

**SOUTH EAST SCOTLAND CANCER NETWORK
PROSPECTIVE CANCER AUDIT**

Head and Neck Cancer 2012 COMPARATIVE AUDIT REPORT

Mr Guy Vernham, NHS Lothian
SCAN Lead Clinician Head & Neck Cancer
Mr J Morrison, Fife
Mr A Quyyam, NHS Dumfries & Galloway
Mr S Moralee, NHS Borders
Mr M Armstrong, NHS Borders

Jackie Shaw
SCAN Head & Neck Cancer Audit Facilitator

Maggie McHardy
Fife Head & Neck Cancer Audit Facilitator

Laura Fair
Dumfries & Galloway Head & Neck Cancer Audit Facilitator

SA HN03/14

**HEAD AND NECK CANCERS
In South East Scotland Cancer Network**

COMPARATIVE ANNUAL REPORT

PATIENTS DIAGNOSED 1 January – 31 December 2012

CONTENTS

Document History	3
1 Introduction and Methods.....	4
Basis of Analysis	4
Estimate of Case Ascertainment	5
Process for reviewing and reporting the results	5
2 Comment by Chair SCAN Head & Neck Group - Mr Guy Vernham.....	6
3 Action Points 2011	7
4 Percentage Attainment of Clinical Effectiveness Measures	9
5 Patient Numbers, Age and Tumour Types	11
Estimated Case Ascertainment	11
Frequencies of age at date of diagnosis	12
Incidence by Head & Neck cancer site	13
6 Staging	14
SCAN - Stage at Presentation.....	14
SCAN - % Stage at presentation of the five most frequent Head and Neck cancers.....	14
SCAN 2010-2012: % Stage at presentation of the five most frequent Head and Neck Cancers .	15
7 Patients discussed at MDM.....	16
8 Treatment	16
First Treatment.....	16
CT Chest.....	17
CT Head and Neck.....	18
Surgery to start of Radiotherapy (XRT)	19
9 Histological diagnosis recorded.....	19
10 Surgical margins achieved	20
11 Review by Clinical Nurse Specialist (CNS).....	21
12 Treatment related mortality	21
Death <31 days treatment	21
13 Oncology effectiveness measures	22
14 T1a + T1b larynx first treatment	23
Appendix 1: Stage at Presentation.....	23
Appendix 2 : SCAN Health boards- comparison of % stage at presentation.....	26
Glossary of Terms	27

Document History

Version	Circulation to	Date	Comment
1	Chair H&N SCAN group, lead clinicians and CNS.	[24/01/2014]	Audit represented from Lothian and Borders. No action points and comments suggested.
2	SCAN Group	[10/04/2014]	Final draft with amendments, comments, and action points – for any further comment by 24/04/2014
3	Final sign-off date	[24/04/2014]	Comments received and changes made along with addition of graphs:- Frequencies of age Incidence by Head and Neck Cancer site Surgical margins achieved
4	Circulation to Clinical Governance Groups, and Regional Cancer Planning Group	[25/042014]	Sent to Clinical Governance groups. For RCPG
5	Website (Following assessment for any potentially disclosive personally sensitive patient information)	[date]	

**HEAD AND NECK CANCERS
In South East Scotland Cancer Network
COMPARATIVE ANNUAL REPORT**

PATIENTS DIAGNOSED 1 January – 31 December 2012

1 Introduction and Methods

This report presents analysis of data collected on Head & Neck cancer patients diagnosed between 1 January and 31 December 2012 in the four health board regions comprising S E Scotland Cancer Network (SCAN) – Borders, Dumfries & Galloway (D&G), 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 will also review action points raised in the 2011 annual report. From April 2014 data for QPIs will be collected and reported on in 2015. QPIs possible to calculate from this dataset have been included in this report as early indicators.

Patients included in the Report

All patients diagnosed with Head & Neck Cancers 1 January – 31 December 2011.

SCAN Region	Hospital	Lead Clinician	Audit Support
Lothian	St John's Hospital at Howden, Royal Infirmary Edinburgh, Western General Hospital, Edinburgh Dental Hospital	Mr G Vernham (Chair SCAN H&N Group)	Jackie Shaw
Dumfries & Galloway	D&G Royal Infirmary	Mr A Quyyam	Laura Fair
Borders	Borders General Hospital	Mr S Moralee Mr M Armstrong	Jackie Shaw
Fife	Queen Margaret Hospital Victoria Hospital	Mr J Morrison	Maggie McHardy

Data Collection

Patients are almost all identified through registration at the weekly regional multidisciplinary meeting, and through checks made against pathology listings. Data capture is dependent on case note audit or review of various hospitals electronic records systems. Data is recorded on Access databases in Lothian and on eCase in other board areas.

Datasets and definitions

The dataset collected is the Scottish National Core Minimum Dataset as published by ISD on 1 July 2005. This may be viewed on the ISD website (www.isdscotland.org/cancer)

Further information on the dataset and definitions can be obtained from the SCAN Cancer Audit Facilitator, SCAN Audit Office, c/o Dept of Clinical Oncology, Western General Hospital, Edinburgh.

