



Working regionally to improve cancer services

# SOUTHEAST SCOTLAND CANCER NETWORK PROSPECTIVE CANCER AUDIT

## MELANOMA CANCER 2010 COMPARATIVE AUDIT REPORT

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## **SCAN COMPARATIVE MELANOMA REPORT 2010**

## PATIENTS DIAGNOSED 1 JANUARY – 31 DECEMBER 2010

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## **INTRODUCTION AND METHODS**

This report presents analysis of data collected on patients newly-diagnosed with primary invasive melanoma ICD-10 C43 (>Clark Level 1) or secondary melanoma with no known primary, except those with melanoma of the eye, between 1 January and 31 December 2010 in the four health board regions comprising the South East Scotland Cancer Network (SCAN) ie Borders, Dumfries and Galloway, Fife and Lothian. Numbers include private patients as well as those treated in the NHS.

## **Basis of Analysis**

There are currently no nationally-agreed standards for melanoma cancer care. Measures presented are draft clinical items within the SIGN Guideline on Management of Cutaneous Melanoma (No 72; Date published: July 2003) and items from the Core Standards for Cancer published by NHS Quality Improvement Scotland (NHSQIS) in March 2008. In addition data is presented on recurrence in the format required by the Scottish Melanoma Group and the Scottish Dermatological Society.

## Patients included in the Report

All patients diagnosed with Primary Invasive Melanoma or secondary melanoma (no known primary) 1 January – 31 December 2010

Network/Health Board/Hospital	Lead Clinician	Audit Support
SCAN	Dr D Kemmett	Gillian Smith
NHS Borders	Dr D Kemmett	Gillian Smith
NHS D&G	Dr J Norris	Kirsten Moffat
NHS Lothian – Department of	Dr V Doherty	Gillian Smith
Dermatology		
NHS Lothian – Department of	Mr M Butterworth	Gillian Smith
Plastic Surgery		
NHS Fife	Dr M Mowbray	Laura Huey

### **Datasets and definitions**

The dataset collected is the Scottish National Core Minimum dataset as published by ISD Scotland in April 2005. This may be viewed on the ISD website (www.isdscotland.org). Further information on the dataset and definitions can be obtained from Gillian Smith, SCAN Cancer Audit Facilitator, Dept of Dermatology, Lauriston Building, Edinburgh EH3 9HA. Gillian.w.smith@luht.scot.nhs.uk

## **Data Quality**

#### **Estimated Case Ascertainment**

An estimate of case ascertainment (the percentage of the population with melanoma recorded in the audit) is made by comparison with the Scottish Cancer Registry three year average data from 2007 to 2009 (see Table 1). High levels of case ascertainment provide confidence in the completeness of the audit recording and contribute to the reliability of results presented. However, levels greater than 100% may be attributable to an increase in incidence. Allowance should therefore be made in reviewing results where numbers are small and variation may be due to chance.

#### **Quality assurance of data**

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

## Process for reviewing and reporting the results

To ensure the quality of the data and the results presented, the process was as follows:

- Individual health board results were reviewed and signed-off locally
- The combined report was circulated to members of the SCAN Skin Group on 30/9/2011
- The report was also reviewed by Dr Daniel Kemmett (Chair of the SCAN Skin Group), 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
- The results and the issues raised by the results were considered by the Lead Clinicians at a meeting on 13/10/2011 and comments were added to the report
- The Lead Clinicians agreed to circulate the report for final sign off by the SCAN Skin Group on 4/11/2011
- Selected items of data were also submitted to the information Services Division (ISD) of National Services Scotland, and were included in a presentation of comparative results at a national networks' meeting on 25/11/2011.

## **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.

Action points for 2010: as part of clinical sign-off areas for improvement are highlighted in the Action Plan 2010 results on Page 8.

Action points from 2009 results: information is provided on progress with Action Plans for 2009 (see Page 9).

## **COMMENT by SCAN SKIN GROUP CHAIR**

Cutaneous melanoma (CM) remains as the fourth most frequent malignancy in Scottish women and sixth in men. This situation is a result of more rapid increase in CM incidence compared with other malignancies. SCAN data has shown ongoing rising numbers of CM since reports started, a situation mirrored in the rest of Scotland.

The cause(s) of the rising rates of CM are not fully known. Most clinicians recognise that the rise may be due to multiple factors.

Currently there are no national standards for CM management. The SCAN Skin Group collects a dataset incorporating the Scottish national dataset (as published by the Information Services Division: <a href="www.isdscotland.org">www.isdscotland.org</a>) together with data fields historically collected for the Scottish Melanoma Group.

The three regional skin cancer networks meet annually to compare data collection methods, results and where feasible survival information. SCAN is able to report the latter because of their long standing high quality melanoma data collection methods and excellent audit facilitators. In the last three years of reporting we have added two generic cancer quality measures, namely contact with CNS and inclusion at MDM to our reports. Both figures have maintained themselves from a high start point in 2008. In Fife, development of link nurses has meant that patients with uncomplicated melanoma have had support input in house.

In June 2010 Dumfries & Galloway (Dr Jon Norris, Consultant Dermatologist) joined the SCAN regional Multidisciplinary Meeting (MDM) and therefore the data for 2010 contains D&G information for the first time. Consequently, some D&G patients have been managed in Lothian particularly for wide excision, SLNB and for oncological advice and have had contact with the Clinical Nurse Specialist (CNS) (Sheena Dryden).

Another change this year sees comparator information with the previous year replaced with the mean of the previous three years to try and avoid rogue trends. The 5 year survival data compares 2005 data with the totals from the previous five years to attempt to identify trends by including extra numbers. The 5 year follow-up data is in keeping with published data. It should be noted that the 5 year figures do not include D&G.

There is little difference in overall numbers between 2009 and 2010 but for the first time there is parity of numbers between males and females. This trend is the norm in other countries. The female to male ratio is now 1:1 having been 1.7:1 five years ago. There is consistency in the high proportion of cases presenting with thin, good prognosis lesions (see Table 2). There are still concerns about persisting numbers of patients with thick, poor prognosis lesions (most notable in the Fife data).

