



HEAD AND NECK CANCERS  
COMPARATIVE ANNUAL REPORT  
PATIENTS DIAGNOSED  
1 January – 31 December 2008

Final Report  
Sign off 31<sup>st</sup> August 2010

**Chair of SCAN Head & Neck Group: - Dr EJ Junor**

**Audit Facilitators:**

Valerie Findlay, SCAN Cancer Audit Facilitator (Lothian and Borders)  
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# HEAD AND NECK CANCERS In South East Scotland Cancer Network

## COMPARATIVE ANNUAL REPORT

PATIENTS DIAGNOSED 1 January – 31 December 2008

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## 1 Document History

| Version | Circulation to                                     | Date          | Comment  |
|---------|--|---------------|--|
| 1.0     | Dr E Junor (EJJ)                                   | 23/03/2010    | .  |
| 1.0     | Discussed with Valerie Findlay                     | 01/04/2010    | Various points noted and amendments to be made with a view to further discussion and circulation w/0 19 <sup>th</sup> April  |
| 1.0     | Discussed with EJJ                                 | 21/04/2010    | Previous amendments made. EJJ requested a revision of staging in Lothian. D&G requested to revise figures. D&G data rechecked in Lothian.                              |
| 1.1     | A Allen, SCAN Audit Manager (AA)                   | 26/04/2010    | Forwarded to AA for approval to circulate.   |
| 1.1     | SCAN H&N Group                                     | 03/05/2010    | First circulation to H&N group. Comments by 17 <sup>th</sup> May.  |
| 1.1     | SCAN H&N Group                                     | 17/05/2010    | No comments received from H&N group. Dr Junor resigned as Chair interrupting formal process for sign off by a review sub-group.  |
| 1.1     | A Allen, SCAN Audit Manager (AA)                   | 21/07/2010    | No formal sign off meeting due to vacancy in Chair of H&N group post. Under the circumstances, Dr Davies, SCAN Clinical Director, proposed sign off by Dr Junor alone. |
| 2.0     | SCAN H&N Group                                     | 18/08/2010    | Dr Junor agreed circulation for final sign off 31/08/2010  |
| 2.0     | A Allen, SCAN Audit Manager (AA)                   | 31/08/2010    | No comments received: Report finalised   |
| 2.0     | Clinical Governance                                | 01/09/2010    | Circulated to Clinical Governance contacts in SCAN   |
| 2.0     | Regional Cancer Planning Group                     | 13/10/2010    | Report circulated with agenda for meeting of the Regional cancer planning Group on 13/10/2010  |
| 2.0W    | <b>Preparation</b> for publication to SCAN website | 15/11/2010    | Report reviewed for disclosive material to assess the risk of personally identifiable information and circulated to lead clinician for comment.                        |
|         | Report lodged on SCAN website                      | December 2010 | Report amended by removing a comment made about a single patient.  |

# HEAD AND NECK CANCERS

## In South East Scotland Cancer Network

# COMPARATIVE ANNUAL REPORT

PATIENTS DIAGNOSED 1 January – 31 December 2008

## 2 FOREWORD

This report presents analysis of data collected on Head & Neck cancer patients diagnosed between 1 January and 31 December 2008 in the four health board regions comprising S E Scotland Cancer Network (SCAN) – Borders, Dumfries & Galloway, Fife, and Lothian.

### Basis of Analysis

There are currently no nationally agreed standards for Head & Neck cancer care.

Measures presented are those incorporated into a draft set of Clinical Effectiveness Measures for the SCAN Head & Neck Group. They incorporate some items within the SIGN Guideline on Management of Head & Neck Cancers (No: 90 Date published: Oct 2006) and items from the Core Standards for Cancer published by NHS Quality Improvement Scotland (NHSQIS) in March 2008. This report is intended to provide baseline data against which improvement can be measured in subsequent years.

### Patients included in the Report

Patients included: all patients diagnosed with Head & Neck Cancers 1 January – 31 December 2008

| SCAN Region         | Hospital  | Lead Clinician                 | Audit Support   |
|---------------------|---|--------------------------------|-----------------|
| Lothian             | St Johns Hospital at Howden, Royal Infirmary Edinburgh, Western General Hospital, EDI | Dr E Junor                     | Valerie Findlay |
| Dumfries & Galloway | D&G Royal Infirmary   | Mr B Joshi<br>Mr S Mahmood     | Kirsten Moffat  |
| Borders             | Borders General Hospital  | Mr S Moralee<br>Mr M Armstrong | Valerie Findlay |
| Fife                | Queen Margaret Hospital<br>Victoria Hospital  | MrJ Lyall                      | Laura Huey      |

### Data Collection

Patients were almost all identified through registration at the weekly regional multidisciplinary meeting, and through checks made against pathology listings. Data capture was dependent on casenote audit or review of various hospitals electronic records systems. Data was recorded on Access databases and eCase (in Dumfries & Galloway).

### Datasets and definitions

The dataset collected is the Scottish National Core Minimum Dataset as published by ISD on 1<sup>st</sup> July 2005. This may be viewed on the ISD website ([www.isdscotland.org/cancer](http://www.isdscotland.org/cancer))

Further information on the dataset and definitions can be obtained from Valerie Findlay, SCAN Cancer Audit Facilitator, SCAN Audit Office, c/o Dept of Clinical Oncology, Western General Hospital, Edinburgh. [valerie.findlay@luht.scot.nhs.uk](mailto:valerie.findlay@luht.scot.nhs.uk)

**Data Quality**

All hospitals in the region participate in the Quality Assurance programme provided by the National Services Scotland Information Services Division (ISD). QA of the full Head & Neck dataset has not yet been undertaken.

**Estimate of Case Ascertainment**

Overall case ascertainment is estimated at 94% when compared with a 5 year average of Scottish Cancer Registry data from 2003-2007.

**Process for reviewing and reporting the results**

The report was circulated to members of the SCAN Head & Neck Group in May 2010. The report was also reviewed by the Lead Clinician, with the assistance of the audit staff. Arising from these discussions a number of items of data were checked and amendments made so that there was agreement on the results shown. Issues raised by the results were considered by the Lead Clinician, and comments have been added to the report. The Lead Clinician agreed to circulate the report for final sign off by the SCAN group on 18 August 2010.

**Dissemination of report**

After final sign off the report was sent on 01/09/2010 to Clinical Governance groups within the four health boards for consideration of any action points. It was included on the circulation to the Regional Cancer Planning Group for its meeting on 13/10/2010.

In preparation for lodging the report on the SCAN website the contents were reviewed for Disclosive Material to assess for any risk of communication of personally-identifiable information about a data subject. A report comment was removed to avoid the risk of communicating personally-identifiable and possibly sensitive information about a data subject.

### 3 Comment by Dr EJ Junor- Chair SCAN Head and Neck Group

A key purpose of S E Scotland Cancer Network is to promote equity of treatment across its constituent health boards and I am pleased to present the SCAN Head & Neck Group Comparative Audit Report on data relating to patients newly-diagnosed in the year 2008 who were treated in one of the four constituent health board areas (Borders, Dumfries & Galloway, Fife, and Lothian, and the tertiary centre in Edinburgh).

