SCAN
South East Scotland Cancer Network

NHS SCOTLAND

Working regionally to improve cancer services

SOUTHEAST SCOTLAND CANCER NETWORK
PROSPECTIVE CANCER AUDIT

MELANOMA 2011
COMPARATIVE AUDIT REPORT

Report Number: SA Skin 03 13

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SCAN COMPARATIVE MELANOMA REPORT 2011

PATIENTS DIAGNOSED
1 JANUARY – 31 DECEMBER 2011

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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 2011 in the four health board regions comprising the South East Scotland Cancer Network (SCAN) i.e. 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 2011

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

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 2008 to 2010 (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 any Quality Assurance programmes provided by the National Services Scotland Information Services Division (ISD) but 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 08/10/2012
- 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 11/10/2012 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 22/02/2013.

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 risk of disclosure of personal information.

Action points for 2011: as part of clinical sign-off areas for improvement are highlighted in the Action Plan 2011 results. Information is also provided on progress with Action Plans for 2010.

ACTION PLAN MELANOMA 2011

Report Section	Possible area for improvement	Proposed action	Which clinical standard will be met?
Table 1	Review of case ascertainment in D&G	Analyse against tracking/audit data once 2010 cancer registration is complete	No clinical standard but high levels of case ascertainment provide confidence in reliability of results
Table 2	Continuing higher incidence of thicker melanomas in Fife	Request ISD to carry out work on age standardised incidence of thicker mm in Fife. M Mowbray has approached Fife Public Health requesting help in analysing data. Awaiting reply	No specific clinical standard but outcome for patients diagnosed with thicker lesions is poorer Brought forward from 2010
Table 6	% Fife patients diagnosed by GP	Fife audit have looked in more detail at these cases: which GP, type of biopsy, onward referral. M Mowbray to look at GP initial diagnosis on pathology report and thereafter direct education/advice appropriately; check appropriate pathway from Primary to Secondary care	Suspected melanoma should be managed in secondary care
Table 6a	% SCAN patients diagnosed by GP	SCAN to write letters to all GPs in SCAN raising awareness of referral of all suspicious pigmented lesions to secondary care	Suspected melanoma should be managed in secondary care
Table 8	Issue of pathology reports	Fife, and NHS Lothian UHD pathology to review turnaround times >28 days Very little delay in issue of reports in Fife Report on Lothian & Borders cases due February 2012 Clinicians to prompt Pathology for results for patient return appointment	There are no guidelines about optimum time period for issue of pathology reports 2011 data for Lothian & Borders shows improvement to 65% having results within 2 weeks Brought forward from 2010
Table 9	Reporting of mitotic rate Attendance by Fife Lab	Review % of D&G pathology reporting of mitotic rate Fife pathology remains understaffed. M	No clinical standard but mitotic rate is included in calculating eligibility for SLNB Brought forward from 2010

	Pathologist at fortnightly MDM	Mowbray to highlight again the request for attendance at MDM	
Table 13	Patients waiting >56 days from diagnosis to second stage treatment Fife time from diagnosis to second stage treatment Borders & Lothian diagnosis to second stage treatment	All health boards in SCAN to review waits >56 days to establish if there is a pattern to delays Review and compare with 2012 data following changed service provision in Fife from November 2011 2011 data showed Borders and Lothian 61.3% within 56 days. Review of Q1 and Q2 2012 data 62.8%	No specific standards but improvement of timescales through the care pathway is needed as highlighted in patient experience survey Brought forward from 2010

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 ongoing increases in CM incidence compared with other malignancies. SCAN data has again shown a rise in CM.

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 has, since its formation, collected information based on the SIGN Guideline (No. 72) and more recently from the British Association of Dermatologists' (BAD) guidelines and the 7th Edition of the American Joint Committee on Cancer (AJCC) published in 2010, together with the historical experience of the Scottish Melanoma Group.

As part of the ongoing national quality work programme, the National Cancer Quality Steering Group (NCQSG) is developing Melanoma Quality Performance Indicators (QPIs) which will be incorporated into future audit of the melanoma pathways.

Since 2010 the data contains information from Dumfries and Galloway. Estimated case ascertainment for D&G is much lower than for the other parts of SCAN. The reasons for this are unknown but as part of the action plan a review of case ascertainment is planned. The Borders also shows a lower than expected ascertainment rate but this is possibly due to random variation in a small population.

As last year we have continued to include comparator information in several tables to try to identify trends. The 5 year survival data (which does not include D&G) is in keeping with published data.

