SCAN
South East Scotland Cancer Network

NHS SCOTLAND

Working regionally to improve cancer services

SOUTH EAST SCOTLAND CANCER NETWORK (SCAN)
PROSPECTIVE CANCER AUDIT

MELANOMA 2014 - 2015
Comparative Report

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SCAN COMPARATIVE MELANOMA REPORT 2014-15

PATIENTS DIAGNOSED
1 July 2014 – 31 June 2015

Contents

INTRODUCTION AND METHODS

This report presents analysis of data collected on NHS 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 July 2014 and 31 June 2015 in the four health board regions comprising the South East Scotland Cancer Network (SCAN) i.e. Borders, Dumfries and Galloway, Fife and Lothian.

Dataset and Definitions

The QPIs have been developed collaboratively with the three Regional Cancer Networks, Information Services Division (ISD), and Healthcare Improvement Scotland. QPIs will be kept under regular review and be responsive to changes in clinical practice and emerging evidence.

The overarching aim of the cancer quality work programme is to ensure that activity at NHS board level is focussed on areas most important in terms of improving survival and patient experience whilst reducing variance and ensuring safe, effective and person-centred cancer care.

Following a period of development, public engagement and finalisation, each set of QPIs is published by Healthcare Improvement Scotland[1].

The QPI dataset for Melanoma was implemented from 01/07/2014, and this is the first publication of QPI results for Melanoma within SCAN.

The standard QPI format is shown below:

QPI Title:	Short title of Quality Performance Indicator (for use in reports etc.)	
Description:	Full and clear description of the Quality Performance Indicator.	
Rationale and Evidence:	Description of the evidence base and rationale which underpins this indicator.	
Specifications:	Numerator:	Of all the patients included in the denominator those who meet the criteria set out in the indicator.
	Denominator:	All patients to be included in the measurement of this indicator.
	Exclusions:	Patients who should be excluded from measurement of this indicator.
	Not recorded for numerator:	Include in the denominator for measurement against the target. Present as not recorded only if the patient cannot otherwise be identified as having met/not met the target.
	Not recorded for exclusion:	Include in the denominator for measurement against the target unless there is other definitive evidence that the record should be excluded. Present as not recorded only where the record cannot otherwise be definitively identified as an inclusion/exclusion for this standard.
	Not recorded for denominator:	Exclude from the denominator for measurement against the target. Present as not recorded only where the patient cannot otherwise be definitively identified as an inclusion/exclusion for this standard.
Target:	Statement of the level of performance to be achieved.	

[1] QPI documents are available at www.healthcareimprovementscotland.org

Accompanying datasets and measurability criteria for QPIs are published on the ISD website (www.isdscotland.org).

Further information on the dataset and definitions can be obtained from Jon Pullman, SCAN Cancer Audit Facilitator, Dept of Dermatology, Lauriston Building, Edinburgh EH3 9HA. Jonathan.Pullman@luht.scot.nhs.uk

Patients included in the Report
All patients diagnosed with Primary Invasive Melanoma or secondary melanoma (no known primary) 1 July 2014 – 30 June 2015

Network/Health Board/Hospital	Lead Clinician	Audit Support
SCAN, NHS Lothian and Borders	Dr V Doherty	Jon Pullman
NHS D&G	Dr J Norris/Dr Lindsey Yeo	Laura Fair
NHS Fife	Dr M Mowbray	Jackie Stevenson
NHS Lothian – Department of Plastic Surgery	Mr M Butterworth	

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. 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 report was reviewed by the lead clinicians 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 will be considered by the Lead Clinicians at a SCAN group meeting on 22/10/2015 and comments added to the report
- The Lead Clinicians agreed to circulate the report for final sign off by the SCAN Skin Group on 13/11/2015.

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.

As part of clinical sign-off, areas for improvement are highlighted in the Action Plan results.