Comparing results offers the opportunity to consider any specific points of difference, and comments within the report will draw attention to these. Allowance has to be made in reviewing results where numbers are small and variation may be due to chance.

The report also compares summary results between 2006 and 2007. It is important to demonstrate consistency and (where necessary) improvement in results over time.

We have been collecting the nationally-agreed dataset in SCAN health boards from 2004 and the process of collection and reporting is well-established. This report presents results based on very comprehensive coverage of the Head & Neck cancer population in the four health board areas. Results have been reviewed and checked locally by Head & Neck Cancer Lead Clinicians. This means that we can be confident in the accuracy of the results shown.

An important aim of the network is to monitor the quality of care received by Head & Neck cancer patients against nationally-agreed standards. At present there are no Scottish nationally-agreed clinical quality standards specific to Head & Neck cancers. In the absence of nationally-agreed standards we have developed some draft Clinical Effectiveness Measures based on SIGN Guideline on Management of Head & Neck Cancers (No: 90) and on items from the *Core Cancer Standards* which were published in March 2008 by NHS Quality Improvement Scotland (NHSQIS) ([www.healthquality.org](http://www.healthquality.org)).

Many results confirm our confidence in the quality of the service provided across SCAN.

- Our well-established regional multidisciplinary meeting now considers over 97% of patients and this allows for an integrated approach to their care.
- We are also pleased with a low rate of treatment-related mortality given that many of these patients have complex treatment needs

Some results have merited further investigation, for example:

- The reasons why some patients did not receive a CT of their chest (in line with SIGN Guideline 3.2) have been investigated and in most cases there are clinical reasons. Overall results have improved from 77.4% in 2006 to 96.0% in 2008.
- We have also measured our practice against the SIGN Guideline (7.3) about time between definitive surgery and completion of radiotherapy. This is a challenging guideline but ways of improving compliance with it are being actively sought and there has been a steady improvement over the past 3 years.

Outcome of treatment is the final and most important piece of information we need to incorporate into our reports and we need to look at ways of recording and reporting on this.

To make our results fully meaningful we in the SCAN Head & Neck Group are keen to compare our results with those from the other Scottish networks and also more widely through the DAHNO project supported by the NHS Information Centre for Health & Social Care ([www.ic.nhs.uk](http://www.ic.nhs.uk)). I hope that the programme of work instigated by the recently-formed National Cancer Quality Group will support us in achieving these aims.

Elizabeth Junor  
Consultant Oncologist  
July 2010

## 4 SUMMARY OF RESULTS

### Achievement against SCAN Head & Neck Group Draft Clinical Effectiveness Measures (April 2009)

| Table | Measure   | Target (%) | Lothian | Borders | Fife | D&G  | SCAN 2008 | SCAN 2007 | SCAN 2006 |
|-------|---|------------|---------|---------|------|------|-----------|-----------|-----------|
| 1     | Number of patients  | n/a        | 149     | 13      | 62   | 23   | 247       | 267       | 243       |
| 4     | TNM recorded (%)  | 100        | 89.9    | 92.3    | 100  | 75   | 97.9      | 95.0      | 97.1      |
| 8     | Discussed at MDM (%)  | 100        | 97.3    | 92.3    | 100  | 91.7 | 97.2      | 99.2      | 99.1      |
| 10    | CT/ Chest (%)   | 100        | 94.6    | 92.3    | 98.4 | 100  | 96.0      | 88.4      | 77.4      |
| 11    | CT/MRI Head & Neck (%)  | 100        | 100     | 100     | 100  | 100  | 100       | 96.5      | 86.4      |
| 13    | Max 11 weeks from surgery to completion of radiotherapy (%)   | 100        | 31.4    | 0       | 50   | 50   | 37.3      | 29.6      | 25.7      |
| 14    | Treatment related mortality (< 31 days from definitive surgery) (%)   | n/a        | 1.5     | 0       | 0    | 0    | 0.9       | 0         | 0         |
| 16    | patients <70years old with stage 3 or 4 disease without primary surgery should be treated with chemoradiotherapy(%) | 100        | 88.5    | 100     | 87.5 | 100  | 89.7      | 97.8      | 83.0      |

#### Key

|                   |                  |                |
|-------------------|------------------|----------------|
|                   |                  |                |
| 100-95% of target | 96-75% of target | >75% of target |

Note: 7 patients from D&G were treated in Glasgow although they were diagnosed in the SCAN region. Their treatment is included in this report but is not a true reflection of the service given in SCAN.

## 5 RESULTS

### Patient numbers and estimate of case ascertainment

Table 1

| Health Board        | n          | Scottish Cancer Registry (annual average 2003-2007) | Estimate of case ascertainment | Male | Female |
|---------------------|------------|---|--------------------------------|------|--------|
| Lothian             | 149        | 143   | 104%                           | 94   | 55     |
| Borders             | 13         | 19  | 68%                            | 7    | 6      |
| Fife                | 62         | 68  | 91%                            | 47   | 15     |
| Dumfries & Galloway | 23         | 34  | 68%                            | 17   | 6      |
| <b>SCAN</b>         | <b>247</b> | 264   | <b>94%</b>                     | 165  | 82     |

Source: Scottish Cancer Registration figures 2003-2007

As numbers for Head and Neck cancer patients are relatively small an average of Cancer Registration figures was taken from 2003 -2007 to provide a more accurate estimate of case ascertainment for 2008. Variations in estimates may be accounted for by the following differences between audited cohorts: cancer registration figures use "Incidence Date" rather than "Date of Diagnosis" and also include patients diagnosed at post mortem, Dumfries and Galloway may have patients who although resident in Scotland will be diagnosed in England and are therefore not included in the audit. Further information on Cancer Registration figures can be found on the ISD website <http://www.isdscotland.org/isd/183.html>

### Frequencies of age at date of diagnosis of Head and Neck cancer

Table 2

| Age Group | Lothian |              | Borders |              | Fife |              | D&G |              | SCAN |              |
|-----------|---------|--------------|---------|--------------|------|--------------|-----|--------------|------|--------------|
| <20       | 0       | 0.0%         | 0       | 0.0%         | 0    | 0.0%         | 0   | 0.0%         | 0    | 0.0%         |
| 20-29     | 2       | 1.3%         | 0       | 0.0%         | 0    | 0.0%         | 1   | 4.3%         | 3    | 1.2%         |
| 30-39     | 6       | 4.0%         | 0       | 0.0%         | 4    | 6.5%         | 1   | 4.3%         | 11   | 4.5%         |
| 40-49     | 15      | 10.1%        | 0       | 0.0%         | 2    | 3.2%         | 4   | 17.4%        | 21   | 8.5%         |
| 50-59     | 25      | 16.8%        | 2       | 15.4%        | 6    | 9.7%         | 3   | 13.0%        | 36   | 14.6%        |
| 60-69     | 49      | <b>32.9%</b> | 1       | 7.7%         | 25   | <b>40.3%</b> | 5   | 21.7%        | 80   | <b>32.4%</b> |
| 70-79     | 35      | 23.5%        | 6       | <b>46.2%</b> | 22   | 35.5%        | 6   | <b>26.1%</b> | 69   | 27.9%        |
| 80-89     | 16      | 10.7%        | 4       | 30.8%        | 3    | 4.8%         | 2   | 8.7%         | 25   | 10.1%        |
| >89       | 1       | 0.7%         | 0       | 0.0%         | 0    | 0.0%         | 1   | 4.3%         | 2    | 0.8%         |
| Total     | 149     | 100.0%       | 13      | 100.0%       | 62   | 100.0%       | 23  | 100.0%       | 247  | 100.0%       |