SCAN continues to perform sentinel lymph node biopsies (SLNB) on eligible and clinically appropriate patients thus meaning that the region has a considerable expertise in this technique which seems likely to remain a very useful staging technique in the future. In 2010 however there were two major changes. Mr Udi Chetty retired in April 2010 so all SLNBs are performed within Plastic Surgery. The other change is in the eligibility criteria. Clark level IV has been replaced with a measure of the mitotic rate. Patients are now offered SLNB if the mitotic rate is greater than or equal to one per mm<sup>2</sup>.

In terms of at risk population CM affects a significant number of patients of working age (see Table 3a); this emphasises melanoma's impact on population both economically and socially.

Diagnosis and initial surgical management of CM are increasingly the workload of dermatologists rather than surgeons. More than three quarters of patients have their initial treatment/excision at one time and as a result of redesign in dermatology this usually occurs at the time of first visit. This has proved an effective method of meeting both patient need and waiting times constraints.

Approximately 70% of cases of CM are referred in urgently. 17% occur in patients attending for review (often of another skin cancer) or are noted incidentally in patients attending for other reasons. In addition the majority of the 18% referred in as routine are up triaged to urgent on the basis of new active triaging approaches. This means that overall CM cases are treated within the 62 day target even if not referred urgently which is clearly clinically desirable.

The Skin Cancer MDM continues to expand. Noteworthy is that the number referred with difficult or recurrent CM continues to rise (over 60 from 40 in 2009). This may be expected to increase with improved recruitment to clinical trials and also new licensed drugs to treat CM.

Action points from the audit include speeding up communication with the Plastic Surgery Department at St John's for patients referred from Fife and D&G. It was also suggested that an 'internal' standard time between diagnosis and wide excision be introduced which could be audited in subsequent years. There is also a need for universal agreement on the measurement of mitotic rate between Lothian and Fife pathology departments to ensure that referral for SLNB is consistent across the region.

In summary it is very encouraging to note the continued high quality of data collected to be used by the skin cancer team to improve patient outcomes. We are very much concerned about the threat to reduce audit support which would have a major impact on the quality of data.

Dr Danny Kemmett Consultant Dermatologist Chair, SCAN Skin Group October 2011

## **DOCUMENT HISTORY**

Version	Circulation	Date	Comments
Version 1	Draft circulated to SCAN Group	30/09/2011	Circulated to clinicians for "sense checking". Comments to be received by 10/10/2011
Version 2	Lead Clinicians and Audit Staff for sign-off meeting	13/10/2011	Suggested amendments and action points discussed
Version 3	SCAN Skin Group	4/11/11	Signed off after discussion at SCAN Skin Group and subject to final minor amendments and addition of overall comment
Version 4	SCAN Skin Group	31/1/12	Comments to be received by 10/10/12. Signed off 24/02/2012.
	Clinical Governance Groups, Lead Managers and Chairs in the four health boards and to the SCAN Regional Cancer Planning Group.		Circulated to Health Board Clinical Governance 28/02/2012
			Circulated to RCPG 30/03/2012
Version 4W	Lodged on SCAN website June 2012		Review for any disclosive information 07/03/2012

## **ACTION PLAN MELANOMA 2010**

Dancet		Droposed setion	Which clinical standard
Report Section	Possible area for improvement	Proposed action	Which clinical standard will this meet?
Table 2	Continuing higher proportion of thicker melanomas in Fife	Fife service to work with GPs on reinforcing the messages to patients about seeking early advice on skin lesions and to GPs about criteria for patient referral. Consider in context of age standardised population and compare with West Lothian data.	No specific clinical standard but outcome for patients diagnosed with thicker lesions is poorer
Table 7	Inequity for Lothian and Borders patients – nearly 50% of Lothian and Borders patients waiting >2 weeks for pathology results. Not a problem in Fife and D&G.	Request Service managers in Borders and Lothian to review waits to issue of pathology in light of problems experienced in level of technical laboratory staff at NHS Lothian Pathology Dept.  Pathologists to review turnaround times to	There are no guidelines about the optimum time period for the issue of pathology reports. This issue was highlighted in 2009 report. Problems brought again to attention of Service managers June 2011.  See also Table 9 re need for
		ensure that all biopsies marked 'urgent' are reported within 2 weeks	improvement of timescales through the care pathway
Table 9	Review of time between diagnosis and wide local excision	Speed up communication between St John's Plastic Surgery and Fife and D&G Set 'internal' standard of 90 days; re-audit cases >90 days	There are no specific standards but there is need for improvement of timescales through the care pathway as highlighted in patient experience survey
Tables 10 and 11	Improving consistency of interpretation of criteria for eligibility for SLNB in view of new protocol	Ensure use of standard published methodology for measure of mitotic rate	No clinical standard but mitotic rate now included in calculating eligibility for SLNB in view of SCAN protocol
	Attendance by Pathologist from Fife Laboratory at fortnightly MDM	Fife Pathologist will attend MDM from March/April 2012	

## **Update on ACTION PLAN MELANOMA 2009**

Report	Possible area for	Proposed action	Update
Section	improvement	-	-
Table 5	Need to ensure adequate resource available for same day surgery in Dermatology tumour clinics	Ensure adequate surgical resource is supported	Appointment of Consultant Dermatological Surgeon and Dermatologist and additional clinics from July 2011
Table 7	Percentage of Lothian and Borders patients waiting >2 weeks for path results from	Service managers: Borders and Lothian Review 2010 waits to issue of pathology	Highlighted in 2009 Action Points  Problems of staffing
	diagnostic biopsy or excisions in 2009 is 58.2%	reports as soon as possible in light of problems experienced in 2009 with Administrative	difficulties again brought to attention of Service managers June 2011
		and Laboratory Staffing levels in NHS Lothian, Pathology Dept	Median wait for results in 2009 was 15 days; median wait in 2010 was 14 days
Table 10	Review of time between diagnosis and wide local excision	CNS to review impact on patients of any wait between surgical	Second Patient Experience Survey due in 2011:
		treatments as part of second Patient Experience Survey in 2011	No funding available to conduct survey
Table 11	Need for ongoing review of protocol for Sentinel Lymph Node Biopsy	Dermatologists and Plastic Surgeons to review awaited papers/ presentations which will inform development of protocol for this procedure	No change to protocol in 2010