This year also notes the female to male ratio to be the same. In 2007 the female to male ratio was 1:1.7 and previously CM in Scotland showed a 2:1 ratio in favour of women. This is in contrast with other countries where males outnumber women. There are still concerns about persisting numbers of patients with thick, poor prognosis lesions (most notable in the Fife data).

There are concerns that, in Lothian, Borders and Fife, results show a relatively high percentage of lesions excised in primary care. It is intended to write to GPs to remind them of the SIGN guidance that highly suspicious lesions should be by fast-track referral to the appropriate specialty for removal in secondary care as data shows that CM excised by GPs is often incompletely removed.

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 terms of at risk population CM affects a significant number of patients of working age (see Table 3a); this emphasises the impact of melanoma 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 the same time. This is of benefit to patients by reducing hospital attendance and ensuring timely treatments.

The skin cancer Multidisciplinary Team Meeting (MDM) continues to expand. Noteworthy is that over 95% of patients with CM have their case discussed at a meeting. This means that SCAN is well-placed to meet the expected Quality Performance Indicator (QPI) requirement for MDM discussion of patients.

An audit has been performed on the reasons for delay between diagnosis and wide excision waiting more than 90 days. The most common reasons for delay were either patient-induced e.g. planned holiday, or clinical co-morbidities. It was accepted that this requires to be monitored regularly to flag up any particular problems in the pathways. An audit proposed for next year is to investigate the reasons for delays in pathology reporting of CM in Lothian.

The results presented have also been compared with data presented by NOSCAN and WOSCAN at the National Skin Cancer Meeting held in November this year. In future years we look forward also to measuring our results against national Quality Performance Indicators (QPIs), and are confident that service within the SCAN region will compare well with national requirements. It is however very encouraging that SCAN continues to provide high quality audit data which we can use to help us improve patient outcomes and quality.

Dr Danny Kemmett
Consultant Dermatologist
Chair, SCAN Skin Group
December 2012

DOCUMENT HISTORY

Version	Circulation	Date	Comments
Version 1	Draft circulated to SCAN Group	08/10/2012	Circulated to clinicians for "sense checking". Comments to be received by 11/10/2012
Version 2	Lead Clinicians and Audit Staff for sign-off meeting	11/10/2012	Suggested amendments and action points discussed
Version 3	SCAN Skin Group	16/11/2012	Signed off after discussion at SCAN Skin Group and subject to final minor amendments and addition of overall comment
Version 4	SCAN Skin Group Clinical Governance Groups, Lead Managers and Chairs in the four health boards and to the SCAN Regional Cancer Planning Group	22/02/2013 25/03/2013 21/03/2013	Signed off Circulated to Health Board Clinical Governance Circulated to RCPG
Version 4W	Lodged on SCAN website		Review for risk of disclosure of personal information

Table 1: Estimate of Case Ascertainment

Health Board	2011 SCAN Registrations	2008 - 2010 Average Number* of Cancer Registrations per year	Estimated Case Ascertainment (%)
Borders	20	26	76.9
D&G	23	36	63.9
Fife	56	61	91.8
Lothian	205	182	112.6
SCAN	304	305	99.7

D&G had one patient with two concurrent lesions; numbers and percentages throughout the report have been adjusted accordingly

Lothian n205 includes 8 patients diagnosed in private sector

High levels of case ascertainment provide confidence in reliability of results. However, allowance has to be made in reviewing the results where numbers are small and variation may be due to chance.

Table 2: Breslow Depth n304 lesions

Male	Borders		D&G		Fife		Lothian		SCAN		SCAN 2008-10	
mm	n11	%	n8	%	n33	%	n97	%	n149	%	n402	%
0-0.99	6	54.5	4	50.0	13	39.4	57	58.8	80	53.7	222	55.2
1-1.99	1	9.1	0	0.0	8	24.2	11	11.3	20	13.4	65	16.2
2-2.99	0	0.0	3	37.5	3	9.1	5	5.2	11	7.4	28	7
3-3.99	2	18.2	1	12.5	2	6.1	2	2.1	7	4.7	23	5.7
≥4	2	18.2	0	0.0	7	21.2	16	16.5	25	16.8	42	10.4
Mets	0	0.0	0	0.0	0	0.0	4	4.1	4	2.7	11	2.7
n/a	0	0.0	0	0.0	0	0.0	2	2.1	2	1.3	11	2.7
Total	11	100.0	8	100.0	33	100.0	97	100.0	149	100.0	402	100