**Breakdown by cancer site**

Table 3

| Cancer site                    | Lothian |        | Borders |        | Fife |        | D&G |        | SCAN |        |
|--------------------------------|---------|--------|---------|--------|------|--------|-----|--------|------|--------|
|                                |         |        |         |        |      |        |     |        |      |        |
| <b>Oral Cavity &amp; Lip</b>   | 44      | 29.5%  | 5       | 38.5%  | 13   | 21.0%  | 8   | 34.8%  | 70   | 28.3%  |
| <b>Oropharynx</b>              | 34      | 22.8%  | 2       | 15.4%  | 18   | 29.0%  | 2   | 8.7%   | 56   | 22.7%  |
| <b>Nasopharynx</b>             | 4       | 2.7%   | 0       | 0.0%   | 2    | 3.2%   | 2   | 8.7%   | 8    | 3.2%   |
| <b>Hypopharynx</b>             | 14      | 9.4%   | 1       | 7.7%   | 2    | 3.2%   | 1   | 4.3%   | 18   | 7.3%   |
| <b>Larynx</b>                  | 36      | 24.2%  | 4       | 30.8%  | 25   | 40.3%  | 6   | 26.1%  | 71   | 28.7%  |
| <b>Nose and ear</b>            | 6       | 4.0%   | 0       | 0.0%   | 0    | 0.0%   | 2   | 8.7%   | 8    | 3.2%   |
| <b>Paranasal sinuses</b>       | 0       | 0.0%   | 0       | 0.0%   | 1    | 1.6%   | 1   | 4.3%   | 2    | 0.8%   |
| <b>Major salivary glands</b>   | 5       | 3.4%   | 0       | 0.0%   | 1    | 1.6%   | 0   | 0.0%   | 6    | 2.4%   |
| <b>Minor salivary glands</b>   | 0       | 0.0%   | 0       | 0.0%   | 0    | 0.0%   | 0   | 0.0%   | 0    | 0.0%   |
| <b>Other ill defined sites</b> | 0       | 0.0%   | 0       | 0.0%   | 0    | 0.0%   | 1   | 4.3%   | 1    | 0.4%   |
| <b>Not recorded</b>            | 0       | 0.0%   | 0       | 0.0%   | 0    | 0.0%   | 0   | 0.0%   | 0    | 0.0%   |
| <b>Not yet Known</b>           | 6       | 4.0%   | 1       | 7.7%   | 0    | 0.0%   | 0   | 0.0%   | 7    | 2.8%   |
| <b>Total</b>                   | 149     | 100.0% | 13      | 100.0% | 62   | 100.0% | 23  | 100.0% | 247  | 100.0% |

Note: Depending on the location of the lesion some patients with lip cancer are reported by the skin audit team although often reviewed and treated by the Head and Neck oncology team. The Oral Cavity and Lip total for Fife includes 1 patient with lip cancer treated and audited by the H&N group in Fife.

**Tumour site and staging**

Table 4

| <b><u>Oral Cavity &amp; Lip</u></b> | Lothian   | Borders  | Fife      | D&G      | SCAN      |
|-------------------------------------|-----------|----------|-----------|----------|-----------|
| T1                                  | 9         | 2        | 3         | 1        | 15        |
| T2                                  | 21        | 2        | 4         | 3        | 30        |
| T3                                  | 2         | 0        | 1         | 0        | 3         |
| T4                                  | 11        | 1        | 3         | 2        | 17        |
| Not applicable                      | 0         | 0        | 0         | 0        | 0         |
| Not recorded                        | 1         | 0        | 2         | 2        | 5         |
| <b>Total</b>                        | <b>44</b> | <b>5</b> | <b>13</b> | <b>8</b> | <b>70</b> |

Note- Fife total includes one patient with Lip cancer

| <b><u>Oropharynx</u></b> | Lothian   | Borders  | Fife      | D&G      | SCAN      |
|--------------------------|-----------|----------|-----------|----------|-----------|
| T1                       | 4         | 0        | 4         | 1        | 9         |
| T2                       | 12        | 0        | 2         | 0        | 14        |
| T3                       | 7         | 0        | 5         | 0        | 12        |
| T4                       | 10        | 2        | 6         | 1        | 19        |
| Not applicable           | 0         | 0        | 0         | 0        | 0         |
| Not recorded             | 1         | 0        | 1         | 0        | 2         |
| <b>Total</b>             | <b>34</b> | <b>2</b> | <b>18</b> | <b>2</b> | <b>56</b> |

| <b><u>Nasopharynx</u></b> | Lothian  | Borders  | Fife     | D&G      | SCAN     |
|---------------------------|----------|----------|----------|----------|----------|
| T1                        | 0        | 0        | 0        | 0        | 0        |
| T2                        | 1        | 0        | 1        | 1        | 3        |
| T3                        | 2        | 0        | 0        | 0        | 2        |
| T4                        | 1        | 0        | 1        | 1        | 3        |
| Not applicable            | 0        | 0        | 0        | 0        | 0        |
| Not recorded              | 0        | 0        | 0        | 0        | 0        |
| <b>Total</b>              | <b>4</b> | <b>0</b> | <b>2</b> | <b>2</b> | <b>8</b> |

| <b><u>Hypopharynx</u></b> | Lothian   | Borders  | Fife     | D&G      | SCAN      |
|---------------------------|-----------|----------|----------|----------|-----------|
| T1                        | 1         | 0        | 0        | 0        | 1         |
| T2                        | 4         | 0        | 0        | 0        | 4         |
| T3                        | 5         | 0        | 1        | 0        | 6         |
| T4                        | 4         | 1        | 0        | 1        | 6         |
| Not applicable            | 0         | 0        | 0        | 0        | 0         |
| Not recorded              | 0         | 0        | 1        | 0        | 1         |
| <b>Total</b>              | <b>14</b> | <b>1</b> | <b>2</b> | <b>1</b> | <b>18</b> |

**Tumour site and staging cont.**

| <b>Larynx (total)</b> | Lothian   | Borders  | Fife      | D&G      | SCAN      |
|-----------------------|-----------|----------|-----------|----------|-----------|
| <b>Tis</b>            | 2         | 0        | 0         | 0        | 2         |
| T1                    | 11        | 3        | 6         | 2        | 22        |
| T2                    | 10        | 0        | 6         | 2        | 18        |
| T3                    | 4         | 0        | 6         | 2        | 12        |
| T4                    | 8         | 1        | 7         | 0        | 16        |
| Not applicable        | 0         | 0        | 0         | 0        | 0         |
| Not recorded          | 1         | 0        | 0         | 0        | 1         |
| <b>Total</b>          | <b>36</b> | <b>4</b> | <b>25</b> | <b>6</b> | <b>71</b> |

