SCAN
South East Scotland Cancer Network

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SOUTH EAST SCOTLAND CANCER NETWORK
PROSPECTIVE CANCER AUDIT

Head and Neck Cancer 2011

COMPARATIVE AUDIT REPORT

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HEAD AND NECK CANCERS
In South East Scotland Cancer Network

COMPARATIVE ANNUAL REPORT

PATIENTS DIAGNOSED 1 January – 31 December 2011

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Document History

Version	Circulation to	Date	Comment
1	Chair H&N SCAN group, lead clinicians and CNS.	23/11/2012	Audit represented from, Fife, Lothian, Borders, D&G. Suggested action points and comments to be added.
2	SCAN Group	23/01/2013	Final draft with amendments, comments, and action points – for any further comment by 04/02/2013
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5	Website	June 2013	Following assessment for any potentially disclosive personally sensitive patient information

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1 Introduction and Methods

This report presents analysis of data collected on Head & Neck cancer patients diagnosed between 1 January and 31 December 2011 in the four health board regions comprising S E Scotland Cancer Network (SCAN) – Borders, Dumfries & Galloway (D&G), Fife, and Lothian. Of the 322 patients diagnosed in SCAN in 2011 32 were diagnosed in D&G. Of these, 14 were discussed and treated in SCAN and 18 were discussed and treated in Glasgow.

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 2010 annual report.

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)	Valerie Findlay (SCAN Audit Facilitator)
Dumfries & Galloway	D&G Royal Infirmary	Mr B Joshi	Valerie Findlay
Borders	Borders General Hospital	Mr S Moralee Mr M Armstrong	Valerie Findlay
Fife	Queen Margaret Hospital Victoria Hospital	Mr J Morrison	Maggie McHardy

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.

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 108% when compared with a five-year average of Scottish Cancer Registry data from 2006-2010. 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 23/11/2012 by Dr Janet Ironside, Mr G. Vernham, Linda Kempton (CNS) and audit staff representing Lothian, Borders Fife and D&G. Following a second circulation to the SCAN Group on 23/01/2013 no further comments were received and the report was forwarded board Clinical Governance groups 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

The 2011 report, as is to be expected, in most respects illustrates similar patterns and trends to those seen in the reports of recent years. I feel that the following features deserve mention:

- Following a small reduction in the total number of patients referred to the MDM between 2009 and 2010, the 2011 report confirms the longer term steady increase in cases. The total number of new patients seen in 2011 was 322 compared to 290 in 2010 (an increase of 11%). The number of new patients seen has increased by 30.4% since 2008. This in conjunction with increasingly complex treatment regimens constitutes a highly significant increase in the work load.
- The stabilisation in the incidence of oropharyngeal carcinoma between 2009 and 2010, noted in last year's report, has not been maintained and Human Papilloma Virus related disease has again shown an upward trend with an additional 22 cases in 2011 compared to 2010 (an increase of 23%).
- This year's report does record some reduction in the incidence of oral cavity carcinoma from 94 cases in 2010 (32.4%) to 81 cases in 2011 (26.6%). This does not reflect wider national trends and may not be maintained.
- An increased incidence of major salivary tumours was noted in 2009 (4.9%) and 2010 (4.5%). While numbers of cases are small, the 2011 report records a further increase in the number of major salivary tumours seen (6.3%).
- The incidence of stage 4 carcinoma of hypopharynx was 88.9% in 2010. While it is pleasing to note a reduction to 70.8% in 2011, this remains high. However, the nature of the condition dictates that a high incidence of late presentation is inevitable.
- In 2010 the majority of cases of T1 carcinoma of the larynx were treated by radiotherapy rather than surgery (primarily laser resection). This was again the case, although a larger proportion of cases were treated by laser resection. In general T1A glottic carcinomas are likely to be offered laser resection, but T1B cases are most likely to be offered radiotherapy: a further breakdown analysis is likely to clarify.
- The 2011 report indicates an increase in the number of patients treated by synchronous chemoradiotherapy. This is probably a reflection of the rising incidence of oropharyngeal carcinoma which is usually treated by this modality. Likewise, the reduction in primary surgical treatment (from 54.8% in 2010 to 47% in 2011) is likely to be a reflection of the lower incidence of carcinoma of the oral cavity which is usually treated by primary surgery.
- Recording of staging in major salivary gland malignancies has been sub-standard in the past as noted in the action points from the 2010 report. This was recorded in all but 2 cases in 2011.