2014-15 Action Points

QPI	Proposed action	Person Responsible	Date for update
General	Continue to produce a comparative annual melanoma report that includes demographic and relevant clinical data in addition to QPI analysis number 'unclassifiable' lesions in D and G - 70% compared with 5% in the other 2 sites	JP/JS/LF	10/06/16
QPI 1	A list of relevant clinicians to be provided to audit facilitator by the local clinical lead and updated annually	VRD/MM/LY	10/06/16
QPI 2	Write to SCAN pathologists to inform them of the results of the QPIs and remind them of the dataset requirement for QPI 2	MM	10/06/16
QPI 4	Local clinical leads to remind colleague that QPI 4 requires recording the date of lymph node examination. This should be documented in the notes and clinic letter. Maximum effort should be made to inform/update MDM representatives of the date and outcome of lymph node examination.	VRD/MM/LY	10/06/16
QPI 5	Write to SCAN and Tayside (who perform SLNBs for Fife) to inform them of the reasons for failure of QPI 5	MM	10/06/16
QPI 7	Local clinical leads to arrange discussion of delays to definitive treatment with the local MDM team. Options to minimise delay to be determined	VRD/MM/LY	10/06/16
QPI 8-10	All regions to consider collecting QPI 8-10 data for ALL melanoma patients who are discussed at MDM with unresectable Stage III or IV disease.	MM	10/06/16
General	MM to write to all SCAN pathologists reminding them of the requirement of the QPIs to report melanomas using the RCP dataset. Additional comment to D&G pathology team requesting that they specify histogenetic type.	MM	10/06/16

Cancer Quality Program

Table/QPI	Proposed action	Person responsible	Date
QPI 1	Change wording such that “surgeons working under the supervision of a member of the MDT” can be included as part of numerator.	QPI review team	2016
QPI 2	Remove requirement for explicit inclusion of SNOMED in pathology report	QPI review team	2016
QPI 2	Identify 5 key pathology data items for use in evaluating QPI	QPI review team	2016
QPI 5	Remove requirement for explicit inclusion of SNOMED in pathology report	QPI review team	2016
QPI 6&7	Expand criteria for denominator to include patients diagnosed both by excisional AND partial biopsy	QPI review team	2016

Comment by SCAN Skin Group Chair

Once again I would like to thank Jon Pullman, SCAN skin cancer audit facilitator for his dedication and hard work for ensuring this comparative report is detailed, accurate and clinically useful. I also thank Jackie Stevenson (NHS Fife) and Laura Fair (NHS Dumfries and Galloway). All audit facilitators have worked with the relevant clinical leads to produce the SCAN melanoma comparative audit report. There are a number of changes to this report in comparison with previous years. Government driven quality performance indicator (QPI) data collection for melanoma commenced in July 2014, the reporting year runs from 01/07/2014 to 30/06/2015. In view of these changes the annual report includes data from this collection period. The report has been written such that the QPIs are at the beginning of the report, additional data that is clinically useful is included at the end of the report.

The QPIs only provide information for patients who present with a primary melanoma within the reporting time period. For QPIs 6 and 7 data is only included if the melanoma was diagnosed by ‘excisional biopsy’, those diagnosed by partial biopsy are not included. QPIs 8-10 refer to imaging and management of patients with advanced melanoma. For a patient to be included in these QPIs they require to have presented with a primary melanoma which then progresses within the reporting time period. Such rapid progression is rare therefore the numbers included are small and relatively meaningless. As the QPIs are only providing limited information on a subset of melanoma patients all members of the SCAN skin cancer group have agreed that the additional information included in the SCAN annual melanoma report is invaluable.

338 new melanoma patients were registered in SCAN during the reporting time period, this is a similar figure to the 2011-2013 average of 321. The case ascertainment was 105.3%. Of the 338 patients the ratio of Male:Female is 1:1. The median age of presentation with a melanoma is rising, male 71 years, female 66 years. We continue to observe that women tend to be younger than men when they present with a melanoma. The incidence in the working age population is 42%.

There are 11 melanoma QPIs. There have been some 'teething problems' with QPI data collection, these were discussed at a national baseline review on 11/12/2015. I thank Jon Pullman again for co-ordinating data collection from SCAN, NOSCAN and WOSCAN. Conclusions from this review process will be presented in this document. The next review of the QPIs will be following a further 2 years of data collection. I welcome the document produced by SCAN which details the SCAN audit reporting governance framework (Appendix 1).