***Larynx subsites***

| <b>supraglottis</b>       | Lothian   | Borders  | Fife     | D&G      | SCAN      |
|---------------------------|-----------|----------|----------|----------|-----------|
| <b>Tis</b>                | 0         | 0        | 0        | 0        | 0         |
| T1                        | 2         | 0        | 1        | 0        | 3         |
| T2                        | 6         | 0        | 3        | 0        | 9         |
| T3                        | 1         | 0        | 1        | 0        | 2         |
| T4                        | 3         | 0        | 4        | 0        | 7         |
| Not applicable            | 0         | 0        | 0        | 0        | 0         |
| Not recorded              | 0         | 0        | 0        | 0        | 0         |
| <b>Total Supraglottis</b> | <b>12</b> | <b>0</b> | <b>9</b> | <b>0</b> | <b>21</b> |

| <b>glottis</b>       | Lothian   | Borders  | Fife      | D&G      | SCAN      |
|----------------------|-----------|----------|-----------|----------|-----------|
| <b>Tis</b>           | 2         | 0        | 0         | 0        | 2         |
| T1                   | 8         | 3        | 5         | 2        | 18        |
| T2                   | 4         | 0        | 3         | 2        | 9         |
| T3                   | 2         | 0        | 5         | 2        | 9         |
| T4                   | 5         | 1        | 2         | 0        | 8         |
| Not applicable       | 0         | 0        | 0         | 0        | 0         |
| Not recorded         | 1         | 0        | 0         | 0        | 1         |
| <b>Total Glottis</b> | <b>22</b> | <b>4</b> | <b>15</b> | <b>6</b> | <b>47</b> |

| <b>subglottis</b>          | Lothian  | Borders  | Fife     | D&G      | SCAN     |
|----------------------------|----------|----------|----------|----------|----------|
| <b>Tis</b>                 | 0        | 0        | 0        | 0        | 0        |
| T1                         | 1        | 0        | 0        | 0        | 1        |
| T2                         | 0        | 0        | 0        | 0        | 0        |
| T3                         | 0        | 0        | 0        | 0        | 0        |
| T4                         | 0        | 0        | 1        | 0        | 1        |
| Not applicable             | 0        | 0        | 0        | 0        | 0        |
| Not recorded               | 0        | 0        | 0        | 0        | 0        |
| <b>Total Subglottis</b>    | <b>1</b> | <b>0</b> | <b>1</b> | <b>0</b> | <b>2</b> |
| <b>Overlapping Lesions</b> | 1        | 0        | 0        | 0        | 1        |

**Tumour site and staging cont.**

| <b><u>Nose and ear</u></b> | <b>Lothian</b> | <b>Borders</b> | <b>Fife</b> | <b>D&amp;G</b> | <b>SCAN</b> |
|----------------------------|----------------|----------------|-------------|----------------|-------------|
| T1                         | 1              | 0              | 0           | 1              | 2           |
| T2                         | 2              | 0              | 0           | 0              | 2           |
| T3                         | 0              | 0              | 0           | 0              | 0           |
| T4                         | 3              | 0              | 0           | 0              | 3           |
| Not applicable             | 0              | 0              | 0           | 0              | 0           |
| Not recorded               | 0              | 0              | 0           | 1              | 1           |
| <b>Total</b>               | <b>6</b>       | <b>0</b>       | <b>0</b>    | <b>2</b>       | <b>8</b>    |

| <b><u>Paranasal Sinuses</u></b> | <b>Lothian</b> | <b>Borders</b> | <b>Fife</b> | <b>D&amp;G</b> | <b>SCAN</b> |
|---------------------------------|----------------|----------------|-------------|----------------|-------------|
| T1                              | 0              | 0              | 0           | 0              | 0           |
| T2                              | 0              | 0              | 0           | 0              | 0           |
| T3                              | 0              | 0              | 0           | 0              | 0           |
| T4                              | 0              | 0              | 1           | 1              | 2           |
| Not applicable                  | 0              | 0              | 0           | 0              | 0           |
| Not recorded                    | 0              | 0              | 0           | 0              | 0           |
| <b>Total</b>                    | <b>0</b>       | <b>0</b>       | <b>1</b>    | <b>1</b>       | <b>2</b>    |

| <b><u>Major Salivary Glands</u></b> | <b>Lothian</b> | <b>Borders</b> | <b>Fife</b> | <b>D&amp;G</b> | <b>SCAN</b> |
|-------------------------------------|----------------|----------------|-------------|----------------|-------------|
| T1                                  | 2              | 0              | 1           | 0              | 3           |
| T2                                  | 0              | 0              | 0           | 0              | 0           |
| T3                                  | 1              | 0              | 0           | 0              | 1           |
| T4                                  | 2              | 0              | 0           | 0              | 2           |
| Not applicable                      | 0              | 0              | 0           | 0              | 0           |
| Not recorded                        | 0              | 0              | 0           | 0              | 0           |
| <b>Total</b>                        | <b>5</b>       | <b>0</b>       | <b>1</b>    | <b>0</b>       | <b>6</b>    |

| <b><u>Minor Salivary Glands</u></b> | <b>Lothian</b> | <b>Borders</b> | <b>Fife</b> | <b>D&amp;G</b> | <b>SCAN</b> |
|-------------------------------------|----------------|----------------|-------------|----------------|-------------|
| T1                                  | 0              | 0              | 0           | 0              | 0           |
| T2                                  | 0              | 0              | 0           | 0              | 0           |
| T3                                  | 0              | 0              | 0           | 0              | 0           |
| T4                                  | 0              | 0              | 0           | 0              | 0           |
| Not applicable                      | 0              | 0              | 0           | 0              | 0           |
| Not recorded                        | 0              | 0              | 0           | 0              | 0           |
| <b>Total</b>                        | <b>0</b>       | <b>0</b>       | <b>0</b>    | <b>0</b>       | <b>0</b>    |

**Tumour site and staging cont.**

| <b><u>Other ill defined sites</u></b> | <b>Lothian</b> | <b>Borders</b> | <b>Fife</b> | <b>D&amp;G</b> | <b>SCAN</b> |
|---------------------------------------|----------------|----------------|-------------|----------------|-------------|
| T1                                    | 0              | 0              | 0           | 0              | 0           |
| T2                                    | 0              | 0              | 0           | 0              | 0           |
| T3                                    | 0              | 0              | 0           | 0              | 0           |
| T4                                    | 0              | 0              | 0           | 0              | 0           |
| Not applicable                        | 0              | 0              | 0           | 0              | 0           |
| Not recorded                          | 0              | 0              | 0           | 1              | 1           |
| <b>Total</b>                          | <b>0</b>       | <b>0</b>       | <b>0</b>    | <b>1</b>       | <b>1</b>    |
| <b>Unknown Primary</b>                | <b>Lothian</b> | <b>Borders</b> | <b>Fife</b> | <b>D&amp;G</b> | <b>SCAN</b> |
|                                       | 6              | 1              | 0           | 0              | 7           |
| <b>Total each region</b>              | <b>149</b>     | <b>13</b>      | <b>62</b>   | <b>23</b>      | <b>247</b>  |

Note: In Lothian there are 6 unknown primary tumours which cannot be fully staged. In Borders there is 1 patient with an unknown primary without complete staging.