Action points from last year's report also included the addition of a "MDM discussion only" section on the MDM datasheet. This has been implemented together with other improvements to the datasheet.

The need for CT chest in cases of T1 carcinoma of larynx and lip remains controversial and is one of subjects under discussion at national Quality Performance Indicator (QPI) meetings, the first of which was held in September 2012. The SCAN Head & Neck Group is well represented on the core group, sub-groups, and the wider consultation group.

Following review by the consultant staff, changes have been made to the patient review policy and it is hoped that this will reduce the pressure of reviews cases in the multi-disciplinary clinic.

The clinic facilities at the Western General Hospital have long been recognised by the multi-disciplinary team as inadequate for the provision of the service. Most importantly the current facility has an insufficient number of rooms. The problem is compounded by the noted increase in workload. The team has begun work to establish essential and desirable requirements for the clinic facility with a view to identifying where such a facility might be established.

A case has been made for a MDM Coordinator post to improve the efficiency of the Head & Neck Multi-disciplinary Service. Funding has now been identified for this post which will be advertised early in 2013.

Guy Vernham
December 2012

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	Proposed 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.	Try to identify where the problem lies by reviewing patients failing the target. Identify if predominantly Max fax or ENT patients.	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.	Include a single table showing all patients dying within 30 days of surgery/XRT/chemotherapy	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.	Present data to show two groups of T1 Larynx patients, T1a and T1b and 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.

4 Percentage Attainment of Clinical Effectiveness Measures

Table	Measure (%)	Target (%)	Lothian	Borders	Fife	D&G	SCAN 2011	SCAN 2010	SCAN 2009	SCAN 2008	SCAN 2007
1	Number of patients		200	16	74	32[1]	322	290	307	247	267
4	TNM recorded *excludes unknown primaries*	100	97.0	100	92.0	86.0	95.3	95.5	91.2	95.0	97.1
7	Discussed at MDM	100	97.0	100	96.0	100	97.0	95.5	97.1	97.2	99.2
10	CT/ Chest	100	93.0	100	90.5	92.9	92.8	95.6	94.1	96.0	88.4
11	CT/MRI Head & Neck	100	95.5	100	89.2	100	94.4	98.1	98.0	100	96.5
13	Max 42 days from surgery to start of radiotherapy	100	50.0	50.0	46.7	33.3	47.3	60.7	34.0[2]	37.3[2]	29.6[2]
14	Histological Diagnosis	100	97.5	93.8	90.5	100	95.7	99.7			
16	Seen by CNS	100	90.0	93.8	98.6	100	92.8	96.9			
17	Died < 31 days from definitive surgery	0	2.3	0	5.0	0	2.9	0	0	0.9	0
18	Died < 31 days from end radiotherapy	0	2.6	10.0	3.6	0.0	3.1	1.9			
19	Died < 31days end of chemotherapy	0	1.8	0	0	0	0.9	1.5			
21	stage 3 or 4 (<70 years) no primary surgery: should be treated with ChemoXRT	100	93.3	100	88.9	0.0	92.3	100	96.5	89.7	97.8

Note [1]: Dumfries & Galloway: 32 patients were diagnosed in SCAN. 14 were treated in SCAN and 18 were treated in Glasgow. Only those treated in SCAN are included in the analysis.

Note [2:] Change of measure in Table 13 from 2010 – previous years' results not directly comparable.

Key

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

n/a = not measured in previous years

5 Patient Numbers, Age and Tumour Types

Estimated Case Ascertainment

Note: Of 322 patients diagnosed in SCAN in 2011 32 were diagnosed in Dumfries & Galloway (D&G). Of these, 14 were discussed and treated in SCAN and 18 were discussed and treated in Glasgow. Denominators throughout the remainder of this report are based on 304 treated in SCAN.