Jacqueline.Shaw@luht.scot.nhs.uk

Data Quality

All hospitals in the region participate in the Quality Assurance (QA) 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 **103%** when compared with a five-year average of Scottish Cancer Registry data from 2007-2011. Case ascertainment levels greater than 100% may be attributable to an increase in incidence. Allowance has to be made in reviewing results where numbers are small and variation may be due to chance.

Process for reviewing and reporting the results

The draft report was reviewed at a meeting on 24/01/2014 by **the SCAN Lead clinicians** and audit staff representing Lothian and Borders. Review of the draft was undertaken by Fife audit and management, comments were forwarded prior to the meeting. Following circulation to the SCAN Group on 10/04/2014. Comments were received and minor text corrections made, the report was forwarded to the Clinical Governance groups within SCAN for consideration.

Actions for Improvement

After final sign off, the process is for the report to be sent to the Clinical Governance groups within the four health boards and to the Regional Cancer Planning Group. Action plans and progress with plans will be highlighted to the groups. The report will be placed on the SCAN website once it has been fully signed-off and checked for any disclosive material.

2 Comment by Chair SCAN Head & Neck Group - Mr Guy Vernham

This 2012 report does not show any significant changes to the types of cases presenting to the head and neck cancer service nor any great changes to the treatments provided or outcomes from these treatments. However the report does provide some additional information introduced mainly in anticipation of new quality performance indicators (QPIs). I would draw attention to the following:

- The total number of referrals to the MDM is unchanged from the peak seen in 2011(321 in 2012 compared to 322 in 2011).
- The rising number of referrals in recent years is largely attributed to the increasing incidence of HPV associated oropharyngeal carcinoma and this too is unchanged when compared to the previous report.
- I noted an increase in the small number of salivary gland malignancies in my comments for the 2011 report. While this was lower (5.3%) in 2012, the figure remains higher than in previous years.
- Although recording of tumour stage is generally good, I have noted in the past lapses for example in recording of this data in salivary tumours. In this report this information was either not recorded or not measured in 4 of 17 cases of salivary neoplasm. I anticipate that the regular presence of Jackie Shaw (SCAN Head & Neck Cancer Audit Facilitator) at the MDM will encourage further improvement.
- Stage at presentation of the different tumour types is broadly comparable to previous reports. Unfortunately carcinomas of the oropharynx and hypopharynx continue to present with relatively advanced disease due to late onset of symptoms. While cases of oral cavity carcinoma in the Borders appear to present later than in the rest of the region, the number of cases in a single 12 month period are too small for any firm conclusions to be drawn.
- The 2012 report does include a breakdown of T1 glottic carcinomas into T1A and T1B disease. As expected, this indicates that T1A cases are more frequently treated by laser resection and, due to better voice outcomes, T1B cases tend to receive a course of radiotherapy.
- Management of the great majority of cases is discussed at the multidisciplinary meeting. While a few early oral tumours were being treated without MDM discussion, this has now been addressed in a reorganisation on the service.
- Treatment related mortality remains low.

During the course of compiling this report, some minor anomalies in data collection / coding between the different regions were recognised. The number of cases is small and relate to collection of data for example on lip cancers which lie on the junction between skin and head / neck. This will be clarified for future reports.

Guy Vernham, April 2014

3 Action Points 2011

Listed below are some possible areas for improvement identified through the report with proposed action outlined against each:

Report Section	Possible area for improvement	Progress on action	Which clinical standard will this meet?
Table 13	Review separately patients with neck dissections only who have post-op XRT and assess the balance between service or clinical issues (e.g. healing time) as components of delay, and compare with time taken by those having other types of surgery.	No further action required At this time. To be taken forward.	BAHNO standard states that XRT is most effective if post op XRT is started within 42 days of surgery.
Table 17-19	An overall picture of treatment-related mortality relating to H&N cancer.	A single table included showing all patients dying within 30 days of any treatment	It is a requirement to review all patients dying within 30 days of treatment.
Table 22	Improve review of practice by separating T1a and T1b larynx and identifying difference in treatment between the two groups.	T1a and T1b Larynx data presented in two tables to reflect the treatment modalities employed for each group.	It is clinically accepted that T1a Larynx would be treated with laser excision and T1b with primary XRT. There is no existing clinical standard.

Action Points 2012

Listed below are some possible areas for improvement identified through the report with proposed action outlined against each:

Report Section	Possible area for improvement	Proposed action	Which clinical standard will this meet?
Table 14	Report on pathological diagnosis of H&N cancer	Include in 2013 report	QPI 1: Pathological Diagnosis of Head and Neck Cancer
Table 10 + 11	Amalgamate tables in order to assess QPI 2 Imaging	Include in 2013 report	QPI 2: Imaging
Table 7	Report on pts discussed prior to definitive treatment	Include in 2013 report	QPI 3: MDT
N/A	Report on pts with oral assessment prior to treatment	Include in 2013 report	QPI 5: Oral Assessment
N/A	Report on pts seen by SLT prior to treatment	Include in 2013 report	QPI 7: Specialist Speech and Language Therapist Access
Table 15	Changes to table. Report on pts undergoing surgical resection with curative intent where R0 is achieved	Include in 2013 report	QPI 8: Surgical Margins
Table 18 + 19	Report on pts with extra capsular spread and/or R1 surgical margins having chemorads Should be R1 +R2 so will highlight error in QPI	Include in 2013 report	QPI 10: Post Operative Chemoradiotherapy
Table 17	Report on 30 day mortality as specified by modality	Include in 2013 report	QPI 11: 30 Day Mortality
Table 13	Reduce times from Surgery to adjuvant treatment	Review pts waiting longer than 42 days	BAHNO standard