**Table 1: Estimate of Case ascertainment** 

Health Board	2010 SCAN Registrations	2007 - 2009 Average Number of Cancer Registrations per year*	Estimated Case Ascertainment
Borders	28	24	116.7%
D&G	41	38	107.9%
Fife	49	62	79.0%
Lothian	183	200	91.5%
Total:	301	324	92.9%

<sup>\*</sup>Source: Scottish Cancer Registry, ISD Malignant melanoma of the skin (ICD-10 C43)

Ref: IR2010-02785 (2007 and 2008), Data extracted: December 2010 and

Ref: IR2011-02316 (2009), Data extracted: October 2011

Number of registrations of residents of Scotland diagnosed in the SCAN region by hospital of diagnosis

Note: This estimate of case ascertainment (the number of patients with melanoma identified for audit) is based on hospital of diagnosis. Some residents of NE Fife are diagnosed and treated in NHS Tayside and are not included in this report.

Table 2: Registrations by Breslow Depth n301

	<u> </u>	<u> </u>								
MALE	Bor	ders	D8	ιG	Fi	fe	Loth	nian	SC	AN
mm	n15	%	n26	%	n17	%	n93	%	n151	%
0 - 0.99	9	60.0	10	38.5	9	52.9	51	54.8	79	52.3
1 - 1.99	1	6.7	6	23.1	3	17.6	15	16.1	25	16.6
2 - 2.99	1	6.7	2	7.7	2	11.8	7	7.5	12	7.9
3 - 3.99	1	6.7	1	3.8	0	0.0	7	7.5	9	6.0
>= 4	3	20.0	2	7.7	3	17.6	10	10.8	18	11.9
n/a	0	0.0	5	19.2	0	0.0	1	1.1	6	4.0
Mets.	0	0.0	0	0.0	0	0.0	2	2.2	2	1.3
TOTAL	15	100	26	100	17	100	93	100	151	100

SCAN	2007-9
n352	%
188	53.4
63	17.9
25	7.1
18	5.1
41	11.6
6	1.7
11	3.1
352	100

FEMALE	Boro	ders	D&G		Fife		Lothian		SCAN	
mm	n13	%	n15	%	n32	%	n90	%	n150	%
0 - 0.99	7	53.8	8	53.3	17	53.1	62	68.9	94	62.7
1 - 1.99	3	23.1	4	26.7	6	18.8	16	17.8	29	19.3
2 - 2.99	3	23.1	0	0.0	3	9.4	3	3.3	9	6.0
3 - 3.99	0	0.0	0	0.0	0	0.0	2	2.2	2	1.3
>= 4	0	0.0	2	13.3	5	15.6	3	3.3	10	6.7
n/a	0	0.0	1	6.7	1	3.1	1	1.1	3	2.0
Mets.	0	0.0	0	0.0	0	0.0	3	3.3	3	2.0
TOTAL	13	100	15	100	32	100	90	100	150	100

SCAN 2007-9							
n481	%						
290	60.3						
103	21.4						
28	5.8						
16	3.3						
35	7.3						
4	0.8						
5	1						
481	100						

Ratio of male to female (excluding D&G)

Year	Male	Female
2010	1	1.1
2009	1	1.1
2008	1	1.4
2007	1	1.7

COMMENT: The ratio of male to female with melanoma has now reached parity, which is in line with other networks. ACTION POINT: Although results based on small numbers need to be viewed with caution the continuing higher proportion of thicker melanomas at diagnosis in Fife is under review by the Fife service. It is planned to work with GPs on reinforcing the messages to patients about seeking early advice on skin lesions and to GPs about criteria for patient referral.

Table 3: Age at presentation n301

1 01.010 01 1 1	. word or 7 go at processuation noor									
MALE	Bore	ders	D8	kG	Fif	е	Loth	nian	SC	AN
Age	n15	%	n26	%	n17	%	n93	%	n151	%
0-19	0	0.0	0	0.0	0	0.0	1	1.1	1	0.7
20-34	1	6.7	3	11.5	0	0.0	3	3.2	7	4.6
35-44	1	6.7	0	0.0	1	5.9	8	8.6	10	6.6
45-54	1	6.7	3	11.5	7	41.2	12	12.9	23	15.2
55-64	6	40.0	5	19.2	2	11.8	19	20.4	32	21.2
65-74	2	13.3	5	19.2	1	5.9	20	21.5	28	18.5
>=75	4	26.7	10	38.5	6	35.3	30	32.3	50	33.1
TOTAL	15	100	26	100	17	100	93	100	151	100

SCAN	2007-09
n352	%
4	1.1
18	5.1
39	11.1
41	11.6
79	22.4
94	26.7
77	21.9
352	99.9

FEMALE	Boro	ders	D8	kG	Fife	е	Loth	nian	SC	AN
Age	n13	%	n15	%	n32	%	n90	%	n150	%
0-19	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
20-34	2	15.4	3	20.0	2	6.3	16	17.8	23	15.3
35-44	1	7.7	0	0.0	4	12.5	12	13.3	17	11.3
45-54	1	7.7	2	13.3	9	28.1	21	23.3	33	22.0
55-64	3	23.1	1	6.7	5	15.6	17	18.9	26	17.3
65-74	3	23.1	3	20.0	6	18.8	8	8.9	20	13.3
>=75	3	23.1	6	40.0	6	18.8	16	17.8	31	20.7
n/known	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	13	100	15	100	32	100	90	100	150	100

SCAN	2007-09
n481	%
8	1.7
66	13.7
71	14.8
97	20.2
77	16.0
67	13.9
94	19.5
1	0.0
481	99.8

As with most cancers the incidence of melanoma rises with age, but it is notable that, unlike most cancers, approximately half of melanoma patients are of working age.