Table 1

Health Board	n	Scottish Cancer Registry (annual average 2006-2010)	Estimate of case ascertainment	Male	Female
Lothian	200	183	109%	138	62
Borders	16	15	107%	14	2
Fife	74	68	109%	54	20
Dumfries & Galloway	32	33	97%	23	9
SCAN	**322**	299	**108%**	**229 (71.1%)**	**93 (28.9%)**

Source: Scottish Cancer Registration figures 2006-2010
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 2006 - 2010 to provide a more accurate estimate of case ascertainment for 2011.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

Frequencies of age at date of diagnosis

n= all patients diagnosed and treated in SCAN
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	0	0.0%	0	0.0%	1	1.4%	0	0.0%	1	0.3%
30-39	4	2.0%	0	0.0%	1	1.4%	0	0.0%	5	1.6%
40-49	9	4.5%	1	6.3%	7	9.5%	0	0.0%	17	5.6%
50-59	50	25.0%	2	12.5%	23	31.1%	4	28.6%	79	26.0%
60-69	67	33.5%	4	25.0%	21	28.4%	2	14.3%	94	30.9%
70-79	51	25.5%	4	25.0%	12	16.2%	6	42.9%	73	24.0%
80-89	18	9.0%	4	25.0%	8	10.8%	2	14.3%	32	10.5%
>89	1	0.5%	1	6.3%	1	1.4%	0	0.0%	3	1.0%
Total	200	100%	16	100%	74	100%	14	100%	304	100%

Note: 35.5% of patients are over 70 and 11.5% of H&N patients are over 80

Incidence by Head & Neck cancer site

n= all patients diagnosed and treated in SCAN

Table 3

Cancer site	Lothian		Borders		Fife		D&G		SCAN	
Oral Cavity	53	26.5%	5	31.3%	23	31.1%	0	0.0%	81	26.6%
Oropharynx	43	21.5%	5	31.3%	19	25.7%	3	21.4%	70	23.0%
Nasopharynx	1	0.5%	1	6.3%	3	4.1%	0	0.0%	5	1.6%
Hypopharynx	17	8.5%	0	0.0%	5	6.8%	2	14.3%	24	7.9%
Larynx	55	27.5%	2	12.5%	16	21.6%	7	50.0%	80	26.3%
Nose and ear	4	2.0%	1	6.2%	0	0.0%	2	14.3%	7	2.3%
Paranasal sinuses	4	2.0%	0	0.0%	0	0.0%	0	0.0%	4	1.3%
Major salivary glands	13	6.5%	0	0.0%	6	8.1%	0	0.0%	19	6.3%
Lip	4	2.0%	0	0.0%	2	2.7%	0	0.0%	6	2.0%
Unknown Primary	6	3.0%	2	12.5%	0	0.0%	0	0.0%	8	2.6%
Total	200	100%	16	100%	74	100%	14	100%	304	100%

Note: Depending on the location of the lesion 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 and treated 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	Total	% of Total
Stage 0	7	1	0	0	7	0	1	3	0	0	19	6.3
Stage 1	35	4	0	0	27	0	2	3	2	0	73	24.0
Stage 2	13	8	1	3	19	0	5	0	0	0	49	16.1
Stage 3	5	7	2	3	8	1	2	0	0	0	28	9.2
Stage 4	18	48	1	17	19	3	5	0	2	0	113	37.2
Not Measured	3	2	1	1	0	0	4	0	3	8	22	7.2
Total	81	70	5	24	80	4	19	6	7	8	304	100

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

Table 5

	Oral Cavity %	Oropharynx %	Nasopharynx %	Hypopharynx %	Larynx %
Stage at presentation	n=81	n=70	n=5	n=24	n=80
Stage 0	8.6	1.4	0.0	0	8.8
Stage 1	43.2	5.7	0.0	0	33.8
Stage 2	16.0	11.4	20.0	12.5	23.8
Stage 3	6.2	10.0	40.0	12.5	10.0
Stage 4	22.2	68.6	20.0	70.8	23.8
Not Measured	3.7	2.9	20.0	4.2	0
Total	100	100	100	100	100

SCAN 2009-2011: % Stage at presentation of the five most frequent Head and Neck Cancers