4 Percentage Attainment of Clinical Effectiveness Measures

Table	Measure	Target (%)	Lothian	Borders	Fife	D&G	SCAN 2012
1	Number of patients		189	18	87	27	321
4	TNM recorded <i>excludes unknown primaries</i>	100	95.7	88.9	95.4	92.6	95.3
7	Discussed at MDM	100	97.9	100	92.0	100	97.0
10	CT/ Chest	100	94.2	100	95.4	100	95.3
11	CT/MRI Head & Neck	100	95.8	100	95.4	100	96.3
13	Max 42 days from surgery to start of radiotherapy	100	37.5	33.3	63.6	25	42.9
14	Histological Diagnosis	100	99.5	100	100	100	99.7
16	Seen by CNS	100	96.8	94.4	94.6	100	96.3
17	Died ≤ 30 days from treatment	0	1.8	0	2.6	0	1.8
18	stage 3 or 4 (<70 years) no primary surgery: should be treated with ChemoXRT	100	86.5	100	100	100	90.2

Key

95-100% of target	75-94% of target	<75% of target

SCAN % Attainment in Previous Years	2012	2011	2010	2009	2008
Number of patients	321	322	290	307	247
TNM recorded <i>excludes unknown primaries</i>	95.3	95.3	95.5	91.2	95.0
Discussed at MDM	97.0	97.0	95.5	97.1	97.2
CT/ Chest	95.3	92.8	95.6	94.1	96.0
CT/MRI Head & Neck	96.3	94.4	98.1	98.0	100
Max 42 days from surgery to start of radiotherapy	42.9	47.3	60.7	n/a	n/a
Histological Diagnosis	99.7	95.7	99.7	n/a	n/a
Seen by CNS	96.3	92.8	96.9	n/a	n/a
Died ≤ 30 days from treatment	1.8	n/a	n/a	n/a	n/a
stage 3 or 4 (<70 years) no primary surgery: should be treated with ChemoXRT	90.2	92.3	100	96.5	89.7

5 Patient Numbers, Age and Tumour Types

Estimated Case Ascertainment

Note: In 2012 there were 321 patients diagnosed in SCAN, 27 were diagnosed in Dumfries & Galloway (D&G). Of these, 23 were discussed and treated in SCAN and 4 were discussed and treated in Glasgow.

Table 1

Health Board	n	Scottish Cancer Registry (annual average 2007-2011)	Estimate of case ascertainment	Male	Female
Lothian	189	187	101%	129	60
Borders	18	18	100%	12	6
Fife	87	75	116%	62	25
D & G	27	31	87%	21	6
SCAN	321	311	103%	224	97

Source: Scottish Cancer Registration figures 2007-2011

Cancer registration figures have been obtained from ISD. Death certificate only cases have been excluded. Cases that have been diagnosed in private sector but received treatment in NHS hospitals have been included.

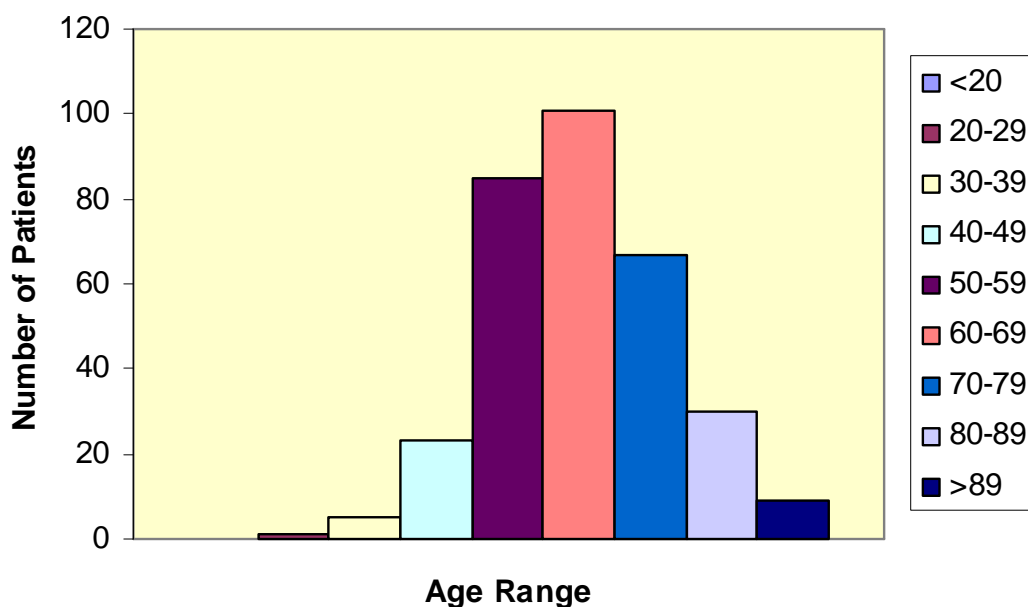
As numbers for Head and Neck cancer patients are relatively small an average of Cancer Registration figures was taken from 2007 - 2011 to provide a more accurate estimate of case ascertainment for 2012. Variations in estimates may be accounted for by the following differences between audited cohorts: cancer registration figures use "Incidence Date" rather than "Date of Diagnosis" and use 'Board of Residence' rather than 'Board of Diagnosis', they also include patients diagnosed at post mortem; Dumfries and Galloway may have patients who although resident in Scotland will be diagnosed in England, Fife residents of North East Fife may be referred to Tayside for diagnosis and treatment and these groups of patients are not included in the audit. Further information on Cancer Registration figures can be found on the ISD website <http://www.isdscotland.org>