Female	Borders		D&G		Fife		Lothian		SCAN		SCAN 2008-10	
mm	n9	%	n15	%	n23	%	n108	%	n155	%	n463	%
0-0.99	5	55.6	7	46.7	7	30.4	65	60.2	84	54.2	283	61.1
1-1.99	0	0.0	4	26.7	6	26.1	21	19.4	31	20.0	98	21.2
2-2.99	2	22.2	3	20.0	4	17.4	6	5.6	15	9.7	25	5.4
3-3.99	0	0.0	1	6.7	1	4.3	3	2.8	5	3.2	13	2.8
≥4	1	11.1	0	0.0	5	21.7	9	8.3	15	9.7	33	7.1
Mets	0	0.0	0	0.0	0	0.0	2	1.9	2	1.3	7	1.5
n/a	1	11.1	0	0.0	0	0.0	2	1.9	3	1.9	4	0.9
Total	9	100.0	15	100.0	23	100.0	108	100.0	155	100.0	463	100

Note: three year average figures exclude D&G data for years 2008 and 2009

Ratio of male to female (excluding D&G)

Year	Male	Female
2011	1	1.0
2010	1	1.1
2009	1	1.1
2008	1	1.4
2007	1	1.7

Table 2a: Melanoma in situ

In situ	Borders	D&G	Fife	Lothian	SCAN
Male	0	2	5	15	22
Female	4	5	17	12	38
Total	4	7	22	27	60

Table 3: Age at Presentation n304 lesions

Male	Borders		D&G		Fife		Lothian		SCAN		SCAN 08-10	
Age	n11	%	n8	%	n33	%	n97	%	n149	%	n402	%
0-19	0	0.0	0	0.0	1	3.0	0	0.0	1	0.7	3	0.7
20-34	0	0.0	0	0.0	1	3.0	6	6.2	7	4.7	16	4.0
35-44	0	0.0	1	12.5	3	9.1	13	13.4	17	11.4	39	9.7
45-54	1	9.1	0	0.0	5	15.2	11	11.3	17	11.4	57	14.2
55-64	1	9.1	1	12.5	7	21.2	21	21.6	30	20.1	87	21.6
65-74	5	45.5	2	25.0	7	21.2	19	19.6	33	22.1	96	23.9
75-84	4	36.4	4	50.0	7	21.2	20	20.6	35	23.5	104	25.9
85+	0	0.0	0	0.0	2	6.1	7	7.2	9	6.0		
Total	11	100.0	8	100.0	33	100.0	97	100.0	149	100.0	402	100.0

Female	Borders		D&G		Fife		Lothian		SCAN		SCAN 08-10	
Age	n9	%	n15	%	n23	%	n108	%	n155	%	n463	%
0-19	0	0.0	0	0.0	0	0.0	1	0.9	1	0.6	5	1.1
20-34	1	11.1	1	6.7	2	8.7	13	12.0	17	11.0	69	14.9
35-44	0	0.0	1	6.7	2	8.7	17	15.7	20	12.9	60	13.0
45-54	1	11.1	1	6.7	3	13.0	16	14.8	21	13.5	99	21.4
55-64	1	11.1	1	6.7	5	21.7	20	18.5	27	17.4	80	17.3
65-74	2	22.2	4	26.7	6	26.1	20	18.5	32	20.6	59	12.7
75-84	4	44.4	5	33.3	3	13.0	15	13.9	27	17.4	91	19.7
85+	0	0.0	2	13.3	2	8.7	6	5.6	10	6.5		
Total	9	100.0	15	100.0	23	100.0	108	100.0	155	100.0	463	100.0

Note: three year average figures exclude D&G data for years 2008 and 2009

Table 3a: Incidence in Working Age Population (Age 18 to 64 Male and Female) n303 patients

	Borders		D&G		Fife		Lothian		SCAN	
Number	n20	%	n22	%	n56	%	n205	%	n303	%
Incidence	5	25.0	6	27.3	28	50.0	117	57.1	156	51.5

Table 3b: Median age over 10 year period 2002 to 2011

Year	Male	Female	Area
2002	64	51	B F L
2003	61	55	B F L
2004	61	48	B F L
2005	61	57	B F L
2006	58	58	B F L
2007	64	55	B F L
2008	64	56	B F(6/12 only) L
2009	64	53	B L
2010	65	54	B L
2011	65	61	B L