QPI 1 requires that a patient with cutaneous melanoma should have their diagnostic excision biopsy carried out by a skin cancer clinician. A skin cancer clinician is a dermatologist, plastic surgeon, or a locally designated clinician who attends the MDT. Target compliance 90%, SCAN 96%, Scotland 92%. All regions have included surgeons who are 'under the supervision' of a member of the melanoma MDT as meeting the QPI criteria. Such surgeons may include dermatology nurses or hospital practitioners who are surgically trained. Following baseline review it was agreed that the wording of the QPI document will be changed to ensure inclusion of such surgeons meets QPI criteria.

QPI 2 and 5 are related to pathology reporting. There was good representation by pathologists from WOSCAN and Lothian at the baseline review meeting. Unfortunately no pathologists from Fife or Dumfries and Galloway were present.

QPI 2 requires that surgical pathology reports for melanomas undergoing diagnostic excision biopsy contain a full set of data items, as defined by the current Royal College of Pathologists (RCP) dataset. Target compliance 90%, SCAN 14%, Scotland 54%. The main issue with this QPI is that it requires inclusion of a SNOMED code on the pathology report. Pathologists argue that all specimens that have been reported will have been issued with a SNOMED code but it is not good practice to include this code within the printed report. At baseline review it was agreed that the requirement of a SNOMED code will be removed from the report.

Even if the requirement for a SNOMED code is overlooked the majority of regions fail this QPI. The main data item, other than SNOMED code, not included in the dataset in SCAN was pathological T stage. Most clinicians and pathologists argue that the list of data items is too long and not relevant from a clinical, management or prognostic point of view. It was suggested that the requirement of approximately 5 key data items would be sufficient and more practical for data collection. Unfortunately at the baseline review meeting an agreement could not be reached. A decision was made to review the discussions in 2 years time.

QPI 5 has similar problems to QPI 2. QPI 5 details that SLNB reports for melanoma patients undergoing sentinel lymph node biopsy (SLNB) should contain a full set of data items, as defined by the current RCP dataset. Target compliance 90%, SCAN 4%, Scotland 23%. The reason for 4% compliance is the absence of a SNOMED code on the pathology report. As with QPI 2, the requirement for this will be removed. If the requirement for SNOMED code is overlooked the compliance improves but does not reach the 90% target.

QPI 3 details that patients with cutaneous melanoma should be discussed by a multidisciplinary team prior to definitive treatment. Target compliance 95%, SCAN 93%, Scotland 87%. Of the regions included in SCAN, Fife and D & G reached below 100% for this QPI. All melanomas diagnosed in Fife were discussed at the MDM but the QPI states specifically that the date of MDM discussion should be after diagnostic excision and before definitive treatment (wide local excision WLE, SLNB). In 2 Fife cases the MDM discussion was had after the definitive treatment, this was for sound clinical reasons. This situation was mirrored in other regions of Scotland. At baseline review discussions were had suggesting

QPI criteria could be changed to make allowances for such cases. Finally, it was agreed to keep the QPI as it is so as we can highlight those having definitive treatment before MDM discussion and therefore ensure management is appropriate.

QPI 4 requires that patients with primary cutaneous melanoma undergo clinical examination of their draining lymph node basins. The date of this examination must be documented in the notes or at MDM. Target compliance 95%, SCAN 45%, Scotland 60%. Despite changing the MDM form so as this data is specifically requested and recorded the majority of regions failed this QPI. One issue is that at the time of MDM registration the patient has not always been seen for discussion of their diagnosis or had their lymph nodes examined. This data has to be provided retrospectively. In most cases this examination is being performed, the main area of concern lies in the absence of good documentation in notes and in particular clinic letters. Much discussion was had at the baseline review as to whether the examination date could be substituted by 'yes/no'. The group agreed that the date was an important factor therefore the QPI/measurability document should remain unchanged.

QPI 6 states that a patient with primary cutaneous melanoma should undergo a WLE. Target compliance 90%, SCAN 92%, Scotland 92%. Unfortunately currently this QPI only includes data for those melanomas diagnosed by excisional biopsy. If diagnosed by sample biopsy (incision, punch, curette) the data is not included. This applies also to QPI 7.