Table 6

	Oral Cavity %			Oropharynx %			Nasopharynx %			Hypopharynx %			Larynx %		
Stage at presentation	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
Stage 0	2.3	9.6	8.6	1.3	1.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0	5.7	6.3	8.8
Stage 1	27.9	35.1	43.2	5.3	3.4	5.7	0.0	0.0	0.0	4.2	0.0	0.0	31.8	35.4	33.8
Stage 2	16.3	10.6	16.0	5.3	6.9	11.4	0.0	33.3	20.0	8.3	5.6	12.5	17.0	21.5	23.8
Stage 3	12.8	10.6	6.2	12.0	13.8	10.0	16.7	33.3	40.0	20.8	5.6	12.5	15.9	13.9	10.0
Stage 4	34.8	29.8	22.2	68.0	74.1	68.6	33.3	33.3	20.0	58.3	88.9	70.8	27.3	19.0	23.8
Not Measured	8.6	4.3	3.7	8.0	0.0	2.9	50.0	0	20.0	8.3	0	0.0	2.3	3.8	0.0
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source data: Appendix 1 and Appendix 2

7 Patients discussed at MDM

n=all patients discussed and treated in SCAN.

Table 7

	Lothian	Borders	Fife	D&G	SCAN	% of Total
n=	200	16	74	14	304	100
Discussed at MDM	194	16	71	14	295	97
Not discussed at MDM	6	0	3	0	9	3

Lothian – of 6 patients not discussed at MDM: 2 died before treatment, 1 refused all treatment, 2 were lip cancers diagnosed after complete excision, and 1 had early laryngeal cancer.
Fife – 3 patients had in-situ disease only, found at biopsy, and therefore needed only to attend surgical review.

8 Treatment

First Treatment

Table 8

	Lothian		Borders		Fife		D&G		SCAN	
n=	200		16		74		14		304	
	n	%	n	%	n	%	n	%	n	%
Surgery	92	46.0	7	43.8	39	52.7	5	35.7	**143**	47.0
Radiotherapy	38	19.0	2	12.5	6	8.1	1	7.1	**47**	15.5
Neoadjuvant Chemotherapy	14	7.0	3	18.8	12	16.2	0	0.0	**29**	9.5
Palliative Chemotherapy	1	0.5	0	0.0	1	1.4	1	7.1	**3**	1.0
Synchronous Chemoradiotherapy	27	13.5	3	18.8	9	12.2	0	0.0	**39**	12.8
No Active Treatment	18	9.0	1	6.3	4	5.4	4	28.6	**27**	8.9
Patient refused all therapies	3	1.5	0	0.0	1	1.4	2	14.3	**6**	2.0
Other therapy (includes Cetuximab)	2	1.0	0	0.0	1	1.4	0	0.0	**3**	1.0
Died before treatment	5	2.5	0	0.0	1	1.4	0	0.0	**6**	2.0
Not recorded	0	0.0	0	0.0	0	0.0	1	7.1	**1**	0.3

Note: The above table only includes first treatment and does not reflect the whole treatment plan for H&N patients. A more detailed summary of all treatment modalities can be found in Table 9.

Summary of Treatment – SCAN

n=264. All patients diagnosed with a new primary H&N cancer and treated with anti cancer modalities.

Exclusions = no active treatment (27), refused all therapies (6), died before treatment (6), not recorded (1)

Table 9

		Additional Treatment Modalities				
First Treatment Mode	**1st Treatment**	Chemo/radiation	Chemotherapy	Post Op XRT	XRT only	No Further Treatment
Surgery	**143**	20	1	35	0	87
XRT	**47**	0	0	n/a	0	47
Neoadjuvant Chemotherapy	**28**	25	0	0	2	1
Chemoradiation	**40**	0	1	0	0	39
Palliative Chemotherapy	**3**	0	0	0	1(pall)	2
Other therapy (includes Cetuximab)	**3**	0	0	0	3	0

CT Chest

n=304. All patients discussed and treated 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=	**200**		**16**		**74**		**14**		**304**	
	n	%	**n**	%	**n**	%	**n**	%	**n**	%
CT Chest/Thorax	186	93.0	16	100	67	90.5	13	92.9	**282**	92.8
No imaging recorded	14	7.0	0	0	7	9.5	1	7.1	22	7.2

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 oncologists.
In Lothian of 14 patients without CT chest, 5 were discussed at the MDM but did not need to attend ECC; 5 had salivary gland tumours; 2 had cancer in situ; 1 patients with an unknown primary had a PET scan; 1 patient died before investigation.
In Fife - 7 patients not receiving CT chest were as follows: 3 had in situ disease; 2 had Squamous Cell Cancers of the lip only; 1 was treated privately and therefore imaging is unknown; and 1 was palliative care only and had an extensive tumour that required no imaging.