Table 4: Anatomical Site n304 lesions

Site:	SCAN		2007-10		SCAN		2007-10	
	n149	%	n503	%	n155	%	n631	%
	Male		Male		Female		Female	
*Face	26	17.4	81	16.1	28	18.1	87	13.8
*Vermilion border of lip	0	0.0	0	0.0	0	0.0	1	0.2
*Scalp	11	7.4	22	4.4	1	0.6	4	0.6
*Neck	3	2.0	14	2.8	5	3.2	16	2.5
*Ears	2	1.3	14	2.8	3	1.9	1	0.2
Trunk anterior	6	4.0	7	1.4	3	1.9	6	1.0
Trunk anterior above waist	9	6.0	51	10.1	10	6.5	36	5.7
Trunk anterior below waist	3	2.0	3	0.6	2	1.3	9	1.4
Trunk posterior	6	4.0	22	4.4	4	2.6	10	1.6
Trunk posterior above waist	31	20.8	120	23.9	14	9.0	69	10.9
Trunk posterior below waist	8	5.4	11	2.2	0	0.0	8	1.3
Arm	2	1.3	3	0.6	1	0.6	5	0.8
Arm above elbow	6	4.0	20	4.0	13	8.4	78	12.4
Arm below elbow	12	8.1	40	8.0	13	8.4	50	7.9
Leg	1	0.7	0	0.0	1	0.6	7	1.1
Leg above knee	3	2.0	23	4.6	14	9.0	76	12.0
Leg below knee	6	4.0	34	6.8	26	16.8	122	19.3
Dorsum of hand	2	1.3	1	0.2	1	0.6	4	0.6
Dorsum of foot	3	2.0	3	0.6	4	2.6	8	1.3
Palm	0	0.0	0	0.0	0	0.0	0	0.0
Sole	1	0.7	7	1.4	7	4.5	10	1.6
Mucosal	0	0.0	7	1.4	2	1.3	9	1.4
Anal mucosal	1	0.7	0	0.0	0	0.0	0	0.0
Genital mucosal	0	0.0	0	0.0	0	0.0	0	0.0
Subungual hand	1	0.7	3	0.6	1	0.6	5	0.8
Subungual toe	1	0.7	4	0.8	0	0.0	0	0.0
Mets at presentation	4	2.7	13	2.6	2	1.3	8	1.3
Not recorded/not known	1	0.7	0	0.0	0	0.0	2	0.3
SCAN	149	100.0	503	100.0	155	100.0	631	100.0
**Total Head and Neck*	*42*	*28.2*	*131*	*26.0*	*37*	*23.9*	*109*	*17.3*

Table 5: Histogenetic Type of Melanoma n304 lesions

	SCAN n149	%	SCAN n155	%
	Male		Female	
Lentigo maligna melanoma(lmm)	26	17.4	23	14.8
Superficial spreading (ssmm)	80	53.7	88	56.8
Nodular	21	14.1	15	9.7
Acral	3	2.0	9	5.8
Mucosal	0	0.0	0	0.0
*Other	1	0.7	2	1.3
Unclassifiable	12	8.1	16	10.3
Desmoplastic	1	0.7	0	0.0
Spitzoid	1	0.7	0	0.0
Secondary	4	2.7	2	1.3
SCAN	149	100.0	155	100.0

*Other: malignant blue naevus; n2 naevoid melanoma

Table 6: Mode of Referral n303 patients

	Borders		D&G		Fife		Lothian		SCAN	
	n20	%	n22	%	n56	%	n205	%	n303	%
GP referral	15	75.0	15	68.2	34	60.7	154	75.1	218	71.9
Self referral to A&E	0	0.0	0	0.0	1	1.8	1	0.5	2	0.7
Diagnosed by GP	4	20.0	3	13.6	10	17.9	9	4.4	26	8.6
Incidental	1	5.0	2	9.1	4	7.1	23	11.2	30	9.9
Review	0	0.0	2	9.1	4	7.1	6	2.9	12	4.0
*Not known	0	0.0	0	0.0	3	5.4	12	5.9	15	5.0
Total	20	100.0	22	100.0	56	100.0	205	100.0	303	100.0

*Not known: Lothian: one direct from Fife Consultant; one direct from Borders Consultant; one from Armed Forces; one n/a on TRAK; n8 privately diagnosed patients