QPI 7 details that a patient with primary cutaneous melanoma should have their WLE within 84 days of their diagnostic surgical biopsy. Target compliance 95%, SCAN 62.5%, Scotland 65%.The absence of data for those diagnosed by partial biopsy means that information on a relatively large cohort of patients is missing. For example, in D & G 41% of patients had their diagnosis made by sample biopsy and therefore were not included in the melanoma QPI report. This is of particular relevance when considering QPI 7 as diagnosis by sample biopsy often introduces an increased risk of delay into the patient management pathway. It was agreed at baseline review that in future, data for those diagnosed by 'sample biopsy' will also be included in calculating QPIs 6 & 7.

Page 34 & 35, table 24: Details all patients by region(43, 18%), irrespective of type of diagnostic biopsy, who waited >84 days for definitive treatment. The time points in this pathway are detailed. It was agreed at the SCAN skin cancer meeting that local clinical leads will arrange discussion of this information will all those involved in the patient pathway so as to determine options for minimising these delays.

QPI 8 requires that BRAF status is performed in all patients with unresectable stage III or IV disease. QPI 9 requires that patients with stage III and IV disease should be evaluated with appropriate imaging. QPI 10 states that these patients should receive systemic anti cancer therapy.

QPI 8 target compliance 75%, SCAN 83%, Scotland 89%.
QPI 9 target compliance 95%, SCAN 100%, Scotland 92%.
QPI 10 target compliance 60%, SCAN 50%, Scotland 53%.

In QPI 10 the 1 Fife patient died before treatment.

As mentioned earlier, the QPIs do not include data for patients presenting with metastatic disease or recurrence. Although the rationale for choosing QPIs 9 – 11 is sensible, the lack of data for patients with disease progression makes the numbers relatively small and meaningless. It would be more useful clinically to have this data for all stage III and IV patients discussed at MDM over the reporting time period. At the SCAN report review and the QPI baseline review this was recommended.

QPI 11 requires that patients with primary cutaneous melanoma, who undergo groin block dissection, should be assessed for lymphoedema and have access to a lymphoedema service. QPI 11 target compliance 40%, SCAN 100%, Scotland 29%. Once again this QPI is relatively meaningless. Very few patients (SCAN n=2) will present with primary melanoma, have a groin clearance, and develop lymphoedema within the reporting time period. In Fife there were no patients. At QPI baseline review it was agreed that the appropriate patients are not being captured. As the intent of the QPIs is only to provide information for those presenting with primary melanoma, it is difficult to make improvements to this QPI. It was agreed to leave this QPI unchanged until formal review when more results will be available.

In addition to the QPIs the comparative report also includes, 1) data which is useful for melanoma patient management/service provision. 2) data with regard to government cancer waiting time targets.

The commonest anatomical sites for melanoma continue to be trunk ant/post and head and neck for men. For women the upper arm is a new commonest site with head and neck and trunk posterior as in previous years. This is useful information to have when educating GPs and melanoma patients about skin examination.

Melanomas are classified into histogenetic type, the commonest types are superficial spreading melanoma and lentigo maligna. It is observed that in D & G an unusually high proportion of melanomas 70% were described as unclassifiable. It has been suggested that this may be explained by the shortfall of specialist dermatopathologists in D & G. An option would be to refer such cases to Lothian for a second opinion but this may introduce significant delay.

Breslow depth remains the most important prognostic indicator for melanoma. The distribution in proportion of thin, intermediate and thick melanomas has not changed greatly in 2014-2015 compared with 2011-2013. Previously we have observed a higher proportion of thick, poor prognosis, melanomas in Fife than in other regions of Scotland. The Fife research and development department are currently analysing this trend for SCAN data from 1979 – 2012. ISD are currently analysing this trend for National data from 2005 – 2012. In this 2014/15 there is a reduction in the percentage of thick melanomas in Fife men but the percentage is relatively high in men from Borders and D & G. Unfortunately the percentage of thick melanomas in Fife and Borders women remains high.