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	200		16		74		14		**304**	
	n	%	**n**	%	**n**	%	**n**	%	**n**	**%**
CT or MRI Head/Neck	191	95.5	16	100	66	89.2	14	100	**287**	**94.4**
No imaging recorded	9	4.5	0	0	8	10.8	0	100	**17**	**5.6**

Note:
Lothian: Of 9 patients without CT of head & neck, 8 patients had lip cancers or early laryngeal cancers; 1 patient refused treatment.
Fife: Of 8 not receiving CT head and neck: 6 had in situ disease or early T1 laryngeal cancer; 1 was treated privately and therefore imaging is unknown; and 1 had an extensive tumour that required no imaging.

Comparison of the percentage of CT/MRI of primary tumour and CT chest in SCAN 2007-2011

Table 12

	CT/MRI primary tumour %	CT chest %
2007	96.5	88.4
2008	100	96.0
2009	98.0	94.1
2010	98.1	95.6
2011	94.4	92.8

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**	36		2		15		3		56	
	n	%	n	%	n	%	n	%	n	%
Surgery to start of XRT within 42 days	18	50.0	1	50.0	7	46.7	1	33.3	27	48.2

Lothian: The median time from surgery to XRT was 46 days, range 28-84 days.
Fife: The median time from surgery to XRT was 46.5 days, range 28-81 days

Summary of patients missing target

n = 29 (all patients >42 days from surgery to start of XRT)

Days from Surgery to start of XRT	Lothian		Borders		Fife		D&G		SCAN	
n =	18		1		8		2		29	
Age group	n	%	n	%	n	%	n	%	n	%
43-50	6	33.3	0	0	5	62.5	1	50.0	12	41.4
51-60	7	38.9	0	0	1	12.5	1	50.0	9	31.0
61-70	3	16.7	0	0	1	12.5	0	0	4	13.8
71-80	1	5.6	1	100	0	0	0	0	2	6.9
>80	1	5.6	0	0	1	12.5	0	0	2	6.9

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.

The cause of delay from surgery to XRT was an action point from 2010 and will be again for 2011. Although some patients are missing the target by only a week (which may relate to needing to schedule radiotherapy to start at the beginning of a full week) there are also patients missing the target by substantially more. This requires further investigation into individual patient pathways to identify the cause of delay.

9 Histological diagnosis recorded

n= all patients diagnosed and treated in SCAN

Table 14

	Lothian		Borders		Fife		D&G		SCAN	
n=	200		16		74		14		304	
	n	%	n	%	n	%	n	%	n	%
Histological diagnosis	195	97.5	15	93.8	67	90.5	14	100	291	95.7

Comment: This measure was introduced in response to a draft set of Head &Neck cancer standards received from WOSCAN. It may be that this will form part of the H&N Quality Performance Indicators (QPIs) when they are developed in the future.

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=	70		5		11		10		96	
	n	%	n	%	n	%	n	%	n	%
>5mm	19	27.1	0	0.0	3	27.3	2	20.0	24	25.0
1-5mm	26	37.1	3	60.0	5	45.5	4	40.0	38	39.6
<1mm	8	11.4	0	0.0	0	0	1	10.0	9	9.4
Involved margin	8	11.4	1	20.0	2	18.5	0	0.0	11	11.5
Not applicable	0	0.0	0	0.0	1	9.1	0	0.0	1	1.0
Not recorded	9	12.9	1	20.0	0	0	3	30.0	13	13.5

Note: “not applicable” are patients with a re excision of primary tumour which show no malignancy or CiS

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 and treated in SCAN

Table 16

	Lothian		Borders		Fife		D&G		SCAN	
n=	200		16		74		14		304	
	n	%	n	%	n	%	n	%	n	%
Seen by CNS	180	90.0	16	94.1	73	98.6	14	100	282	92.8

12 Treatment related mortality

Death <31 days from definitive surgery

n = patients having definitive surgery
Exclusions = Patients having neck dissection

Table 17

	Lothian	Borders	Fife	D&G	SCAN	%
Number of patients having definitive surgery	86	7	40	5	138	n/a
Patients dying within 30 days of surgery	2	0	2	0	4	**2.9%**

Note: The records of patients dying within 31 days of surgery have been reviewed by the Head & Neck oncology team:
Lothian: of the 2 patients dying within 31 days of surgery 1 patient was treated outwith SCAN, and 1 died following post surgical complications.
Fife: both patients had Stage 4 disease and died following post surgical complications.