Table 6a: Diagnosed by GP

	Borders		D&G		Fife		Lothian		SCAN	
2011	4	20.0	3	13.6	10	17.9	9	4.4	26	8.6
2010	3	10.7	9	22.0	2	4.1	6	3.3	20	6.6
2009	1	3.8	n/a	n/a	3	5.9	13	6.3	17	6.0
2008	12	52.2	n/a	n/a	4	5.8	17	9.0	33	11.7
2007	11	39.3	n/a	n/a	6	11.3	17	9	34	12.6

*Not known: Lothian: one direct from Fife Consultant; one direct from Borders Consultant; one from Armed Forces; one n/a on TRAK; n8 privately diagnosed patients

Table 7: Method of diagnosis n304 lesions

	Borders		D&G		Fife		Lothian		SCAN	
	n20	%	n23	%	n56	%	n205	%	n304	%
*Sample biopsy	5	25.0	8	34.8	12	21.4	58	28.3	83	27.3
Excision/Amputation	14	70.0	15	65.2	44	78.6	138	67.3	211	69.4
FNA	0	0.0	0	0.0	0	0.0	1	0.5	1	0.3
Other	1	5.0	0	0.0	0	0.0	8	3.9	9	3.0
Total	20	100.0	23	100.0	56	100.0	205	100.0	304	100.0

* incision, shave, curettage

Other methods of diagnosis in this cohort were: n2 biopsies nasal mass, liver biopsy, biopsy of thigh mass, CT guided spine biopsy, partial parotidectomy, excision anal polyp, biopsy of soft tissue lesion and lung brushings.

Sampling of suspect lesions is used when there is diagnostic doubt or for planning/staging purposes in larger lesions or those on cosmetically challenging areas.

Incomplete removal may compromise subsequent measurements of tumour thickness. Suspected melanomas or suspicious melanocytic lesions should not be treated with curettage and cautery

Table 7a: *Sample biopsy

	Borders		D&G		Fife		Lothian		SCAN	
2011	5	25.0	8	34.8	12	21.4	58	28.3	83	27.3
2010	Breakdown of individual Health Board data not available								60	20.0
(excl D&G) 2009									55	19.4
(excl D&G) 2008									60	21.3

Table 8: Pathology: Time from Diagnosis to issue of Pathology Report n296 lesions
Exclusions: n8 privately diagnosed: unable to calculate (missing dates)

Time interval in days	Borders		D&G		Fife		Lothian		SCAN	
	n20	%	n23	%	n56	%	n197	%	n296	%
0-14	11	55.0	20	87.0	43	76.8	131	66.5	205	69.3
15-28	8	40.0	3	13.0	9	16.1	59	29.9	79	26.7
>28	1	5.0	0	0.0	4	7.1	7	3.6	12	4.1
Median	13		5		8		13			
Range	3 - 38		2 - 20		1 - 58		1 - 43		1 - 58	

Borders and Lothian histology: NHS Lothian, University Hospitals Division Pathology Department, Edinburgh
Fife histology: Fife Area Laboratory, Kirkcaldy
D&G histology: Pathology Department, Dumfries & Galloway Royal Infirmary, Dumfries
Spire Pathology Services, Spire Murrayfield Hospital, Edinburgh

Table 8a: Diagnosis to issue of Pathology Report: Median wait

Time interval in days	Borders and Lothian	D&G	Fife
2011	13	5	8
2010	14	9	7
2009	15	n/a	6
2008	15	n/a	7

Table 9: Pathology: Mitotic Rate n304 lesions

Mitotic rate per mm²	Borders		D&G		Fife		Lothian		SCAN	
	n20	%	n23	%	n56	%	n205	%	n304	%
*zero	9	45.0	5	21.7	13	23.2	105	51.2	132	43.4
≥1mm²	10	50.0	12	52.2	43	76.8	89	43.4	154	50.7
Nr/na	1	5.0	6	26.1	0	0.0	11	5.4	18	5.9
Total	20	100.0	23	100.0	56	100.0	205	100.0	304	100.0

Nr/Na: 6 mets at presentation; one pT4b

*zero includes those reported as <1mm²

Table 10: Pathology: Ulceration n304 lesions

Ulceration reported	Borders		D&G		Fife		Lothian		SCAN	
	n20	%	n23	%	n56	%	n205	%	n304	%
Ulceration	6	30.0	3	13.0	12	21.4	29	14.1	50	16.4
No ulceration	13	65.0	16	69.6	23	41.1	143	69.8	195	64.1
Incipient	0	0.0	0	0.0	21	37.5	11	5.4	32	10.5
Nr/na	1	5.0	4	17.4	0	0.0	22	10.7	27	8.9
Total	20	100.0	23	100.0	56	100.0	205	100.0	304	100.0