Frequencies of age at date of diagnosis

n= all patients diagnosed in SCAN

Table 2

Age	Lothian		Borders		Fife		D&G		SCAN	
	n	%	n	%	n	%	n	%	n	%
<20	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
20-29	0	0.0	0	0.0	1	1.1	0	0.0	1	0.3
30-39	3	1.6	0	0.0	2	2.3	0	0.0	5	1.6
40-49	18	9.5	0	0.0	3	3.4	2	7.2	23	7.2
50-59	52	27.5	5	27.8	22	25.3	6	22.2	85	26.5
60-69	60	31.7	6	33.3	30	34.5	5	18.5	101	31.5
70-79	38	20.1	5	27.8	17	19.5	7	25.9	67	20.9
80-89	14	7.4	1	5.6	9	10.3	6	22.2	30	9.3
>89	4	2.1	1	5.6	3	3.4	1	3.7	9	2.8
Total	189	100.0	18	100.0	87	100.0	27	100.0	321	100.0



Incidence by Head & Neck cancer site

n= all patients diagnosed in SCAN

Table 3

Cancer site	Lothian		Borders		Fife		D&G		SCAN	
	n	%	n	%	n	%	n	%	n	%
Oral Cavity	55	29.1	8	44.4	26	29.9	8	29.6	97	30.2
Oropharynx	42	22.2	4	22.2	20	23.0	3	11.1	69	21.5
Nasopharynx	3	1.6	0	0.0	1	1.1	1	3.7	5	1.6
Hypopharynx	19	10.1	2	11.1	4	4.6	0	0.0	25	7.8
Larynx	48	25.4	1	5.6	20	23.0	11	40.7	80	24.9
Nose and ear	3	1.6	1	5.6	1	1.1	0	0.0	5	1.6
Paranasal sinuses	0	0.0	0	0.0	1	1.1	0	0.0	1	0.3
Major salivary glands	12	6.3	1	5.6	3	3.5	1	3.7	17	5.3
Lip	2	1.1	1	5.6	9	10.4	3	11.1	15	4.7
Unknown Primary/ Ill Defined	5	2.6	0	0.0	2	2.3	0	0.0	7	1.9
Total	189	100.0	18	100.0	87	100.0	27	100.0	321	100.0

Note: Some patients with squamous cell carcinoma (SCC) of the lip are managed and audited by either the Skin cancer team or the Head & Neck oncology team.

6 Staging

SCAN - Stage at Presentation

n=all patients discussed in SCAN

Table 4

	Oral cavity	Oro pharynx	Naso pharynx	Hypo pharynx	Larynx (total)	Para nasal Sinus	Major Salivary Glands	Lip	Nose and Ear	Unknown Primary / Ill Defined	Total	% of Total
Stage 0	6	0	0	0	4	0	1	0	0	0	11	3.4
Stage 1	34	2	0	1	33	0	5	15	3	0	93	29.0
Stage 2	19	5	0	4	17	0	5	0	0	1	51	15.6
Stage 3	7	6	1	2	10	0	0	0	1	0	27	8.4
Stage 4	28	55	3	18	15	1	2	0	1	0	123	38.3
Not Measured	3	1	0	0	1	0	3	0	0	6	15	4.7
Not Recorded	0	0	1	0	0	0	1	0	0	0	2	0.6
Total	97	69	5	25	80	1	17	15	5	7	321	100

2 D&G patients were not recorded

1 Fife patient was recorded as an ill defined site

SCAN - % Stage at presentation of the five most frequent Head and Neck cancers

Table 5

Stage at presentation	Oral Cavity % n=97	Oropharynx % n=69	Nasopharynx % n=5	Hypopharynx % n=25	Larynx % n=80
Stage 0	6	0	0	0	5
Stage 1	35	3	0	4	41
Stage 2	20	7	0	16	21
Stage 3	7	9	20	8	13
Stage 4	29	80	60	72	19
Not Measured	3	1	0	0	1
Not Recorded	0	0	20	0	0
Total	100	100	100	100	100

SCAN 2010-2012: % Stage at presentation of the five most frequent Head and Neck Cancers