SLNB is offered to all patients with a Breslow ≥ 1 and also those with a mitotic rate ≥ 1 with a Breslow of any thickness. Research and debate are tending towards suggesting that SLNB is not a useful procedure for those with a Breslow < 1 and a mitotic rate ≥ 1. It is likely that the SIGN melanoma guidelines, currently under review, will be changed to reflect this. This change in management is demonstrated by the observation that of the 180 patients eligible for SLNB only 56 (31%) went on to have the procedure. The number eligible for SLNB who actually had the procedure was 77/57% of eligible in 2007 and has gradually declined since this time. Of the 56 having a SLNB 14 were found to be positive, 11 went on to have lymph node dissection with 5 having positive nodes on dissection.

Contact with a cancer nurse specialist (CNS) or dermatology skin cancer link nurse (dSCLN) varies depending upon region and clinician. In the Borders and D and G patients generally only come into CNS contact when referred into Lothian for further treatment. This situation is similar in Fife but in 2009 the role of dSCLN was developed. The dSCLN is a local dermatology nurse who has additional expertise in melanoma. 86% of patients in Fife were seen by the dSCLN in 2014/15. The results of the above project will be used to fully

evaluate this service. This local model requires sufficient dermatology nursing staff for their roles to be expanded. In D & G a link nurse role is being developed. In the Borders there is insufficient staff for this, Sandra Bagnall (SCAN) has been working with the local team to ensure adequate information leaflets are available and to specifically educate Macmillan staff regarding melanoma information. In Lothian funding has been secured for an additional CNS, this role will be developed in 2016.

This report provides comprehensive, accurate information which allows us to critically assess and improve all aspects of melanoma patient care. The main focus for 2015/16 will be to:

- Continue to facilitate data collection for melanoma QPIs and the comparative report
- to consider the role of the government detect cancer early initiative (DCE) and how this is best facilitated to reach the aim of detecting melanoma skin cancer earlier.

Megan Mowbray January 2016

Document History

Version	Circulation	Date	Comments
Version 1	Draft circulated to Lead clinicians ahead of pre-sign off meeting	16/10/2015	Some data changes and formatting
Version 2	Draft circulated to SCAN Skin Group	05/11/2015	Actions identified and clinical commentary added
Final Version	Circulated to SCAN Skin Group and Clinical Governance	05/02/2016	

Estimate of Case Ascertainment

Health Board	2014-15 SCAN Registrations	2011 - 2013 Average Number of Cancer Registrations per year^	Estimated Case Ascertainment
Borders	35	27	129.6%
D&G	46	33	139.4%
Fife*	57	63	90.5%
Lothian	200	183	109.3%
SCAN	**338**	**321**	**105.3%**

^ historical figures from ACaDMe

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

*Note: Fife's case ascertainment is low because 18 resident Fife patients were diagnosed, treated and registered in Tayside. Allowing for these numbers Fife's case ascertainment is comprehensive

Summary of Quality Performance Indicators

	Target	Borders	D&G	Fife	Lothian	SCAN
	%	%	%	%	%	%
QPI 1: Excision Biopsy	90	100.0	92.9	97.6	96.2	95.7
QPI 2: Pathology Reporting	90	0 (73.3)	28.6	68.3	0 (66.2)	14.1
QPI 3: Multi-Disciplinary Team Meeting (MDT)	95	100.0	60.9	96.4	100.0	94.0
QPI 4: Clinical Examination of Draining Lymph Nodes	95	51.4	30.4	71.9	90.0	45.3
QPI 5: Sentinel Node Biopsy Pathology	90	0 (50)	50.0	0	0 (69.2)	3.5
QPI 6: Wide Local Excisions	90	96.7	85.7	97.6	90.4	91.8
QPI 7: Time to Wide Local Excision	95	75.9	79.2	72.5	85.9	81.7
QPI 8: BRAF Status	75	100.0	n/a	100.0	75.0	83.0
QPI 9: Imaging for Patients with Advanced Melanoma	95	100	n/a	100	100	100
QPI 10: Systemic Therapy	60	0	n/a	0	75	50.0
QPI 11: Access to Lymphoedema Service	90	n/a	n/a	n/a	100.0	100.0