Incipient ulceration is currently included in the standard minimum dataset for melanoma reporting and has been recorded historically by the Scottish Melanoma Group as Ulceration Present: Yes, No or Incipient

Melanoma National Data Definitions revised February 2012 (for implementation January 2013) are as follows:
Not identified (includes incipient ulceration); present; indeterminate; not applicable

"Notes for Users: Ulceration is an integral component of AJCC staging system and independent predictor of outcome in patients with clinically localised primary cutaneous melanoma."

Table 11: Pathology: Pathological T stage n304 lesions

T stage reported	Borders		D&G		Fife		Lothian		SCAN	
	n20	%	n23	%	n56	%	n205	%	n304	%
Reported	12	60.0	18	78.3	26	46.4	151	73.7	203	66.8
Not reported	8	40.0	4	17.4	30	53.6	48	23.4	56	18.4
N/ applicable	0	0.0	1	4.3	0	0.0	6	2.9	45	14.8
Total	20	100.0	23	100.0	56	100.0	205	100.0	304	100.0

Table 12: Specialty of Clinician diagnosing melanoma m304

	Borders		D&G		Fife		Lothian		SCAN	
	n20	%	n23	%	n56	%	n205	%	n304	%
Dermatology	15	75.0	15	65.2	38	67.9	169	82.4	237	78.0
Plastic Surgery	0	0.0	0	0.0	2	3.6	18	8.8	20	6.6
General Surgery	0	0.0	2	8.7	2	3.6	0	0.0	4	1.3
GP	4	20.0	3	13.0	10	17.9	9	4.4	26	8.6
Other	1	5.0	3	13.0	4	7.1	9	4.4	17	5.6
Total	20	100.0	23	100.0	56	100.0	205	100.0	304	100.0

Other specialties:
Borders: Ear Nose & Throat (ENT)
D&G: Oral Maxilofacial
Fife: ENT and Oral Surgery
Lothian: Orthopaedic, General, ENT and Colorectal Surgery; Clinical Oncology

Table 13: wait in days for second stage of treatment following diagnosis by excision or biopsy

n 280 = All melanoma patients having second treatment

Exclusions: Lothian: n15 no second treatment; n6 unable to calculate (missing dates); D&G: n1 excision only (clear margins); n1 wide local excision only and n1 patient deceased

Time interval in days	Borders		D&G		Fife		Lothian		SCAN	
	n20	%	n20	%	n56	%	n184	%	n280	%
≤28	0	0.0	0	0.0	6	10.7	37	20.1	43	15.4
29-56	9	45.0	11	55.0	20	35.7	79	42.9	119	42.5
>56	11	55.0	9	45.0	30	53.6	68	37.0	118	42.1
Median	65		48		58		48			
Range	43-136		29 - 89		21-124		14-163		14 - 163	

Reasons for no second treatment: wide local excision (wle) only, adequate excision margins, co-morbidities, metastatic disease, patient declined, patient deceased prior to wle

Number waiting ≥90 days:

Time interval in days	Borders		D&G		Fife		Lothian		SCAN	
	n20	%	n20	%	n56	%	n184	%	n280	%
≥90	3	15.0	0	0.0	6	10.7	7	3.8	16	5.7

Table 13a: Median wait in days for second stage of treatment following diagnosis

Median wait in days	Borders	D&G	Fife	Lothian
2011	65	48	58	48
2010	58	53	57	51
2009	55	n/a	67	56
2008	48	n/a	63	55

Table 14: Sentinel lymph node biopsy (SLNB) n304 lesions

	Borders		D&G		Fife		Lothian		SCAN	
	n20	%	n23	%	n56	%	n205	%	n304	%
Patient Eligible for SLNB	10	50.0	15	65.2	44	78.6	95	46.3	164	53.9
Patient having SLNB	5	25.0	5	21.7	32	57.1	50	24.4	92	30.3
Patient with positive SLNB	1	20.0	0	0.0	6	18.8	8	16.0	15	16.3

Protocol of eligibility for consideration of SLNB: Breslow depth ≥1.0mm or Breslow depth <1.0mm with mitotic rate ≥1mm²

The role of SLNB is unclear. There is no Randomised Clinical Trial evidence to show that SLNB has any overall survival advantage. SLNB aids staging and provides some diagnostic information. SLNB is discussed with eligible patients.