Table 6

Stage at presentation	Oral Cavity %			Oropharynx %			Nasopharynx %			Hypopharynx %			Larynx %		
	2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012
Stage 0	9.6	8.6	6.2	1.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	8.8	5.0
Stage 1	35.1	43.2	35.1	3.4	5.7	2.9	0.0	0.0	0.0	0.0	0.0	4.0	35.4	33.8	41.3
Stage 2	10.6	16.0	19.6	6.9	11.4	7.3	33.3	20.0	0.0	5.6	12.5	16.0	21.5	23.8	21.3
Stage 3	10.6	6.2	7.2	13.8	10.0	8.7	33.3	40.0	20.0	5.6	12.5	8.0	13.9	10.0	12.5
Stage 4	29.8	22.2	28.9	74.1	68.6	79.7	33.3	20.0	60.0	88.9	70.8	72.0	19.0	23.8	18.8
Not Measured	4.3	3.7	3.1	0.0	2.9	1.4	0.0	20.0	20.0	0.0	0.0	0.0	3.8	0.0	1.3
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

7 Patients discussed at MDM

n=all patients discussed in SCAN.

Table 7

	Lothian	Borders	Fife	D&G	SCAN	% of Total
n=	189	18	87	27	321	
Discussed at MDM	185	18	80	27	310	97%
Not discussed at MDM	4	0	7	0	11	3%

Lothian – all were EDI referrals

Fife - 3 with SCC lip tumours completely excised and with clear margins, 2 with in-situ disease only which was fully excised at biopsy, 1 requiring only supportive care and 1 who had laser resection of vocal cord when a few foci of invasion was reported but margins were clear.

8 Treatment

First Treatment

Table 8

	Lothian		Borders		Fife		D&G		SCAN	
n=	189		18		87		27		321	
	n	%	n	%	n	%	n	%	n	%
Surgery	83	43.9	11	61.1	43	49.4	15	55.6	152	47.4
Radiotherapy	36	19.2	3	16.7	12	13.8	4	14.8	55	17.1
Neoadjuvant Chemotherapy	11	5.8	1	5.6	4	4.6	1	3.7	17	5.3
Palliative Chemotherapy	2	1.1	0	0	1	1.2	0	0	3	0.9
Synchronous Chemoradiotherapy	30	15.9	3	16.7	14	16.1	3	11.1	50	15.6
No Active Treatment	20	10.6	0	0	11	12.6	3	11.1	34	10.6
Patient refused all therapies	3	1.6	0	0	0	0	0	0	3	0.9
Other Therapy (includes Cetuximab)	4	2.1	0	0	2	2.3	0	0	6	1.9
Died before treatment	0	0	0	0	0	0	1	3.7	1	0.0
Not recorded	0	0	0	0	0	0	0	0	0	0

Summary of Treatment – SCAN

n= All patients diagnosed with a new primary H&N cancer and treated with anti cancer modalities.

Exclusions = no active treatment (34) refused all therapies (3), died before treatment (1), not recorded (0)

Table 9

First Treatment Mode	1st Treatment	Additional Treatment Modalities				
		Chemo/radiation	Chemotherapy	Post Op XRT	XRT only	No Further Treatment
Surgery	152	22	1	25	0	104
XRT	55	0	0	0	0	55
Neoadjuvant Chemotherapy	17	14	0	0	0	3
Chemoradiation	50	0	0	0	0	50
Palliative Chemotherapy	3	0	0	0	0	3
Other therapy (includes Cetuximab)	6	0	0	0	0	6

CT Chest

n= All patients discussed in SCAN

All patients with head and neck cancer should undergo chest CT (SIGN Guideline 3.2.5)

Table 10

	Lothian		Borders		Fife		D&G		SCAN	
n=	189		18		87		27		321	
	n	%	n	%	n	%	n	%	n	%
CT Chest/Thorax	178	94.2	18	100	83	95.4	27	100	306	95.3
No imaging recorded	11	5.8	0	0	4	4.6	0	0	15	4.7

The purpose of CT chest is to detect synchronous lung tumours. CT of the chest in stage T2-T4 tumours is for staging purposes in addition to detection of any second primary tumours.

Note: The records of patients not receiving CT scan have been reviewed by the Head & Neck SCAN Clinical Lead.

CT Head and Neck

All patients with head and neck cancer should undergo CT/MRI of primary tumour site (SIGN guideline 3.2.3)

Table 11

	Lothian		Borders		Fife		D&G		SCAN	
n	189		18		87		27		321	
	n	%	n	%	n	%	n	%	n	%
CT or MRI Head/Neck	181	95.8	18	100	83	95.4	27	100	309	96.3
No imaging recorded	8	1.0	0	0	4	0	0	0	2	0.6

Note: The records of patients not receiving CT have been reviewed by the Head & Neck SCAN Clinical Lead. 6 pts in Lothian and 4 pts in Fife were Tis/T1 and did not require CT.

Comparison of the percentage of CT/MRI of primary tumour and CT chest in SCAN 2008-2012

Table 12

	CT/MRI primary tumour %	CT chest %
2008	100	96.0
2009	98.0	94.1
2010	98.1	95.6
2011	94.4	92.8
2012	96.3	95.3

Surgery to start of Radiotherapy (XRT)

n=all patients having surgery followed by post-op XRT or chemoradiation.

Exclusions = Patients having neck dissection or biopsy

Overall treatment time from definitive surgery to start of Radiotherapy (XRT) within 42 days (BAHNO standard).