**Overall clinical stage**

Table 5a

Lothian n=149

|                 | Oral cavity | Oro pharynx | Naso pharynx | Hypo pharynx | Larynx (total) | Paranasal Sinus | Minor Salivary glands | Major Salivary Glands | Ill defined sites | Lip      | Nose and Ear | Unknown primary | Total      | % of Total  |
|-----------------|-------------|-------------|--------------|--------------|----------------|-----------------|-----------------------|-----------------------|-------------------|----------|--------------|-----------------|------------|-------------|
| Stage 0         | 0           | 0           | 0            | 0            | 2              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0               | 2          | 1.3         |
| Stage 1         | 9           | 4           | 0            | 1            | 11             | 0               | 0                     | 2                     | 0                 | 0        | 1            | 0               | 28         | 18.8        |
| Stage 2         | 12          | 4           | 0            | 0            | 8              | 0               | 0                     | 0                     | 0                 | 0        | 1            | 0               | 25         | 16.8        |
| Stage 3         | 6           | 4           | 1            | 4            | 4              | 0               | 0                     | 1                     | 0                 | 0        | 1            | 0               | 21         | 14.1        |
| Stage 4 (total) | 16          | 21          | 3            | 9            | 10             | 0               | 0                     | 2                     | 0                 | 0        | 3            | 0               | 64         | <b>43.0</b> |
| Stage 4a        | 16          | 20          | 1            | 8            | 8              | 0               | 0                     | 2                     | 0                 | 0        | 3            | 0               | 57         | 38.3        |
| Stage 4b        | 0           | 1           | 1            | 0            | 2              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0               | 4          | 2.7         |
| Stage 4c        | 0           | 0           | 1            | 1            | 0              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0               | 2          | 1.3         |
| not measured    | 1           | 1           | 0            | 0            | 1              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 6               | 9          | 6.0         |
| not recorded    | 0           | 0           | 0            | 0            | 0              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0               | 0          | 0.0         |
| <b>Total</b>    | <b>44</b>   | <b>34</b>   | <b>4</b>     | <b>14</b>    | <b>36</b>      | <b>0</b>        | <b>0</b>              | <b>5</b>              | <b>0</b>          | <b>0</b> | <b>6</b>     | <b>6</b>        | <b>149</b> | 100.0       |

Table 5b

Fife n=62

|                 | Oral cavity | Oro pharynx | Naso pharynx | Hypo pharynx | Larynx (total) | Para nasal Sinus | Minor Salivary glands | Major Salivary Glands | Ill defined sites | Lip      | Nose and Ear | Not Yet Known | Total     | % of Total  |
|-----------------|-------------|-------------|--------------|--------------|----------------|------------------|-----------------------|-----------------------|-------------------|----------|--------------|---------------|-----------|-------------|
| Stage 0         | 0           | 0           | 0            | 0            | 0              | 0                | 0                     | 0                     | 0                 | 0        | 0            | 0             | 0         | 0.0         |
| Stage 1         | 2           | 1           | 0            | 0            | 6              | 0                | 0                     | 0                     | 0                 | 1        | 0            | 0             | 10        | 16.1        |
| Stage 2         | 2           | 0           | 0            | 0            | 5              | 0                | 0                     | 0                     | 0                 | 0        | 0            | 0             | 7         | 11.3        |
| Stage 3         | 1           | 6           | 0            | 1            | 5              | 0                | 0                     | 0                     | 0                 | 0        | 0            | 0             | 13        | 21.0        |
| Stage (4 total) | 5           | 10          | 1            | 0            | 9              | 1                | 0                     | 1                     | 0                 | 0        | 0            | 0             | 27        | <b>43.5</b> |
| Stage 4a        | 5           | 7           | 0            | 0            | 7              | 1                | 0                     | 1                     | 0                 | 0        | 0            | 0             | 21        | 33.9        |
| Stage 4b        | 0           | 3           | 1            | 0            | 2              | 0                | 0                     | 0                     | 0                 | 0        | 0            | 0             | 6         | 9.7         |
| Stage 4c        | 0           | 0           | 0            | 0            | 0              | 0                | 0                     | 0                     | 0                 | 0        | 0            | 0             | 0         | 0.0         |
| Not measured    | 2           | 1           | 1            | 1            | 0              | 0                | 0                     | 0                     | 0                 | 0        | 0            | 0             | 5         | 8.1         |
| Not recorded    | 0           | 0           | 0            | 0            | 0              | 0                | 0                     | 0                     | 0                 | 0        | 0            | 0             | 0         | 0.0         |
| <b>Total</b>    | <b>12</b>   | <b>18</b>   | <b>2</b>     | <b>2</b>     | <b>25</b>      | <b>1</b>         | <b>0</b>              | <b>1</b>              | <b>0</b>          | <b>1</b> | <b>0</b>     | <b>0</b>      | <b>62</b> | 100.0       |

Note –Fife:Table 3 on page 9 includes combined total for oral cavity and lip.

**Overall clinical stage cont.**

Table 5c

**Borders n=13**

|                 | Oral cavity | Oropharynx | Nasopharynx | Hypopharynx | Larynx (total) | Paranasal Sinus | Minor Salivary glands | Major Salivary Glands | Ill defined sites | Lip      | Nose and Ear | Not Yet Known | Total     | % of Total  |
|-----------------|-------------|------------|-------------|-------------|----------------|-----------------|-----------------------|-----------------------|-------------------|----------|--------------|---------------|-----------|-------------|
| Stage 0         | 0           | 0          | 0           | 0           | 0              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0             | 0         | 0.0         |
| Stage 1         | 2           | 0          | 0           | 0           | 3              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0             | 5         | 38.5        |
| Stage 2         | 1           | 0          | 0           | 0           | 0              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0             | 1         | 7.7         |
| Stage 3         | 1           | 0          | 0           | 0           | 0              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0             | 1         | 7.7         |
| Stage 4 (total) | 1           | 2          | 0           | 1           | 1              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0             | 5         | <b>38.5</b> |
| Stage 4a        | 1           | 2          | 0           | 1           | 1              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0             | 5         | 30.8        |
| Stage 4b        | 0           | 0          | 0           | 0           | 0              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0             | 0         | 0.0         |
| Stage 4c        | 0           | 0          | 0           | 0           | 0              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0             | 0         | 0.0         |
| Not measured    | 0           | 0          | 0           | 0           | 0              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 1             | 1         | 7.7         |
| Not recorded    | 0           | 0          | 0           | 0           | 0              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0             | 0         | 0.0         |
| <b>Total</b>    | <b>5</b>    | <b>2</b>   | <b>0</b>    | <b>1</b>    | <b>4</b>       | <b>0</b>        | <b>0</b>              | <b>0</b>              | <b>0</b>          | <b>0</b> | <b>0</b>     | <b>1</b>      | <b>13</b> | <b>100</b>  |