Table 3a: Incidence in Working Age Population (Males aged 20 to 64 inclusive and Females aged 20 to 59 inclusive)

		Bor	ders			D8	kG			Fi	fe			Loth	ian			SC	CAN	
Total number	n28		%		n41		%		n49		%		n183		%		n301		%	
Working Age Incidence		13		46.4		17		41.5		27		55.1		98		53.6		155		51.5

Table 4a: Anatomical Site n301

Site:	SCAN	I 2010
	n151	%
	MALE	
Head and Neck Total:	35	23.2
Face	23	15.2
Vermilion border of lip	0	0.0
Scalp	5	3.3
Neck	3	2.0
Ears	4	2.6
Trunk anterior	1	0.7
Trunk anterior above waist	14	9.3
Trunk anterior below waist	2	1.3
Trunk posterior	5	3.3
Trunk posterior above waist	43	28.5
Trunk posterior below waist	4	2.6
Arm	2	1.3
Arm above elbow	8	5.3
Arm below elbow	12	7.9
Leg	0	0.0
Leg above knee	6	4.0
Leg below knee	11	7.3
Dorsum of foot	0	0.0
Dorsum of hand	0	0.0
Palm	0	0.0
Sole	2	1.3
Mucosal	3	2.0
Subungual hand	0	0.0
Subungual toe	1	0.7
Mets at presentation	2	1.3
Not recorded/not known	0	0.0
TOTAL	151	100

SCAN 2	2007-09
n352	%
MA	\LE
96	27.3
58	16.5
0	0.0
17	4.8
11	3.1
10	2.8
6	1.7
37	10.5
1	0.3
17	4.8
77	21.9
7	2.0
1	0.3
12	3.4
28	8.0
0	0.0
17	4.8
23	6.5
3	0.9
1	0.3
0	0.0
5	1.4
4	1.1
3	0.9
3	0.9
11	3.1
0	0.0
352	100

00111	2212
SCAN	
n150	%
FEMA	
24	16.0
18	12.0
0	0.0
0	0.0
6	4.0
0	0.0
2	1.3
9	6.0
3	2.0
2	1.3
20	13.3
3	2.0
0	0.0
19	12.7
11	7.3
0	0.0
19	12.7
22	14.7
3	2.0
2	1.3
2	0.0
1	0.7
4	2.7
1	0.7
0	0.0
3	2.0
2	1.3
150	100

SCAN 20	<del></del>
n481	%
FEMA	LE
85	17.7
69	14.3
1	0.2
4	0.8
10	2.1
1	0.2
4	0.8
27	5.6
6	1.2
8	1.7
49	10.2
5	1.0
5	1.0
59	12.3
39	8.1
7	1.5
57	11.9
100	20.8
5	1.0
2	0.4
0	0.0
9	1.9
5	1.0
4	0.8
0	0.0
5	1.0
0	0.0
481	100

Table 4b: Histogenetic Type of Melanoma n301

Histological Pattern	SCAN 2010		
MALE	n151	%	
Lentigo maligna melanoma (lmm)	23	15.2	
superficial spreading (ssmm)	80	53.0	
nodular	20	13.3	
acral/mucosal	0	0.0	
acral	2	1.3	
other	2	1.3	
unclassifiable	21	13.9	
desmoplastic	1	0.7	
not recorded	0	0.0	
secondary	2	1.3	
TOTAL	151	100	

Percentage totals r	rounded to	100%
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Histological Pattern	SCAN	I 2010
FEMALE	n150	%
Lentigo maligna melanoma (lmm)	19	12.7
superficial spreading (ssmm)	90	60.0
nodular	13	8.7
acral/mucosal	0	0.0
acral	4	2.7
mucosal	2	1.3
other	3	2.0
unclassifiable	14	9.3
desmoplastic	1	0.7
not recorded	1	0.7
secondary	3	2.0
TOTAL	150	100

ercentage totals round	ed to 1009	%

SCAN 2	2007-09
n352	%
64	18.2
172	48.9
46	13.1
13	3.7
0	0.0
9	2.6
30	8.5
0	0.0
7	2.0
11	3.1
352	100

SCAN 2	007-09
n481	%
65	13.5
276	<i>57.4</i>
37	7.7
11	2.3
0	0.0
0	0.0
27	5.6
50	10.4
0	0.0
10	2.1
5	1.0
481	100

Table 4c: Histogenetic Type and Anatomical Site n 301

## MALE n151

	IVII (EE III C	<i>,</i> ,																						
	Histo type	Face	Scalp	Neck	Ear	Anterior Trunk	Trunk anterior above waist	Trunk anterior below waist	Trunk posterior	Trunk posterior above waist	Trunk posterior below waist	Arm	Arm above elbow	Arm below elbow	Leg above knee	Leg below knee	Dorsum of foot	Dorsum of hand	Sole	Mucosal	Subungual foot	Not recorded	Mets	Total
ı	lmm	16		2	1		1			1			1	1										23
	ssmm	1	1		2	1	7	2	3	34	1	2	7	6	5	7				1				80
	nodular	2	3		1		3	1	2	3	1			2	1	1								20
	unclass	4		1			3			4	2			3		2				1	1			21
	other															1				1				2
	acral																		2					2
	desmo		1																					1
	TOTAL	23	5	3	4	1	14	3	5	42	4	2	8	12	6	11			2	3	1		2	

## FEMALE n150

Histo type	Face	Scalp	Neck	Ear	Anterior Trunk	Trunk anterior above waist	Trunk anterior below waist	Trunk posterior	Trunk posterior above waist	Trunk posterior below waist	Arm	Arm above elbow	Arm below elbow	Leg above knee	Leg below knee	Dorsum of foot	Dorsum of hand	Sole	Mucosal	Subungual foot	Not recorded	Mets	Total
lmm	14		1			1			1			1	1										19
ssmm	2		4		2	5	3	2	15	3		13	10	15	13	2					1		90
nodular						1			2			3	1	2	3				1				13
unclass			1			2			1			2		3	3		1		1				14
other	1								1					1									3
acral																2		1		1			4
mucosal																			2				2
desmo	1																						1
nr/na																					1		1
TOTAL	18		6		2	9	3	2	20	3		19	12	21	19	4	1	1	4	1	2	3	