Table 13

	Lothian		Borders		Fife		D&G		SCAN	
Post-op XRT or chemoXRT= n	24		3		11		4		42	
	n	%	n	%	n	%	n	%	n	%
Surgery to start of XRT within 42 days	9	37.5	1	33.3	7	63.6	1	25.0	18	42.9

Lothian: The median time from surgery to XRT was 48 days, range 32-68 days.

Fife: The median time from surgery to XRT was 46 days, range 33-83 days

It is well established that radiotherapy is more effective post-operatively if started within 42 days of surgery. However, H&N patients often undergo extensive surgery requiring an extended healing period in some cases. It may be unreasonable to have a target of 100% for this population of patients. This measurement is not to be taken forward as a QPI.

9 Histological diagnosis recorded

n= all patients diagnosed in SCAN

Table 14

	Lothian		Borders		Fife		D&G		SCAN	
n=	189		18		87		27		321	
	n	%	n	%	n	%	n	%	n	%
Histological diagnosis	188	99.5	18	100	87	100	27	100	320	99.7

Lothian: the 1 patient not to have a histological diagnosis had CT scans only before proceeding to palliative care. The patient notes have been reviewed by the Head & Neck SCAN Clinical Lead. The target for this QPI is 95%.

10 Surgical margins achieved

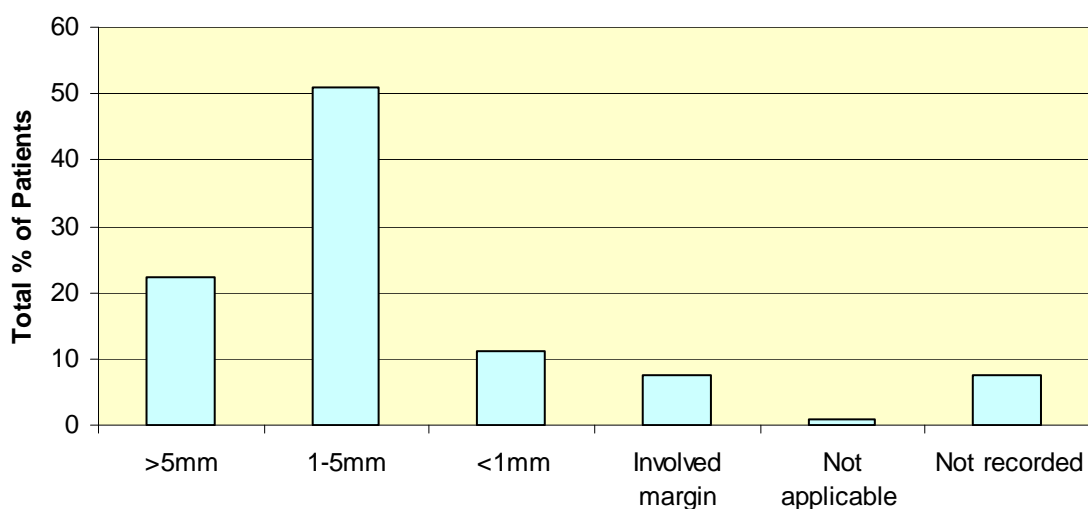
n = all patients having surgery

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

Table 15

Margin achieved	Lothian		Borders		Fife		D&G		SCAN	
	n	%	n	%	n	%	n	%	n	%
n=	70		10		18		10		108	
>5mm	17	24.3	3	30.0	1	5.6	3	30.0	24	22.2
1-5mm	30	42.9	2	20.0	17	94.4	6	60.0	55	50.9
<1mm	10	14.3	2	20.0	0	0.0	0	0.0	12	11.1
Involved margin	7	10.0	1	10.0	0	0.0	0	0.0	8	7.4
Not applicable	0	0.0	0	0.0	0	0.0	1	10.0	1	0.9
Not recorded	6	8.6	2	20.0	0	0.0	0	0.0	8	7.4

Comment: 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. Where the margin is "not recorded" it may be that the margin is clear but is not given a measurement in the pathology report.



11 Review by Clinical Nurse Specialist (CNS)

n= all patients diagnosed in SCAN

Table 16

	Lothian		Borders		Fife		D&G		SCAN	
n=	189		18		87		27		321	
	n	%	n	%	n	%	n	%	n	%
Seen by CNS	183	96.8	17	94.4	82	94.3	27	100	309	96.3

Note: Fife Patients not seen by CNS: 2 not referred, 2 in situ disease and 1 died
All patients not seen have been reviewed by the Head & Neck SCAN Clinical Lead.

12 Treatment related mortality

Death ≤30 days from treatment

Table 17

	Lothian		Borders		Fife		D&G		SCAN	
Number of patients having treatment	166		18		76		23		283	
	n	%	n	%	n	%	n	%	n	%
Patients dying ≤ 30 days of treatment	3	1.8	0	0	2	2.6	0	0	5	1.8

Note: The records of patients dying within 30 days of treatment have been reviewed by the Head & Neck SCAN Clinical Lead.