Table 5d

**Dumfries and Galloway n=23**

|                 | Oral cavity | Oropharynx | Nasopharynx | Hypopharynx | Larynx (total) | Paranasal Sinus | Minor Salivary glands | Major Salivary Glands | Ill defined sites | Lip      | Nose and Ear | Not Yet Known | Total     | % of Total   |
|-----------------|-------------|------------|-------------|-------------|----------------|-----------------|-----------------------|-----------------------|-------------------|----------|--------------|---------------|-----------|--------------|
| Stage 0         | 0           | 0          | 0           | 0           | 0              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0             | 0         | 0.0          |
| Stage 1         | 1           | 0          | 0           | 0           | 2              | 0               | 0                     | 0                     | 0                 | 0        | 1            | 0             | 4         | 17.4         |
| Stage 2         | 2           | 0          | 0           | 0           | 2              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0             | 4         | 17.4         |
| Stage 3         | 0           | 0          | 0           | 0           | 2              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0             | 2         | 8.7          |
| Stage 4 (total) | 2           | 2          | 2           | 1           | 0              | 1               | 0                     | 0                     | 0                 | 0        | 0            | 0             | 8         | <b>34.8</b>  |
| Stage 4a        | 2           | 1          | 1           | 0           | 0              | 1               | 0                     | 0                     | 0                 | 0        | 0            | 0             | 5         | 21.7         |
| stage 4b        | 0           | 1          | 0           | 1           | 0              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0             | 2         | 8.7          |
| Stage 4c        | 0           | 0          | 1           | 0           | 0              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0             | 1         | 4.3          |
| Not measured    | 0           | 0          | 0           | 0           | 0              | 0               | 0                     | 0                     | 0                 | 0        | 0            | 0             | 0         | 0.0          |
| Not recorded    | 3           | 0          | 0           | 0           | 0              | 0               | 0                     | 0                     | 1                 | 0        | 1            | 0             | 5         | 21.7         |
| <b>Total</b>    | <b>8</b>    | <b>2</b>   | <b>2</b>    | <b>1</b>    | <b>6</b>       | <b>1</b>        | <b>0</b>              | <b>0</b>              | <b>1</b>          | <b>0</b> | <b>2</b>     | <b>0</b>      | <b>23</b> | <b>100.0</b> |

**Overall clinical stage cont.**

Table 5e

**SCAN n=247**

|                 | Oral cavity | Oro pharynx | Naso pharynx | Hypo pharynx | Larynx (total) | Para nasal Sinus | Minor Salivary glands | Major Salivary Glands | Ill defined sites | Lip      | Nose and Ear | Not Yet Known | Total      | % of Total  |
|-----------------|-------------|-------------|--------------|--------------|----------------|------------------|-----------------------|-----------------------|-------------------|----------|--------------|---------------|------------|-------------|
| Stage 0         | 0           | 0           | 0            | 0            | 2              | 0                | 0                     | 0                     | 0                 | 0        | 0            | 0             | 2          | 0.8         |
| Stage 1         | 14          | 5           | 0            | 1            | 22             | 0                | 0                     | 2                     | 0                 | 1        | 2            | 0             | 47         | 19.0        |
| Stage 2         | 17          | 4           | 0            | 0            | 15             | 0                | 0                     | 0                     | 0                 | 0        | 1            | 0             | 37         | 15.0        |
| Stage 3         | 8           | 10          | 1            | 5            | 11             | 0                | 0                     | 1                     | 0                 | 0        | 1            | 0             | 37         | 15.0        |
| stage 4 (total) | 24          | 35          | 6            | 11           | 20             | 2                | 0                     | 3                     | 0                 | 0        | 3            | 0             | 104        | <b>42.1</b> |
| Stage 4a        | 24          | 30          | 2            | 9            | 16             | 2                | 0                     | 3                     | 0                 | 0        | 3            | 0             | 89         | 35.2        |
| Stage 4b        | 0           | 5           | 2            | 1            | 4              | 0                | 0                     | 0                     | 0                 | 0        | 0            | 0             | 12         | 4.9         |
| Stage 4c        | 0           | 0           | 2            | 1            | 0              | 0                | 0                     | 0                     | 0                 | 0        | 0            | 0             | 3          | 1.2         |
| not measured    | 3           | 2           | 1            | 1            | 1              | 0                | 0                     | 0                     | 0                 | 0        | 0            | 7             | 15         | 6.1         |
| not recorded    | 3           | 0           | 0            | 0            | 0              | 0                | 0                     | 0                     | 1                 | 0        | 1            | 0             | 5          | 2.0         |
| <b>Total</b>    | <b>69</b>   | <b>56</b>   | <b>8</b>     | <b>18</b>    | <b>71</b>      | <b>2</b>         | <b>0</b>              | <b>6</b>              | <b>1</b>          | <b>1</b> | <b>8</b>     | <b>7</b>      | <b>247</b> | <b>100</b>  |

Note: For Fife Table 3 on page 9 includes combined total for oral cavity and lip.



**Comparison of stage at presentation across health boards of the five most frequent Head and Neck cancers**

Table 6

| Stage at presentation | Oral cavity |        |        |        | Oropharynx |        |        |        | Nasopharynx |        |      |        | Hypopharynx |        |        |        | Larynx  |        |        |        |        |
|-----------------------|-------------|--------|--------|--------|------------|--------|--------|--------|-------------|--------|------|--------|-------------|--------|--------|--------|---------|--------|--------|--------|--------|
|                       | Lothian     | Fife   | BGH    | D&G    | Lothian    | Fife   | BGH    | D&G    | Lothian     | Fife   | BGH  | D&G    | Lothian     | Fife   | BGH    | D&G    | Lothian | Fife   | BGH    | D&G    |        |
| Stage 0               | 0.0%        | 0.0%   | 0.0%   | 0.0%   | 0.0%       | 0.0%   | 0.0%   | 0.0%   | 0.0%        | 0.0%   | 0.0% | 0.0%   | 0.0%        | 0.0%   | 0.0%   | 0.0%   | 0.0%    | 5.6%   | 0.0%   | 0.0%   | 0.0%   |
| Stage 1               | 20.5%       | 16.7%  | 40.0%  | 12.5%  | 11.8%      | 5.6%   | 0.0%   | 0.0%   | 0.0%        | 0.0%   | 0.0% | 0.0%   | 7.1%        | 0.0%   | 0.0%   | 0.0%   | 0.0%    | 30.6%  | 24.0%  | 75.0%  | 33.3%  |
| Stage 2               | 27.3%       | 16.7%  | 20.0%  | 25.0%  | 11.8%      | 0.0%   | 0.0%   | 0.0%   | 0.0%        | 0.0%   | 0.0% | 0.0%   | 0.0%        | 0.0%   | 0.0%   | 0.0%   | 0.0%    | 22.2%  | 20.0%  | 0.0%   | 33.3%  |
| Stage 3               | 13.6%       | 8.3%   | 20.0%  | 0.0%   | 11.8%      | 33.3%  | 0.0%   | 0.0%   | 25.0%       | 0.0%   | 0.0% | 0.0%   | 28.6%       | 50.0%  | 0.0%   | 0.0%   | 0.0%    | 11.1%  | 20.0%  | 0.0%   | 33.3%  |
| Stage 4               | 36.4%       | 41.7%  | 20.0%  | 25.0%  | 61.8%      | 55.6%  | 100.0% | 100.0% | 75.0%       | 50.0%  | 0.0% | 100.0% | 64.3%       | 0.0%   | 100.0% | 100.0% | 27.8%   | 36.0%  | 25.0%  | 0.0%   |        |
| Not Measured          | 2.3%        | 16.7%  | 0.0%   | 0.0%   | 2.9%       | 5.6%   | 0.0%   | 0.0%   | 0.0%        | 50.0%  | 0.0% | 0.0%   | 0.0%        | 50.0%  | 0.0%   | 0.0%   | 0.0%    | 2.8%   | 0.0%   | 0.0%   | 0.0%   |
| Not Recorded          | 0.0%        | 0.0%   | 0.0%   | 37.5%  | 0.0%       | 0.0%   | 0.0%   | 0.0%   | 0.0%        | 0.0%   | 0.0% | 0.0%   | 0.0%        | 0.0%   | 0.0%   | 0.0%   | 0.0%    | 0.0%   | 0.0%   | 0.0%   | 0.0%   |
| Total                 | 100.0%      | 100.0% | 100.0% | 100.0% | 100.0%     | 100.0% | 100.0% | 100.0% | 100.0%      | 100.0% | 0.0% | 100.0% | 100.0%      | 100.0% | 100.0% | 100.0% | 100.0%  | 100.0% | 100.0% | 100.0% | 100.0% |