Death <31 days from last date of radiotherapy (XRT)

Table 18

	Lothian	Borders	Fife	D&G	SCAN	%
Number of patients having XRT	117	10	28	4	159	n/a
Patients dying during or within 30 days of completion	3	1	1	0	5	3.1%

Note: Lothian: 1 death was unconnected to treatment; 1 patient received palliative XRT; 1 patient was stage 4 and died from his disease during treatment.
Borders: 1 patient was stage 4 and received palliative XRT.
Fife: 1 patient with Stage 4 disease died shortly after starting XRT following on from neo-adjuvant chemotherapy.

Death <31 days from chemotherapy

Table 19

	Lothian	Borders	Fife	D&G	SCAN	%
Number of patients treated with chemotherapy	56	7	44	3	110	n/a
Patients dying during or within 30 days of chemotherapy	1	0	0	0	1	0.9%

Note: The Lothian patient dying within 31 days of last chemotherapy treatment died from non - treatment related causes and is also included in table 18 as being treated with chemoradiation

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 20

	Lothian		Borders		Fife		D&G		SCAN	
n1 = Patients with Neck Dissection	28		0		12		2		**42**	
n2 = Patients with ECS	13 (46.4)		0 (0%)		2 (16.7%)		2 (100%)		**17 (40.5%)**	
	n	%	n	%	n	%	n	%	n	%
ECS proceeding to chemorad or XRT & cetuximab	10	76.9	0	0	2	100	2	100	14	82.4
ECS proceeding to XRT only	3	23.1	0	0	0	0	0	100	3	17.6

Note: Of the 3 patients in Lothian who did not have chemoradiation, 1 had an unknown primary with ECS on neck dissection, 1 was very frail with co morbidities, 1 had previous XRT.

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 21

	Lothian		Borders		Fife		D&G		SCAN	
n=	30		4		17		0		**51**	
	n	%	n	%	n	%	n	%	n	%
Chemorad or XRT & cetuximab	28	93.3	4	100	17	100	0	0.0	**49**	96.1
No chemorad	2	6.7	0	0	0	0	0	0.0	**2**	3.9

Note: Radiotherapy and cetuximab is considered an alternative treatment to chemoradiotherapy for patients unfit for chemotherapy. There were 8 patients in SCAN treated with XRT and cetuximab.

14 T1 larynx first treatment

n= number of patients diagnosed with T1N0 laryngeal cancer

Table 22

	Lothian		Borders		Fife		D&G		SCAN	
n=	17		1		6		3		27	
	n	%	n	%	n	%	n	%	n	%
Surgery/laser	4	23.5	1	100	1	16.7	2	66.7	8	29.6
Radiotherapy	12	70.6	0	0.0	4	66.7	1	33.3	17	63.0
Surgery and Post- op Radiotherapy	0	0.0	0	0.0	1	16.7	0	0.0	1	3.7
No Active treatment	1	5.9	0	0.0	0	0.0	0	0.0	1	3.7

Note: Lothian: 1 patient had no active treatment for larynx cancer as was also found to have another synchronous cancer.

Comment: Patients with early glottic cancer (T1N0) may be treated by endoscopic laser excision, partial laryngectomy or radiotherapy (SIGN 11.1). Radiotherapy offers voice preservation with surgery available as salvage. It would be of interest to audit what modality of treatment the T1a and T1b Larynx patients receive. As a general rule most T1a would be treated with laser excision and T1b with primary XRT. This is an action point for 2012.