13 Oncology effectiveness measures

Neck dissection showing Extra Capsular Spread (ECS) who then proceed to chemoradiation

n1 = Patients having neck dissection

Exclusions = patients who have chemotherapy prior to neck dissection, >70 years, unfit, refused treatment, died before treatment

n2 = Patients having neck dissection with ECS

Table 18

	Lothian		Borders		Fife		D&G		SCAN	
n1 = Patients with Neck Dissection	26		3		18		4		51	
n2 = Patients with ECS	9		3		3		1		16	
	n	%	n	%	n	%	n	%	n	%
ECS proceeding to chemorad or XRT & cetuximab	2	22.2	1	33.3	1	33.3	1	100	5	31.3
ECS proceeding to XRT only	7	77.8	2	66.7	2	66.7	0	0	11	68.7

Patients <70 years with stage 3 or 4 disease without primary surgery treated with chemoradiotherapy

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

Exclusions = patients having palliative chemotherapy, unfit, refused or died before treatment

Table 19

	Lothian		Borders		Fife		D&G		SCAN	
n=	37		2		8		4		51	
	n	%	n	%	n	%	n	%	n	%
Chemorad or XRT & cetuximab	32	86.5	2	100	8	100	4	100	46	90.2
No chemorad	5	13.5	0	0.0	0	0.0	0	0.0	5	9.8

Note: Radiotherapy and cetuximab is considered an alternative treatment to chemoradiotherapy for patients unfit for chemotherapy. There were 6 patients in SCAN treated with XRT and cetuximab.

14 T1a and T1b larynx first treatment

n= number of patients diagnosed with T1a N0 laryngeal cancer

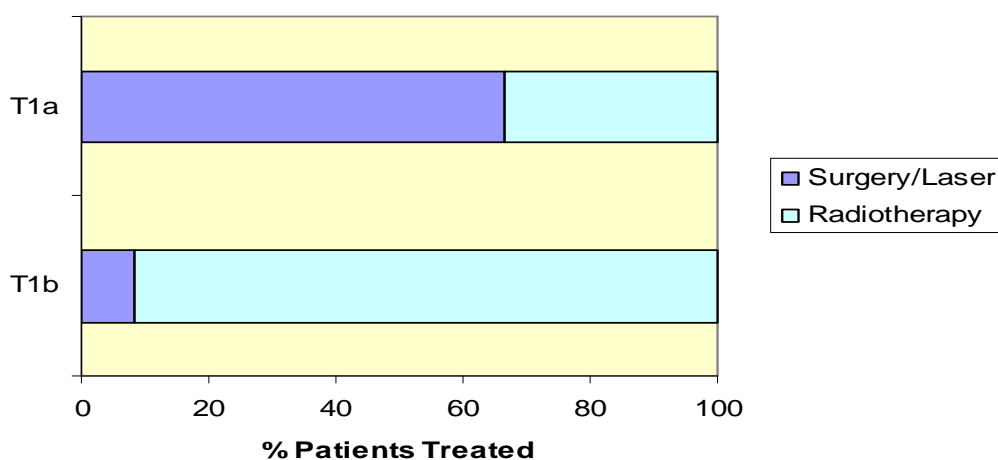
Table 20

	Lothian		Borders		Fife		D&G		SCAN	
n=	8		0		7		0		15	
	n	%	n	%	n	%	n	%	n	%
Surgery/laser	6	75.0	0	0.0	4	57.1	0	0.0	10	66.7
Radiotherapy	2	25.0	0	0.0	3	42.9	0	0.0	5	33.3
Surgery and Post- op Radiotherapy	0	0.0	0	0.0	0	0	0	0.0	0	0.0
No Active treatment	0	0.0	0	0.0	0	0	0	0.0	0	0.0

n= number of patients diagnosed with T1b N0 laryngeal cancer

Table 21

	Lothian		Borders		Fife		D&G		SCAN	
n=	9		0		3		0		12	
	n	%	n	%	n	%	n	%	n	%
Surgery/laser	1	11.1	0	0.0	0	0.0	0	0.0	1	8.3
Radiotherapy	8	88.9	0	0.0	3	100	0	0.0	11	91.7
Surgery and Post- op Radiotherapy	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
No Active treatment	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0



Appendix 1: Stage at Presentation

Table a **Lothian** n=189

	Oral cavity	Oro pharynx	Naso pharynx	Hypo pharynx	Larynx (total)	Para nasal Sinus	Major Salivary Glands	Lip	Nose And Ear	Unknown primary	Total	% of Total
Stage 0	4	0	0	0	1	0	1	0	0	0	6	3.2
Stage 1	21	2	0	1	19	0	5	2	1	0	51	27
Stage 2	11	3	0	2	12	0	4	0	0	0	32	16.9
Stage 3	4	5	1	2	8	0	0	0	1	0	21	11.1
Stage 4	14	31	2	14	7	0	2	0	1	0	71	37.6
Not measured	1	1	0	0	1	0	0	0	0	5	8	4.2
Total	55	42	3	19	48	0	12	2	3	5	189	100

