included in this measure.

- Of the 1,962 cases having surgery applicable for the assessment of margins 941 (48.0 per cent) have margin status recorded.
- Of these 941 cases, 844 (89.7 per cent) had a clear margin recorded.

The Expert Panel (a group of consultant head and neck surgeons from hospitals in England) have considered the findings from this report and do not feel that this indicator is a useful reflection of surgical practice. Resection margins are influenced by a wide variety of factors – by tumour stage (more likely to be positive with increasing tumour size), by surgical site (tongue cancers are more likely to be positive), by cancer type, by the need to spare essential structures, and where planned serial excision is performed to obtain clearance. Laboratory reporting is not aligned to the purposes of this audit and therefore may contribute to variation. It is therefore not planned to collect and report on these items in future. For the purposes of transparency however we have included these results this year.

**Count of reported cases who died from any cause within 30 days of major head and neck surgery**

The data confirms that major head and neck surgery in England and Wales is safe, with a low known mortality. According to the eighth National Head and Neck Cancer Audit annual report, 98.7 per cent of patients survived surgical intervention, this report can be found at [www.hscic.gov.uk/clinicalaudits](http://www.hscic.gov.uk/clinicalaudits). Many patients with head and neck cancer have other serious illnesses. Some patients may die shortly after their operation due to the complexity of surgery and complications from other conditions.

Where multiple surgeons have been involved in an operation, the outcome will be attributed to each of them.

- No individual surgeon had more than two deaths attributed to them.
- Due to the relatively low number of these specific procedures undertaken by each surgeon an increase in one or two deaths
can have a large impact on the surgeon’s mortality rate. To understand whether this variation is within the levels we would expect to see through natural variation we apply statistical control limits to the data and examine any cases which fall outside these limits. ‘Outliers’ are identified when we would only see the results as a result of random variation one in twenty times (p>0.95).

- No individual surgeon was recorded as an ‘outlier’ – meaning no individual surgeon had a higher than expected number of deaths attributed to them.
**Queen Victoria Hospital NHS Foundation Trust**

It has been necessary not to show, in some cases, the actual figure reported, to ensure that it is not possible to identify individual patients or information about individual patients.

<table>
<thead>
<tr>
<th>Actual value : 0, 1 or 2 patients</th>
<th>≤</th>
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</thead>
<tbody>
<tr>
<td>Actual value : All, or all except one or two patients</td>
<td>≥</td>
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</table>

<table>
<thead>
<tr>
<th>Trust/Surgeon</th>
<th>Number of patients having surgical procedure (A)</th>
<th>Unplanned return to theatre (B)</th>
<th>Surgical pathology discussed at MDT (C)</th>
<th>Clear</th>
<th>Involved</th>
<th>Not Recorded</th>
<th>Not Applicable</th>
<th>Mortality (E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLAND TOTAL</td>
<td>3200</td>
<td>92</td>
<td>2215 (80.6%)</td>
<td>844</td>
<td>97</td>
<td>1021</td>
<td>1238</td>
<td>33</td>
</tr>
<tr>
<td>Queen Victoria Hospital NHS Foundation Trust</td>
<td>37</td>
<td>3</td>
<td>37 (100.0%)</td>
<td>32</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2</td>
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<tr>
<td>C4193962 J Tighe</td>
<td>16</td>
<td>≤ 2</td>
<td>16 (100.0%)</td>
<td>12</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
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<tr>
<td>C6031313 B Bisase</td>
<td>11</td>
<td>≤ 2</td>
<td>11 (100.0%)</td>
<td>≥ 9</td>
<td>≤ 2</td>
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<tr>
<td>C4532686 P Norris</td>
<td>10</td>
<td>≤ 2</td>
<td>10 (100.0%)</td>
<td>≥ 8</td>
<td>≤ 2</td>
<td>0</td>
<td>0</td>
<td>1</td>
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<tr>
<td>C3493946 L Newman</td>
<td>9</td>
<td>≤ 2</td>
<td>9 (100.0%)</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
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<tr>
<td>C6094999 C Barbaccia</td>
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<td>8 (100.0%)</td>
<td>6</td>
<td>0</td>
<td>1</td>
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</tbody>
</table>

Please note that trust figures may not match the total for the surgeons shown under that trust. This could be for a number of reasons (see examples below):

1) A patient operated on by more than one surgeon will be counted once for each surgeon involved, and just once for the trust total. Similarly a patient that died within 30 days of surgery will be counted once for each surgeon involved in the initial surgery, but just once in the trust total.

2) In some cases trust totals include activity for surgeons who are not displayed at individual surgeon-level. Not all surgeons have been reported at surgeon-level. For example, surgeons with less than three recorded procedures have not been reported and some surgeons have not consented to having their data published at surgeon-level. However, their activity is still included in the trust and national totals.

3) Surgeons may have operated at more than one trust, but all their activity will be reported under the trust at which their latest activity took place. For the trust totals, this activity will be split across the relevant trusts.

4) Not all activity could be assigned to a surgeon, but all activity has been assigned to a trust. Activity will not have a surgeon attached if the GMC code...
was not available from HES and no GMC code was assigned to the patient during the data collection period.