Table 5: Mode and Urgency of Referral n301

Mode and urgency of referral	Bore	ders	D8	λG	Fi	fe	Lotl	nian	SC	AN
	n28	%	n41	%	n49	%	n183	%	n301	%
Urgent with suspicion of cancer	0	0.0	12	29.3	16	32.7	13	7.1	41	13.6
Urgent Referral	17	60.7	1	2.4	13	26.5	78	42.6	109	36.2
Self Referral to A&E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
GP referral to A&E	0	0.0	0	0.0	0	0.0	1	0.5	1	0.3
Routine Referral	5	17.9	7	17.1	11	22.4	31	16.9	54	17.9
Urgency not recorded	0	0.0	0	0.0	0	0.0	2	1.1	2	0.7
Diagnosed by GP	3	10.7	9	22.0	2	4.1	6	3.3	20	6.6
Incidental finding	0	0.0	3	7.3	3	6.1	31	16.9	37	12.3
Review patient	0	0.0	2	4.9	3	6.1	8	4.4	13	4.3
'Other'	0	0.0	7	17.1	1	2.0	0	0.0	8	2.7
Mode of referral not known	3	10.7	0	0.0	0	0.0	13	7.1	16	5.3
TOTAL	28	100	41	100	49	100	183	100	301	100

SCAN 2	007-09
n833	%
27	3.2
355	42.6
4	0.5
1	0.1
176	21.1
42	5.0
84	10.1
55	6.6
64	7.7
9	1.1
16	1.9
833	100

### COMMENT:

Of n207 patients known to have been referred by their GP, n151 (72.9%) were 'urgent' referrals; this compares with 63.7% in the period 2007 to 2009. Shaded areas indicate numbers referred but not diagnosed by GPs. Approximately 17% of the total patients registered were either incidental findings or review patients.

It was noted that the "Other" referrals in Dumfries & Galloway may have been received through a series of Roadshows undertaken by Dr Jon Norris, Consultant Dermatologist.

Overall, the proportion of patients diagnosed by GP has reduced in recent years. It is accepted that there will always be some lesions excised by GP which unexpectedly prove to be melanomas. The emphasis remains on ensuring that GPs have correct advice and information on when to refer patients with suspect lesions.

Table 6: Method of Diagnosis n301

Method of	В	&L	D8	&G	Fi	fe	SC	AN
diagnosis	n211	%	n41	%	n49	%	n301	%
*Shave/Curettage	7	3.3	3	7.3	1	2.0	11	3.7
*Incision/Partial Bx	36	17.1	6	14.6	7	14.3	49	16.3
Excision Biopsy	156	73.9	32	78.0	41	83.7	229	76.1
Wide excision	4	1.9	0	0.0	0	0.0	4	1.3
Amputation	0	0.0	0	0.0	0	0.0	0	0
FNA	0	0.0	0	0.0	0	0.0	0	0
Other	5	2.4	0	0.0	0	0.0	5	1.7
Core biopsy (mets)	0	0.0	0	0.0	0	0.0	0	0
Not recorded	3	1.4	0	0.0	0	0.0	3	1
TOTAL	211	100	41	100	49	100	301	100

'Other' methods of diagnosis in this cohort were: excision biopsy of nasal mass; subtotal parotidectomy; cervical lesion; groin node biopsy and lung biopsy

SCAN	N 2007-9
n833	%
30	3.6
149	17.9
629	75.5
12	1.4
3	0.4
2	0.2
5	0.6
1	0.1
2	0.2
833	100

<sup>\*</sup>Sampling of suspect lesions (20%) is used when there is diagnostic doubt or for planning/staging purposes in larger lesions or those on cosmetically challenging areas.

Table 7: Time from Diagnostic Biopsy/Excision to Issue of Pathology Report n301

Range	3 -	68	1-	18	1.	-27	1 - 68	
Median	14		9		7		n/a	
>14	92	45.1	2	4.9	9	18.4	103	35.0
<=14	112	54.9	39	95.1	40	81.6	191	65.0
inapplicable	0		U		0		0	
Data n/a	(7)		0		0		(7)	
> 28	14	6.9	0	0.0	0	0.0	14	4.8
22 - 28	16	7.8	0	0.0	3	6.1	19	6.5
15 - 21	62	30.4	2	4.9	6	12.2	70	23.8
8 - 14	95	46.6	8	19.5	14	28.6	117	39.8
0 - 7	17	8.3	31	75.6	26	53.1	74	25.2
Time Interval in Days	n211 (n204)	%	n41 <i>(n41)</i>	%	n49 <i>(n49)</i>	%	n301 ( <i>n</i> 294)	%
	Borders 8	& Lothian	D&G			ife		AN

SCAN	2007-09
n833	
(n821)	%
165	20.1
294	35.8
195	23.8
87	10.6
80	9.7
10	
2	
459	55.9
374	45.6

Note: Percentage values from total, less not available and inapplicable

Note: Histology is reported by pathology laboratories as follows:

- Borders and Lothian histology by NHS Lothian, University Hospitals Division Pathology Department, Edinburgh
- Fife histology reported by Fife Area Laboratory, Kirkcaldy
- Dumfries and Galloway histology by Pathology Department, Dumfries & Galloway Royal Infirmary

COMMENT: For 2010 the percentage of patients in Lothian & Borders waiting longer than 14 days for the pathology report of biopsies has not improved significantly. 45% are still waiting longer than that, and this is inequitable compared to the service received in Fife and Dumfries & Galloway. There are no guidelines about the optimum time period for the issue of pathology reports but it was identified as a problem in a Patient Experience Survey in 2008. The problem was identified in the 2009 report, and most recently was brought to the attention of Service managers in June 2011. Marie Mathers, Consultant Pathologist, comments that Lothian pathology has experienced continued problems with suboptimal technical staffing levels in the biopsy laboratory. In addition, the number of consultant PAs available for skin biopsy reporting has been reduced. Both factors are likely to be a significant factor in overall turnaround times.