Patient having SLNB	SCAN	Number Positive	% Positive	% eligible for SLNB
2011	92	15	16.3	53.9
2010	90	15	16.7	46.9
2009	91	15	16.5	48.8
2008	92	10	10.9	32.7
2007	77	21	27.3	50.2

Note: Years 2007, 2008 and 2009 exclude D&G patient data

Table 15: Lymph node dissection n304 lesions

	Borders		D&G		Fife		Lothian		SCAN	
	n20	%	n23	%	n56	%	n205	%	n304	%
Lymph node dissection	1	5.0	0	0.0	6	10.7	13	6.3	20	6.6
Positive lymph nodes	1		0		0		7		8	

Current practice is for patients with a positive sentinel node to proceed to radical node dissection. Some patients may not have had previous SLNB. *Treatment of clinically apparent regional lymph nodes is dependent on positive FNA or frozen paraffin sections of involved lymph node.*

Lymph node dissection	SCAN	Number Positive
2011	20	8
2010	17	4
2009	21	10
2008	15	10
2007	25	8

Note: Years 2007, 2008 and 2009 exclude D&G patient data

Table 16: Multidisciplinary Meeting (MDM) Skin n304 lesions

Patient discussed at MDM	Borders		D&G		Fife		Lothian		SCAN	
	n20	%	n23	%	n56	%	n205	%	n304	%
*Discussed	20	100.0	22	95.7	56	100.0	198	96.6	296	97.4
#Not discussed	0	0.0	1	4.3	0	0.0	7	3.4	8	2.6
Total	20	100.0	23	100.0	56	100.0	205	100.0	304	100.0

*One Borders patient discussed at Head & Neck MDM; one Lothian patient discussed at Gynae MDM

#Lothian: n2 NHS patients; n5 patients treated wholly or partially in Lothian private sector
One D&G patient with two concurrent primary melanomas

Patient discussed at MDM %	Borders	D&G	Fife	Lothian	SCAN
2011	100.0	95.7	100.0	96.6	97.4
2010	100.0	61.0	100.0	92.3	90.0
2009	100.0	n/a	100.0	96.6	97.5
2008	100.0	n/a	100.0	98.4	98.9

Table17: Contact with Cancer Nurse Specialist (CNS) for skin n304 lesions

Patient contact with CNS	Borders		D&G		Fife		Lothian		SCAN	
	n20	%	n23	%	n56	%	n205	%	n304	%
Contact	13	65.0	6	26.1	49	87.5	170	82.9	238	78.3
No contact	7	35.0	17	73.9	7	12.5	35	17.1	66	21.7
Total	20	100.0	23	100.0	56	100.0	205	100.0	304	100.0

Lothian: n4 patients diagnosed by other specialty; one patient deceased
D&G: one patient with 2 concurrent lesions

Patient contact with CNS %	Borders	D&G	Fife	Lothian	SCAN
2011	65.0	26.1	87.5	82.9	78.8
2010	82.1	n/a	64.6	90.6	86.9
2009	88.5	n/a	72.5	89.4	86.2
2008	95.7	n/a	68.1	88.9	84.3

D&G: D&G do not have a specific CNS for skin. Dermatology nurse specialists see patients alongside the medical staff at clinics. Patients in this cohort were not seen by the nurses at a nurse led clinic or on a one to one basis. D&G patients referred to NHS Lothian for their further treatment are offered contact with the CNS.

Fife: In addition to the regional CNS, Fife patients also have the opportunity to meet with specialist dermatology skin cancer link nurses based in Fife. These nurses link in with the regional CNS if there are any issues with which she may be able to help. 94.6% of Fife patients were seen by a skin cancer link nurse, regional CNS or both.