Table b **Fife** n=87

	Oral cavity	Oro pharynx	Naso pharynx	Hypo pharynx	Larynx (total)	Para nasal Sinus	Major Salivary Glands	Lip	Nose and Ear	Unknown Primary / Ill Defined	Total	% of Total
Stage 0	2	0	0	0	3	0	0	0	0	0	5	5.8
Stage 1	9	0	0	0	10	0	0	9	1	0	29	33.3
Stage 2	5	2	0	1	3	0	1	0	0	1	13	14.9
Stage 3	2	0	0	0	1	0	0	0	0	0	3	3.5
Stage 4	7	18	1	3	3	1	0	0	0	0	33	37.5
Not measured	1	0	0	0	0	0	2	0	0	1	4	4.6
Total	26	20	1	4	20	1	3	9	1	2	87	100

Table c **Borders** n=18

	Oral cavity	Oro pharynx	Naso pharynx	Hypo pharynx	Larynx (total)	Para nasal Sinus	Major Salivary Glands	Lip	Nose and Ear	Unknown Primary	Total	% of Total
Stage 0	0	0	0	0	0	0	0	0	0	0	0	0.0
Stage 1	1	0	0	0	0	0	0	1	1	0	3	16.6
Stage 2	1	0	0	1	0	0	0	0	0	0	2	11.1
Stage 3	0	0	0	0	1	0	0	0	0	0	1	5.6
Stage 4	5	4	0	1	0	0	0	0	0	0	10	55.6
Not measured	1	0	0	0	0	0	1	0	0	0	2	11.1
Total	8	4	0	2	1	0	1	1	1	0	18	100

Table d **Dumfries and Galloway** n=27 (patients treated in SCAN)

	Oral cavity	Oro pharynx	Naso pharynx	Hypo pharynx	Larynx (total)	Para nasal Sinus	Major Salivary Glands	Lip	Nose and Ear	Unknown Primary	Total	% of Total
Stage 0	0	0	0	0	0	0	0	0	0	0	0	0.0
Stage 1	3	0	0	0	4	0	0	3	0	0	10	37.0
Stage 2	2	0	0	0	2	0	0	0	0	0	4	14.8
Stage 3	1	1	0	0	0	0	0	0	0	0	2	7.4
Stage 4	2	2	0	0	5	0	0	0	0	0	9	33.3
Not measured	0	0	1	0	0	0	1	0	0	0	2	7.4
Total	8	3	1	0	11	0	1	3	0	0	27	100

Appendix 2 : SCAN Health boards- comparison of % stage at presentation of the five most frequent Head and Neck cancers

Table a

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	7.3	7.7	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	2.1	15.0	0.0	0.0
Stage 1	38.2	34.6	12.5	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0	0.0	5.3	0.0	0.0	0	39.6	50.0	0.0	36.4
Stage 2	20.0	19.2	12.5	0.0	7.1	10.0	0.0	0.0	0.0	0.0	0	0.0	10.5	25.0	50.0	0	25.0	15.0	0.0	18.2
Stage 3	7.3	7.7	0.0	33.3	11.9	0.0	0.0	33.3	33.3	0.0	0	0.0	10.5	0.0	0.0	0	16.7	5.0	100.0	0.0
Stage 4	25.5	26.9	62.5	66.7	73.8	90.0	100	66.7	66.7	100	0	0.0	73.7	75.0	50.0	0	14.6	15.0	0.0	45.5
Not Recorded	1.8	3.8	12.5	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0	100	0.0	0.0	0.0	0	2.1	0.0	0.0	0.0
Total	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100	0	100	100	100	100

Glossary of Terms

Anterior commissure – point at which the vocal cords meet in front of the larynx.

BAHNO – British Association of Head and Neck Oncologists.

CT Scan - Computerised Tomography. This scan uses X-rays and a computer to create detailed images of the inside of the body.

Chemotherapy- The treatment of cancer with cell killing (cytotoxic drugs). Different types of drugs, dosage and delivery systems are used depending on the size and type of cancer.

Chemoradiotherapy – The treatment of cancer with a combination of chemotherapy and radiotherapy.

Diagnosis – When the doctor identifies the nature of the cancer.

ECC – Edinburgh Cancer Centre, Western General Hospital, EH4 2XU

ECS – Extra capsular spread. When cancer has spread beyond the lymph node capsule.

EDI – Edinburgh Dental Institute, Lauriston Place, EH3 9HA

Endoscope - The endoscope is a thin, flexible tube with a bright light at the end. Looking through it the Doctor gets a clear view of the different areas of the nose and throat and can check whether or not any disease or abnormality is present.

Laryngectomy- removal of the voice box

MDM- Multidisciplinary meeting. This is made up of professionals who are expert in diagnosing, treating and caring for people with cancer.

MRI- Magnetic Resonance Imaging. This scan uses a powerful magnetic field to see detailed internal structures.

Neck Dissection – A surgical procedure to remove lymph nodes from the neck which may contain cancer cells. A neck dissection helps to control the spread of Head and Neck cancer to the rest of the body.

Postoperative – After an operation e.g. postoperative radiotherapy is radiotherapy after surgery has been performed.

Radiotherapy (XRT) - Uses high energy xrays to destroy cancer cells. Radiotherapy is usually given in a series of short treatment sessions over days or weeks.

Staging - A series of tests to establish the size and spread of the cancer.

Surgical Margins – Free edge of normal tissue seen by the pathologist. A “narrow margin” implies the tumour exists very close to the surgical margin.