Appendix 1: Stage at Presentation

Lothian n=200
Table a

	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	3	1	0	0	4	0	1	1	0	0	10	5.0%
Stage 1	23	2	0	0	17	0	2	3	1	0	48	24.0
Stage 2	9	7	0	2	18	0	5	0	0	0	41	20.5
Stage 3	3	4	1	2	7	1	2	0	0	0	20	10.0
Stage 4	12	29	0	13	9	3	3	0	2	0	71	35.5
Not measured	3	0	*0*	0	0	0	0	0	1	6	10	5.0
Total	**53**	**43**	**1**	**17**	**55**	**4**	**13**	**4**	**4**	**6**	**200**	**100**

Fife n=74
Table b

	Oral cavity	Oro phary nx	Naso phary nx	Hypo phary nx	Larynx (total)	Para nasal Sinus	Major Salivary Glands	Lip	Nose and Ear	Unknown Primary	Total	% of Total
Stage 0	4	0	0	0	2	0	0	2	0	0	8	10.8
Stage 1	10	2	0	0	6	0	0	0	0	0	18	24.3
Stage 2	3	0	1	1	1	0	0	0	0	0	6	8.1
Stage 3	2	2	1	0	1	0	0	0	0	0	6	8.1
Stage 4	4	13	0	3	6	0	2	0	0	0	28	37.8
Not measured	0	2	1	1	0	0	4	0	0	0	8	10.8
Total	**23**	**19**	**3**	**5**	**16**	**0**	**6**	**2**	**0**	**0**	**74**	**100**

Borders n=16
Table c

	Oral cavity	Oro phary nx	Naso phary nx	Hypo phary nx	Larynx (total)	Para nasal Sinus	Major Salivary Glands	Lip	Nose and Ear	Unknown Primary	Total	% of Total
Stage 0	0	0	0	0	1	0	0	0	0	0	1	6.3
Stage 1	2	0	0	0	1	0	0	0	1	0	4	25.0
Stage 2	1	1	0	0	0	0	0	0	0	0	2	12.5
Stage 3	0	0	0	0	0	0	0	0	0	0	0	0
Stage 4	2	4	1	0	0	0	0	0	0	0	7	43.8
Not measured	0	0	0	0	0	0	0	0	0	2	2	12.5
Total	**5**	**5**	**1**	**0**	**2**	**0**	**0**	**0**	**1**	**2**	**16**	**100**

Dumfries and Galloway n=14 (patients treated in SCAN)

Table d

	Oral cavity	Oro phary nx	Naso phary nx	Hypo phary nx	Laryn x (total)	Paran asal Sinus	Major Saliva ry Gland s	Lip	Nose and Ear	Unkno wn Primar y	Total	% of Total
Stage 0	0	0	0	0	0	0	0	0	0	0	0	0.0
Stage 1	0	0	0	0	3	0	0	0	0	0	3	21.4
Stage 2	0	0	0	0	0	0	0	0	0	0	0	0.0
Stage 3	0	1	0	1	0	0	0	0	0	0	2	14.3
Stage 4	0	2	0	1	4	0	0	0	0	0	7	50.0
Not measured	0	0	0	0	0	0	0	0	2	0	2	14.3
Total	**0**	**3**	**0**	**2**	**7**	**0**	0	0	2	0	14	100

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

Table a

	Oral cavity				Oropharynx				Nasopharynx				Hypopharynx				Larynx			
Stage at presentation	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	5.7	17.4	0	N/A	2.3	0	0	0	0	0	0	N/A	0	0	N/A	0	7.3	12.5	50.0	0
Stage 1	43.4	43.5	40.0	N/A	4.7	10.5	0	0	0	0	0	N/A	0	0	N/A	0	30.9	37.5	50.0	42.9
Stage 2	17.0	13.0	20.0	N/A	16.3	0	20.0	0	0	33.3	0	N/A	11.8	20	N/A	0	32.7	6.3	0.0	0
Stage 3	5.7	8.7	0	N/A	9.3	10.5	0	33.3	100	33.3	0	N/A	11.8	0	N/A	50	12.7	6.3	0.0	0
Stage 4	22.6	17.4	40	N/A	67.4	68.4	80.0	66.7	0	0	100	N/A	76.5	60	N/A	50	16.4	37.5	0.0	57.1
Not Recorded	5.7	0	0	N/A	0	10.5	0	0.0	0	33.3	0	N/A	0	20	N/A	0	0	0	0.0	0
Total	100	100	100	N/A	100	100	100	100	100	100	100	N/A	100	100	N/A	100	100	100	100	100

Glossary of Terms

Anterior commisure – 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 Heck 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.