ACTION POINT: To request Service managers in Borders and Lothian to review waits to issue of pathology in light of problems experienced in level of technical laboratory staff at NHS Lothian Pathology Dept

Table 8a: Specialty of Clinician Diagnosing melanoma and Health Board of diagnosis n301

	Boro	ders	D8	kG	F	ife	Loth	nian	SCAN	
	n28	%	n41	%	n49	%	n183	%	n301	%
Dermatologist	25	89.2	28	68.3	39	79.6	149	81.4	241	80.1
General Surgeon	0	0.0	2	4.9	3	6.1	2	1.1	7	2.3
Plastic Surgeon	0	0.0	0	0.0	2	4.1	20	10.9	22	7.3
GP	3	10.7	7	17.1	2	4.1	6	3.3	18	6.0
Other	0	0.0	4	9.8	3	6.1	5	2.7	12	4.0
n/a	0	0.0	0	0.0	0	0.0	1	0.5	1	0.3

SCAN	2007-09
n833	%
636	76.4
11	1.3
67	8.0
84	10.1
34	4.1
1	0.1

Table 8b: Specialty of Clinician undertaking second procedure of patients diagnosed initially in these Health Boards

	Boro	ders	D8	ķG	F	ife	Loth	nian	SC	AN
	n28	%	n41	%	n49	%	n183	%	n301	%
Dermatologist	14	50.0	9	22.0	5	10.2	51	27.9	79	26.2
General Surgeon DGRI	0	0.0	10	24.4	0	0.0	0	0.0	10	3.3
General Surgeon* WGH	0	0.0	0	0.0	0	0.0	5	2.7	5	1.7
General Surgeon QMH	0	0.0	0	0.0	1	2.0	0	0.0	1	0.3
Oral/Maxillofacial DGRI	0	0.0	8	19.5	0	0.0	0	0.0	8	2.7
Plastic Surgeon ST J/WGH	14	50.0	3	7.3	25	51.0	118	64.5	160	53.2
Plastic Surgeon QMH/VHK	0	0.0	0	0.0	11	22.4	0	0.0	11	3.7
Plastic Surgeon Ninewells	0	0.0	0	0.0	3	6.1	0	0.0	3	1.0
Other	0	0.0	4	9.8	3	6.1	5	2.7	12	4.0
No second procedure	0	0.0	6	14.6	1	2.0	4	2.2	11	3.7
Plastic Surgeon (MF)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
not recorded	0	0.0	1	2.4	0	0.0	0	0.0	1	0.3

SCAN	2007-09
n833	%
180	21.6
0	0.0
192	23.0
1	0.1
0	0.0
356	42.7
44	5.3
0	0.0
27	3.2
29	3.5
1	0.1
3	0.4

COMMENT: Most patients now have their wide local excision (second procedure) undertaken by the Plastic Surgery service. Previously about a quarter of the operations were done by Mr U Chetty, a General Surgeon with Special Interest, who retired in 2010.

<sup>\*</sup> with special interest

## Table 9: Time from Diagnosis to Wide Local Excision n301

After the diagnosis of melanoma is obtained (usually when patients first present), all patients thereafter are referred on for a second procedure to ensure complete clearance of the lesion. The table below shows the wait for the second stage of treatment following excision or biopsy of the lesion.

	Borders	%	D&G	%	Fife	%	Lothian	%	SCAN	SCAN	SCAN
Time interval										%	cumulative
in days	n28	n28	n41	(n33)	n49	(n48)	n183	(n162)	n301	(n271)	% (n271)
1-14	0	0.0	4	12.1	0	0.0	2	1.2	6	2.2	2.2
15-28	0	0.0	7	21.2	2	4.2	17	10.5	26	9.6	11.8
29-42	3	10.7	7	21.2	6	12.5	34	21.0	50	18.5	30.3
43-56	8	28.6	7	21.2	15	31.3	45	27.8	75	27.7	57.9
57-70	8	28.6	4	12.1	8	16.7	34	21.0	54	19.9	77.9
71-84	8	28.6	2	6.1	8	16.7	18	11.1	36	13.3	91.1
85-98	0	0.0	1	3.0	6	12.5	8	4.9	15	5.5	96.7
99-112	1	3.6	1	3.0	2	4.2	3	1.9	7	2.6	99.3
113-126	0	0.0	0	0.0	0	0.0	1	0.6	1	0.4	99.6
127-140	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	99.6
>140	0	0.0	0	0.0	1	2.1	0	0.0	1	0.4	100.0
Inapplicable*	0		8		1		21		30		
≤28	0	0.0	11	33.3	2	4.2	19	11.7	32	11.8	11.8
29-56	11	39.3	14	42.4	21	43.8	79	48.8	125	46.1	57.9
>56	17	60.7	8	24.2	25	52.1	64	39.5	114	42.1	100
Range	31-101		3-105		23-160		8-122		3 - 160		
Median	57.5		53		57		51		n/a		

SCAN 2007-09 %							
		cumulative					
n833	(n759)	% n759					
11	1.4	1.4					
56	7.4	8.8					
142	18.7	27.5					
165	21.7	49.3					
145	19.1	68.4					
111	14.6	83.0					
57	7.5	90.5					
32	4.2	94.7					
21	2.8	97.5					
5	0.7	98.2					
14	1.8	100.0					
74							
67	8.8	8.8					
307	40.4	49.2					
385	50.7	100					

Note: Percentage values from total less inapplicable\* (\*patient declined, no second procedure, diagnosis on wide local excision, missing date(s) therefore unable to calculate)

COMMENT: It was recognised following the audit results in 2009 that the pathway for patients to proceed to second procedure should be speeded up. It was planned to review the results of a repeat Patient Experience Survey to assess the impact on patients, but regrettably funding was not available for this survey. Two actions are however proposed as follows:

ACTION POINTS: Streamline referral to the plastic surgery service through action by the CNS. Although there are no standards for time to second procedure it is proposed to audit results against a maximum number of days.

## Table 10: Sentinel lymph node biopsy (SLNB) and Lymph node clearance

SIGN Guideline 72 Cutaneous Melanoma: "The sentinel lymph node is defined as the first node in the lymphatic basin that drains the lesion and is the node at greatest risk for the development of metastasis." Biopsy of this node can assist in staging patients at risk of metastatic disease. Currently there is no national standard for when patients should be considered for sentinel lymph node biopsy.