**Stage at presentation across SCAN region of the five most frequent Head and Neck cancers**

Table 7

| Stage at presentation | Oral Cavity | Oropharynx | Nasopharynx | Hypopharynx | Larynx |
|-----------------------|-------------|------------|-------------|-------------|--------|
| Stage 0               | 0.0%        | 0.0%       | 0.0%        | 0.0%        | 2.8%   |
| Stage 1               | 20.3%       | 8.9%       | 0.0%        | 5.6%        | 31.0%  |
| Stage 2               | 24.6%       | 7.1%       | 0.0%        | 0.0%        | 21.1%  |
| Stage 3               | 11.6%       | 17.9%      | 12.5%       | 27.8%       | 15.5%  |
| Stage 4               | 34.8%       | 62.5%      | 75.0%       | 61.1%       | 28.2%  |
| Not Measured          | 4.3%        | 3.6%       | 12.5%       | 5.6%        | 1.4%   |
| Not Recorded          | 4.3%        | 0.0%       | 0.0%        | 0.0%        | 0.0%   |
| Total                 | 100.0%      | 100.0%     | 100.0%      | 100.0%      | 100.0% |

**Patients reviewed at MDM**

Table 8

|                          | <b>Lothian</b> | <b>Borders</b> | <b>Fife</b> | <b>D&amp;G</b> | <b>SCAN</b> | <b>% of Total</b> |
|--------------------------|----------------|----------------|-------------|----------------|-------------|-------------------|
| n=                       | 149            | 13             | 62          | 23             | 247         | 100               |
| Patients seen MDT        | 145            | 12             | 62          | 21             | 240         | 97.2              |
| Patients not seen by MDT | 4              | 1              | 0           | 2              | 7           | 2.8               |

**First Treatment**

Table 9

|                               | <b>Lothian</b> |       | <b>Borders</b> |       | <b>Fife</b> |       | <b>D&amp;G</b> |       | <b>SCAN</b> | <b>% of Total</b> |
|-------------------------------|----------------|-------|----------------|-------|-------------|-------|----------------|-------|-------------|-------------------|
| n=                            | <b>149</b>     |       | <b>13</b>      |       | <b>62</b>   |       | <b>23</b>      |       | <b>247</b>  |                   |
| Surgery                       | 77             | 51.7% | 9              | 69.2% | 34          | 54.8% | 9              | 39.1% | <b>129</b>  | <b>52.2</b>       |
| Radiotherapy                  | 26             | 17.4% | 2              | 15.4% | 11          | 17.7% | 5              | 21.7% | <b>44</b>   | <b>17.8</b>       |
| Chemotherapy                  | 14             | 9.4%  | 1              | 7.7%  | 9           | 14.5% | 3              | 13.0% | <b>27</b>   | <b>10.9</b>       |
| Synchronous ChemoRTX          | 16             | 10.7% | 0              | 0.0%  | 2           | 3.2%  | 1              | 4.3%  | <b>19</b>   | <b>7.7</b>        |
| No Active Treatment           | 10             | 6.7%  | 0              | 0.0%  | 4           | 6.5%  | 2              | 8.7%  | <b>16</b>   | <b>6.5</b>        |
| Patient refused all therapies | 2              | 1.3%  | 0              | 0.0%  | 1           | 1.6%  | 1              | 4.3%  | <b>4</b>    | <b>1.6</b>        |
| Other therapy                 | 1              | 0.7%  | 0              | 0.0%  | 1           | 1.6%  | 2              | 8.7%  | <b>4</b>    | <b>1.6</b>        |
| Watchful waiting              | 0              | 0.0%  | 0              | 0.0%  | 0           | 0.0%  | 0              | 0.0%  | <b>0</b>    | <b>0.0</b>        |
| Died before treatment         | 3              | 2.0%  | 1              | 7.7%  | 0           | 0.0%  | 0              | 0.0%  | <b>4</b>    | <b>1.6</b>        |
| Not recorded                  | 0              | 0.0%  | 0              | 0.0%  | 0           | 0.0%  | 0              | 0.0%  | <b>0</b>    | <b>0.0</b>        |

**All patients with head and neck cancer should undergo chest CT**

Table 10

(SIGN guideline 3.2.5)

|                     | Lothian    | % of Total | Borders   | % of Total | Fife      | % of Total | D&G       | % of Total | SCAN       | % of total 2008 | % of Total 2007 | % of Total 2006 |
|---------------------|------------|------------|-----------|------------|-----------|------------|-----------|------------|------------|-----------------|-----------------|-----------------|
| <b>n=</b>           | <b>149</b> | n/a        | <b>13</b> | n/a        | <b>62</b> | n/a        | <b>23</b> | n/a        | <b>247</b> | n/a             | n/a             | n/a             |
| CT Chest/Thorax     | 141        | 94.6       | 12        | 92.3       | 61        | 98.4       | 23        | 100.0      | <b>237</b> | 96.0            | 88.4            | 77.4            |
| No imaging recorded | 8          | 5.4        | 1         | 7.7        | 1         | 1.6        | 0         | 0.0        | 10         | 4.0             | 11.6            | 22.6            |

There is no evidence that CT or MRI improves the accuracy of primary staging of T1 laryngeal tumours which are localised and confined to one vocal cord with no extension into the anterior commissure. The purpose of CT chest is to detect synchronous lung tumours in a population of smokers. CT of the chest in stage T2-T4 tumours is for staging purposes in addition to detection of a second primary tumour.