Table 18: Five year Follow-up of Patients diagnosed in 2006 in Borders and Lothian
Clark Level ≥II or metastatic disease at presentation n214

Breslow Depth		0-0.99	1-1.99	2-2.99	3-3.99	4+	n/a	Mets
Alive, disease free	M	33	19	2	1	1	1	0
	F	61	19	4	2	3	2	0
Alive, previous recurrence, now disease free	M	3	0	0	0	2	0	0
	F	1	3	2	0	0	0	2
Alive, ongoing disease	M	0	1	0	0	0	0	0
	F	0	1	0	1	0	0	0
Dead of melanoma	M	3	0	3	1	3	0	1
	F	2	1	4	3	3	1	2
Dead of other causes	M	2	0	1	0	4	0	0
	F	3	0	1	1	1	0	1
Dead cause n/a	M	2	0	0	0	0	0	0
	F	0	0	0	0	0	0	0
Lost to follow-up	M	1	0	1	0	0	0	0
	F	3	1	1	0	0	0	0

One additional male patient Breslow 0.78mm, alive with melanoma lung metastasis or primary lung cancer

Male		n44	n20	n7	n2	n10	n1	n1
Overall 5 year survival: deceased all causes		7	0	4	1	7	0	1
	%	15.9	0.0	57.1	50.0	70.0	0.0	100.0
Dead of melanoma		3	0	3	1	3	0	1
	%	6.8	0.0	42.9	50.0	30.0	0.0	0.0

Female		n70	n25	n12	n7	n7	n3	n5
Overall 5 year survival: deceased all causes		5	1	5	4	4	1	3
	%	7.1	4.0	41.7	57.1	57.1	33.3	60.0
Dead of melanoma		2	1	4	3	3	1	2
	%	2.9	4.0	33.3	42.9	42.9	33.3	40.0

Extract from SCAN Management Guidelines September 2012: *Follow-up*
There is no strong evidence to determine the exact pattern of follow-up. The following suggestion should be tailored to the individual patient:

Breslow <1mm, no ulceration, no mitoses: 3 - 6/12 months up to one year then discharge
Breslow <1mm, ulceration or ≥1 mitoses: 3/12 for three years, then 6/12 to 5 years
Breslow >1mm: 3/12 for three years, then 6/12 to five years
Stage IIIB, IIIC, resected stage IV: 3/12 for three years then 6/12 to five years, then 12/12 to 10 years
Stage IV unresectable: seen according to need

ISD report on 5 year survival analysis of patients diagnosed in 2005 (previously circulated by SCAN) to be appended

Oncology

During 2011 40 new patients were seen in the medical oncology clinic and 35 in the clinical oncology clinic as well as approximately 250 follow-up patients

The majority of patients seen in the medical oncology clinic had metastatic disease although high risk adjuvant patients were also seen if they wished to discuss adjuvant treatment options including the Avast-M clinical trial.

Patients in the clinical oncology clinic were primarily seen to discuss radiotherapy either in the adjuvant or palliative setting.

Clinical Trials in Melanoma

Adjuvant

1) **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.

This study completed recruitment in March 2012. Eight patients remain on follow up.

Metastatic

1) **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.
Ten patients have been considered and three patients have been recruited.
One patient remains on follow up

A further five patients were recruited to the Vemurafenib expanded access programme (run through the Beatson) during 2011.

New Developments

2011 has seen the ongoing development of several 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, a CTLA4 antibody, 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.

Both of these drugs obtained a European licence during 2011 but following review by the Scottish Medicines Consortium are not recommended for use in the NHS in Scotland.

Future Studies 2012 - 2013

BRIM 8: Phase III, Randomized, Double-Blind, Placebo-Controlled Study of Vemurafenib (RO5185426) Adjuvant Therapy in Patients with Surgically-Resected Cutaneous BRAF Mutant Melanoma at High Risk for Recurrence

Due to open Quarter 4 2012

PACMEL: A randomised phase 2 study of Paclitaxel with or without GSK1120212 (MEK inhibitor) in advanced wild type BRAF melanoma

Due to open Quarter 1 2013

GO28141: A Phase III, double blind, placebo-controlled study of Vemurafenib + placebo versus Vemurafenib + GDC 0973 (MEK inhibitor) in advanced V600E mutant melanoma

Due to open Quarter 1 2013

Ewan Brown
Edinburgh Cancer Centre
October 2012

ABBREVIATIONS

ACaDME	**A**cute **C**ancer **D**eaths and **M**ental Health: ISD data mart contains linked inpatient and daycase, mental health, cancer registration and death (GRO) records. It is updated on a monthly basis.
AJCC	American Joint Committee on Cancer
BGH	Borders General Hospital, Melrose
Bx	Biopsy
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
QA	Quality Assurance
SCAN	Southeast Scotland Cancer Network
SCR	Scottish Cancer Registry
SIGN	Scottish Intercollegiate Guidelines Network
SLNB	Sentinel Lymph Node Biopsy
SMG	Scottish Melanoma Group
SSMM	Superficial Spreading Malignant Melanoma
WLE	Wide local excision

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