January 2010 Protocol of eligibility for consideration of SLNB in SCAN:

• Breslow depth ≥1.0mm or Breslow depth <1.0 but mitotic rate ≥1mm²

## Number and % of patients eligible for SLNB

	Borders	D&G*	Fife	Lothian	SCAN
	n28	n41	n49	n183	n260
Number eligible for SLNB	12	n/a	32	78	122
% eligible for SLNB	42.9	n/a	65.3	42.6	46.9

<sup>\*</sup>Note that D&G aligned itself with the SCAN service about half way through 2010

In the light of the new protocol for SLNB (including mitotic rate) further work is required to improve consistency of criteria for eligibility. See ACTION POINTS.

Data in the table below shows the number of patients having sentinel lymph node biopsy and percentage of those where nodes are positive. Data on patients offered SLNB is recorded at the MDM.

## Numbers having SLNB and % with positive nodes

SLNB Status	Borders	D&G	Fife	Lothian	SCAN
Patients having SLNB	9	4	20	57	90
Patients with +ve SLNB	2	0	7	6	15
% Patients with +ve SLNB	22.2	0.0	35.0	10.5	16.7

Not all patients in Borders, Fife and Lothian who met the above criteria of being eligible for consideration of SLNB went through the procedure. This could be due to co-morbidity, contra indications or patient refusal; this may also apply to lymph node clearances. n87 (96.7%) SLNBs were performed by Plastic Surgeons.

## 2007-09 Protocol of eligibility for consideration of SLNB in SCAN:

Breslow depth ≥1.0mm or Clark Level IV with Breslow depth <1.0mm

SCAN (excl D&G)	2007		2008		2009	
	n269	%	n281	%	n283	%
Eligible for SLNB	135	50.2	145	51.6	138	48.8
Patients having SLNB	77	28.6	92	32.7	91	32.2
Patients with +ve SLNB	21	7.8	10	3.6	15	5.3
% Patients with +ve SLNB	27.3		10.9		16.5	

SCAN	2007-09
n833	%
418	50.2
260	31.2
46	5.5
17.7	

Between 2007 and 2009 62% of those eligible for SLNB went on to have the procedure

In 2007, 2008 and 2009 there was an approximate 50% split between SLNBs performed by General Surgeon (with special interest) and by Plastic Surgeon.

Current practice is for patients with a positive sentinel node to proceed to radical node dissection. 14 of the 15 patients with positive SLNB proceeded to node dissection; one was positive; three patients had no previous SLNB.

	Borders	D&G	Fife	LUHT	SCAN	SCAN %
Lymph Node Clearance	2	0	7	8	17	
Positive Lymph Nodes	0	0	1	3	4	23.5

SCAN	SCAN 2007-09					
	%					
61						
28	45.9					

In SCAN (excluding D&G) 70% of those eligible for SLNB went on to have the procedure.

## Table 11: Discussion at Multidisciplinary Meeting (MDM) n301

SCAN Draft Clinical Effectiveness Measure: All patients should be treated or have their treatment reviewed by clinicians with expertise in the management of melanoma and who have an active role in the MDM. The protocol for MDM includes keeping register of clinicians who attend.

Scottish Core Cancer Standards 2008 3c: Patients have access to appropriate specialist nursing staff.

	Borders	D&G	Fife	Lothian	SCAN
	n28	n41	n49	n183	n301
Discussed at MDM	28	25	49	169	271
Not discussed at MDM	0	16	0	14	30
% discussed at MDM	100%	61.0%	100%	92.3%	90.0%

SCAN				
2007-09				
n824*				
789				
35				
95.8%				

Note: In Lothian, the majority of patients not referred to MDM were partially or wholly treated in private sector.

D&G joined the SCAN MDM in June 2010 and a number of those patients marked as "not discussed" may have been discussed at the Glasgow MDM.

Table 12: Contact with Skin Cancer Nurse Specialist (CNS) n208\*

	Borders	D&G	Fife	Lothian	SCAN
	n28	n41	n48*	n180*	n297*
Contact with CNS	23	4	31	163	221
No contact with CNS	5	37	17	17	76
% contact with CNS	82.1%	9.8%	64.6%	90.6%	74.4%

SCAN						
2007-09						
n817*						
710						
107						
86.9%						

Melanoma patients diagnosed in the SCAN region who are having definitive treatment in Lothian have access to a cancer nurse specialist (CNS) who is based in Lothian. The CNS also contacts patients who have been diagnosed with recurrence and/or progressive disease as they may tend to link in with Lothian for surgical or oncological treatments.

D&G joined the SCAN service in June 2010 and changes are being made to ensure that they are covered by the CNS service.

In addition to the regional CNS, Fife patients also have the opportunity to meet with specialist Dermatology Link Nurses based in NHS Fife. Ten of the 17 Fife patients who did not see the regional CNS had contact with the Fife Link Nurses.

<sup>\*</sup> Numbers adjusted to exclude patients with multiple primaries or (in 2007) not eligible for audit

Table 13: Five Year Follow-up of Patients diagnosed with malignant melanoma in 2005 n198

SCAN Region (excluding Dumfries and Galloway)

Year of Diagnosis: 2005

Clark Level ≥ II or metastatic disease at presentation (no known primary)

Breslow Depth		0 - 0.99	1 - 1.99	2 - 2.99	3 - 3.99	4 +	Breslow n.a	Mets
Alive and disease	М	27	13	3	1	0	2	0
free	F	46	20	6	0	2	1	0
Alive, previous	M	1	2	0	2	1	0	0
recurrence, now disease free	F	1	3	1	2	0	0	0
Alive, ongoing	М	0	2	1	1	0	0	0
recurrence	F	0	0	0	0	0	1	0
Dead of melanoma	M	*1	1	2	0	3	2	1
Dead of Melanoma	F	0	0	2	1	8	0	0
Dead other causes	M	5	1	0	0	2	1	0
Dead officer causes	F	1	3	1	1	1	0	0
Dead cause n/a	M	0	0	0	0	2	0	0
Deau Cause II/a	F	0	2	0	0	3	0	1
Lost to Follow up	M	3	0	0	1	0	1	0
Lost to 1 ollow up	F	6	2	0	1	0	0	0
MALE	M	n37	n19	n6	n5	n8	n6	n1
Overall 5 year	M	6	2	2	0	7	3	1
survival: deceased	%	16.2	10.5	33.3	0.0	87.5	50.0	100.0
Dead of melanoma	M	*1	1	2	0	3	2	1
Dead of melanoma	%	(2.7)	5.3	33.3	0.0	37.5	33.3	100.0
FEMALE	F	n54	n30	n10	n5	n14	n2	n1
Overall 5 year	F	1	5	3	2	12	0	1
survival: deceased	%	1.9	16.7	30.0	40.0	85.7	0.0	100.0
Dead of melanoma	F	0	0	2	1	8	0	0
beau of melanoma	%	0.0	0.0	20.0	20.0	57.1	0.0	0.0

<sup>\*</sup>deceased from second primary melanoma, Breslow 1.7mm

COMMENT: The 95% 5 year survival for patients diagnosed with melanoma <1mm matches other series elsewhere.