**All patients with head and neck cancer should undergo CT/MRI of primary tumour site**

Table 11

(SIGN guideline 3.2.3)

|                                       | Lothian    | % of Total | Borders   | % of Total | Fife      | % of Total | D&G       | % of Total   | SCAN       | % of Total 2008 |
|---------------------------------------|------------|------------|-----------|------------|-----------|------------|-----------|--------------|------------|-----------------|
| Total                                 | <b>149</b> | n/a        | <b>13</b> | n/a        | <b>62</b> | n/a        | <b>23</b> | n/a          | <b>247</b> | n/a             |
| Tis or T1 not requiring imaging       | 1          | 0.7        | 1         | 7.7        | 14        | 22.6       | 0         | 0.0          | 16         | 6.5             |
| <b>Eligible for imaging (n=)</b>      | 148        | 99.3       | 12        | 92.3       | <b>48</b> | 77.4       | 23        | 100.0        | 231        | 93.5            |
| CT or MRI Head/Neck                   | 148        | <b>100</b> | 12        | <b>100</b> | 48        | <b>100</b> | 23        | <b>100.0</b> | 231        | <b>100.0</b>    |
| No Imaging recorded in eligible group | 0          | 0          | 0         | 0          | 0         | 0          | 0         | 0.0          | 0          | 0.0             |

**T1 larynx first treatment summary**

Table 12

n= number of patients diagnosed with T1 larynx

|                                  | Lothian | % of n | Borders | % of n | Fife | % of n | D&G | % of n | SCAN | % of n |
|----------------------------------|---------|--------|---------|--------|------|--------|-----|--------|------|--------|
| n=                               | 11      | n/a    | 3       | n/a    | 6    | n/a    | 2   | n/a    | 22   | 100    |
| Surgery                          | 7       | 63.6   | 2       | 66.7   | 3    | 50.0   | 1   | 50.0   | 13   | 59.1   |
| Radiotherapy                     | 4       | 36.4   | 1       | 33.3   | 3    | 50.0   | 1   | 50.0   | 9    | 40.9   |
| Surgery and post op Radiotherapy | 2       | 18.2   | 0       | 0.0    | 0    | 0.0    | 0   | 0.0    | 2    | 9.1    |

Patients with early glottic cancer (T1) may be treated by endoscopic laser excision, partial laryngectomy or radiotherapy (SIGN 11.1). Radiotherapy offers voice preservation with surgery available as salvage.

**Overall treatment time from definitive surgery to completion of XRT should be <11 weeks**

Table 13

(Sign guideline 7.3)

Exclusions= Patients having neck dissection or biopsy

|  | Lothian | %    | Borders | %   | Fife | %    | D&G | %   | SCAN | %    |
|--|---------|------|---------|-----|------|------|-----|-----|------|------|
| Number patients having post op XRT/ chemoRTX | 35      | n/a  | 2       | n/a | 20   | n/a  | 1   | n/a | 58   | 100  |
| Surgery to completion of XRT<11 weeks        | 11      | 31.4 | 0       | 0   | 10   | 50.0 | 0   | 0.0 | 21   | 36.2 |

Note: Although the SIGN guideline implies that 100% of patients should have completed radiotherapy within 11 weeks of surgery, delayed healing post surgery can make it impossible to hit this target.

**Treatment related mortality: death <31 days from definitive surgery**

Table 14

Exclusions= Patients having neck dissection

|  | Lothian | Borders | Fife | D&G | SCAN |
|--|---------|---------|------|-----|------|
| Number of patients with definitive surgery | 67      | 8       | 27   | 6   | 108  |
| Patients dying within 30 days of surgery   | 1       | 0       | 0    | 0   | 1    |

### **Neck dissection showing Extra Capsular Spread who then proceed to chemoradiation**

Table 15

N = Patients having neck dissection

Exclusions= patients who have chemotherapy prior to neck dissection, >70 years, unfit for treatment.

|   | Lothian | % of Total | Borders | % of Total | Fife | % of Total | D&G | % of Total | SCAN | % of Total |
|---|---------|------------|---------|------------|------|------------|-----|------------|------|------------|
| Patients excluded                                   | 5       | 18.5       | 0       | 0          | 0    | 0.0        | 0   | 0.0        | 5    | n/a        |
| Patients with Neck Dissection (after exclusions)    | 27      | n/a        | 2       | n/a        | 13   | 100        | 4   | 100        | 46   | 100        |
| Patients with ECS                                   | 8       | 29.6       | 2       | 100        | 4    | 30.8       | 1   | 25.0       | 15   | 32.6       |
| ECS proceeding to chemorad/cetuximab & radiotherapy | 8       | 100        | 2       | 100        | 4    | 100        | 1   | 100        | 15   | 100        |
| ECS proceeding to XRT only                          | 0       | 0.0        | 0       | 0.0        | 0    | 0.0        | 0   | 0.0        | 0    | 0.0        |

### **Patients < 70years with stage 3 or 4 disease without primary surgery should be treated with chemoradiotherapy**

Table 16

N = Number of patients <70years old with stage 3 or 4 disease who have not had primary surgery

Exclusions = Patients having palliative chemotherapy, unfit patients, patients who died before treatment, patients who refused treatment.

|   | Lothian   | %    | Borders  | %   | Fife     | %    | D&G      | %   | SCAN      | %    |
|---|-----------|------|----------|-----|----------|------|----------|-----|-----------|------|
| Patients <70years with stage3/4 disease | 56        | n/a  | 3        | n/a | 25       | n/a  | 8        | n/a | 92        | n/a  |
| Patients with primary surgery           | 24        | n/a  | 2        | n/a | 13       | n/a  | 4        | n/a | 43        | n/a  |
| Exclusions                              | 6         | n/a  | 0        | n/a | 4        | n/a  | 0        | 0.0 | 10        | 10.9 |
| n=                                      | <b>26</b> | n/a  | <b>1</b> | n/a | <b>8</b> | n/a  | <b>4</b> | n/a | <b>39</b> | n/a  |
| Chemorad/xrt & cetuximab                | 23        | 88.5 | 1        | 100 | 7        | 87.5 | 4        | 100 | 35        | 89.7 |
| No chemoradiotherapy                    | 3         | 11.5 | 0        | 0.0 | 1        | 12.5 | 0        | 0.0 | 4         | 10.3 |

Note: Radiotherapy and cetuximab is considered an alternative treatment to chemoradiotherapy for patients unfit for chemotherapy

**Surgical Margins Achieved**

Table 17

N= all patients having surgery

Exclusions= patients having laser resection, patients having neck dissection, and/or biopsy.

| Margin achieved | Lothian | %    | Borders | %    | Fife | %    | D&G | % | SCAN | % |
|-----------------|---------|------|---------|------|------|------|-----|---|------|---|
| n=              | 59      | n/a  | 6       | n/a  | 26   | n/a  |     |   |      |   |
| >5mm            | 16      | 27.1 | 2       | 33.3 | 3    | 11.5 |     |   |      |   |
| 1-5mm           | 26      | 44.1 | 3       | 50.0 | 13   | 50.0 |     |   |      |   |
| <1mm            | 4       | 6.8  | 0       | 0.0  | 4    | 15.4 |     |   |      |   |
| Involved margin | 6       | 10.2 | 0       | 0.0  | 2    | 7.7  |     |   |      |   |
| uncertain       | 1       | 1.7  | 0       | 0.0  | 0    | 0.0  |     |   |      |   |
| Not recorded    | 6       | 10.2 | 1       | 16.7 | 4    | 15.4 |     |   |      |   |

Note: D&amp;G data not provided and therefore not possible to produce a figure for SCAN.

Ideally surgeons try to have 5mm of tissue around the tumour which is free of disease. This is often technically impossible because of the situation of the tumour. One Lothian patient had extensive residual disease from a previous tumour.