Table 14: Five Year Follow-up of Patients diagnosed with malignant melanoma in each of the years 2000 to 2005 n1126

SCAN Region (excluding Dumfries and Galloway)

Year of Diagnosis: 2000, 2001, 2002, 2003, 2004 and 2005

Clark Level ≥ II or metastatic disease at presentation (no known primary)

Survival status of patients at 5 years post diagnosis

Breslow Depth		0 - 0.99	1 - 1.99	2 - 2.99	3 - 3.99	4 +	Breslow n.a	Mets
Alive and disease	M	157	56	16	8	16	3	0
free	F	306	112	27	14	21	4	1
Alive, previous	M	2	6	1	4	9	0	2
recurrence, now	F							
disease free	Г	5	7	3	3	7	0	0
Alive, ongoing	М	1	4	1	1	4	1	1
recurrence	F	2	4	6	2	4	1	2
Dead of melanoma	M	6	5	11	9	22	3	14
Dead of melanoma	F	2	8	4	3	40	3	5
Dood other course	M	17	10	1	1	5	1	0
Dead other causes	F	11	5	2	2	6	0	1
Dood souss n/s	M	3	6	3	5	9	1	1
Dead cause n/a	F	5	5	2	1	4	1	3
Lastita Esllavoro	M	16	3	1	1	1	2	0
Lost to Follow up	F	20	5	2	3	1	1	0
MALE	M	n202	n90	n34	n29	n66	n11	n18
Overall 5 year	М	26	21	15	15	36	5	15
survival: deceased	%	12.9	23.3	44.1	51.7	54.5	45.5	83.3
	М	*6	5	11	9	22	3	14
Dead of melanoma								
	%	3 (2.5%)	5.6	32.4	31.0	33.3	27.3	77.8
FEMALE	F	n351	n146	n46	n28	n83	n10	n12
Overall 5 year	F	18	18	8	6	50	4	9
survival: deceased	%	5.1	12.3	17.4	21.4	60.2	40.0	75.0
Dood of molonoma	F	2	8	4	3	40	3	5
Dead of melanoma	%	0.6	5.5	8.7	10.7	48.2	30.0	41.7

<sup>\*</sup>deceased from second primary melanoma, Breslow 1.7mm

### **MEDICAL ONCOLOGY**

During 2010 45 new patients and 213 follow-up patients were seen in the medical oncology melanoma clinic at the Edinburgh Cancer Centre.

The majority of patients seen have metastatic disease although high risk adjuvant patients are also seen if they wish to discuss adjuvant treatment options including the Avast-M clinical trial.

## Clinical Trials in Melanoma Adjuvant

#### **AVAST-M**

Adjuvant aVAStin Trial in high risk Melanoma; a randomised trial evaluating the VEGF inhibitor, Bevacizumab (Avastin), as adjuvant therapy following resection of AJCC stage IIB, IIC and III cutaneous melanoma.

A total of 37 patients have been considered and 11 have been recruited. In 2010 ten potential patients were seen and three recruited.

This study remains open to recruitment as of 12/9/11 with recruitment expected to be complete in 2012

## **Metastatic**

#### BRIM 3

A Randomized, open-label, controlled, multicenter, phase III Study in previously untreated patients with unresectable stage IIIC or stage IV melanoma. For patients with V600E BRAF mutation only, randomised to dacarbazine or RO5185426.

This study opened (and subsequently closed) to recruitment in 2010 10 patients have been considered and 3 patients have been recruited.

### **New Developments**

2010 has seen the developments of 2 novel therapies for patients with metastatic melanoma. Vemurafenib, a BRAF inhibitor, was associated with improved survival compared to DTIC chemo in patients with previously untreated metastatic melanoma. Ipilimumab was associated with improved survival in patients with previously treated metastatic melanoma compared to gp100 control and also with improved survival in patients with untreated metastatic melanoma in combination with DTIC compared to DTIC alone. It is expected that both of these drugs will obtain a European license during 2011 with application for consideration by the Scottish Medicines Consortium in late 2011-2012. Adjuvant studies of both of these drugs are under development.

Dr Ewan Brown Consultant Medical Oncologist October 2011

#### **ABBREVIATIONS**

AJCC American Joint Committee on Cancer
BGH Borders General Hospital, Melrose

CM Cutaneous Melanoma
CNS Cancer Nurse Specialist
D&G Dumfries and Galloway
FNA Fine Needle Aspirate
GP General Practitioner

ISD Information Services Division, National Services Scotland

LMM Lentigo Maligna Melanoma
 MDM Multidisciplinary Meeting
 MDT Multidisciplinary Team
 Mets Metastasis/Metastases

MF Murrayfield Hospital, Edinburgh (now SPIRE, Murrayfield)

**New RIE** Royal Infirmary of Edinburgh, Little France **QMH** Queen Margaret Hospital, Dunfermline

SCR Scottish Cancer Registry

**SIGN** Scottish Intercollegiate Guidelines Network

**SLNB** Sentinel Lymph Node Biopsy **SMG** Scottish Melanoma Group

**SSMM** Superficial Spreading Malignant Melanoma

St J St John's Hospital, Livingston VHK Victoria Hospital, Kirkcaldy

WGH Western General Hospital, Edinburgh

**Incidental finding**: patient may be attending or referred to hospital for investigation or treatment of a condition unrelated to their cancer and a melanoma is diagnosed

**Review patient**: patient may attend outpatient cancer clinic as they are being followed up for a previous melanoma

Triage: process of allocating treatment assessing urgency of medical needs