QPI 1:Excision Biopsy

QPI 1: Excision Biopsy	% Compliance achieved				
	Borders	**D&G**	**Fife**	**Lothian**	**SCAN**
patients with cutaneous melanoma should have their diagnostic excision biopsy carried out by a skin cancer clinician					
Number of patients diagnosed within cohort	35	46	57	200	338
Patients Ineligible for analysis - (non cutaneous melanoma)	0	0	0	5	5
Patients Ineligible for analysis - (partial biopsies)	5	18	16	38	77
Numerator - **All patients with cutaneous melanoma with diagnostic excision Biopsies carried out by skin cancer clinician**	30	26	40	151	245
Denominator - **All patients with cutaneous melanoma undergoing diagnostic excision biopsy (no exclusions)**	30	28	41	157	256
Not recorded for numerator	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
% of patients meeting QPI target - **TARGET - 90%**	**100.0%**	**92.9%**	**97.6%**	**96.2%**	**95.7%**

Note: for the purposes of this QPI, any member of dermatology trained to excise suspected melanomas are considered to come within the definition for numerator. These figures also include excisions performed within Opthalmology and ENT – whose consultants are likewise considered qualified.

QPI 2:Pathology Reporting

QPI 2: Pathology Reporting	% Compliance achieved				
	Borders	**D&G**	**Fife**	**Lothian**	**SCAN**
Surgical pathology reports for patients with cutaneous melanoma should contain full pathology information to inform treatment decision making					
Number of patients diagnosed within cohort	35	46	57	200	338
Patients Ineligible for analysis - (non cutaneous melanoma)	0	0	0	5	5
Patients Ineligible for analysis - (partial biopsies)	5	18	16	38	77
Numerator - **All patients with cutaneous melanoma undergoing diagnostic excision biopsy where the surgical pathology report contains a full set of data items (as defined by the current Royal College of Pathologists dataset) Histology Report Complete coded as "complete"**	0 **(22)**	8	28	0 **(104)**	36
Denominator - **All patients with cutaneous melanoma undergoing diagnostic excision biopsy (no exclusions)**	30	28	41	157	256
Not recorded for numerator	0	0	0	0	0
Not recorded for denominator**)**	0	0	0	0	0
% of patients meeting QPI target - **TARGET - 90%**	0% **(73.3%)**	28.6%	68.3%	0% **(66.2%)**	14.0%

Note: the figures in parentheses for Lothian and Borders represent the numbers for pathology reports completed for all but SNOMED. In most of these cases, as with those in Fife, the missing data is Pathological T stage (in the case of Lothian 98 out of 104 failed for this reason). There are also a handful of reports in all three boards that have used free text rather than the Pro Forma, leading to multiple missing items.

QPI 3:Multi-Disciplinary Team Meeting (MDT)

QPI 3: Multi-Disciplinary Team Meeting (MDT)	% Compliance achieved				
	Borders	D&G	Fife	Lothian	SCAN
Patients with cutaneous melanoma should be discussed by a multidisciplinary team prior to definitive treatment					
Number of patients diagnosed within cohort	35	46	57	200	338
Patients Ineligible for analysis - (non cutaneous melanoma)	0	0	0	5	5
Patients excluded for analysis - (died before treatment))	0	0	1	1	2
Numerator - All patients with cutaneous melanoma discussed at the MDT before definitive treatment (wide local excision, chemo/SACT, supportive care, and radiotherapy) Date discussed by care team (MDT) not coded as Not applicable and coded as before or equal to Date of Definitive treatment {Melanoma}	35	28	54	194	311
Denominator - All patients with cutaneous melanoma (excluding patients who died before treatment)	35	46	56	194	331
Not recorded for numerator	0	1	0	0	1
Not recorded for exclusion	0	0	0	0	0
% of patients meeting QPI target - **TARGET - 95%**	100.0%	60.9%	96.4%	100.0%	92.7%

QPI 4:Clinical Examination of Draining Lymph Node Basin

QPI 4: Clinical Examination of Draining Lymph Node Basin	% Compliance achieved				
	Borders	D&G	Fife	Lothian	SCAN
Patients with cutaneous melanoma should undergo clinical examination of relevant draining lymph node basins as part of clinical staging					
Number of patients diagnosed within cohort	35	46	57	200	338
Patients Ineligible for analysis - (non cutaneous melanoma)	0	0	0	5	5
Numerator - All patients with cutaneous melanoma who undergo clinical examination of relevant draining lymph node basins as part of clinical staging Date draining Lymph node basins examined should not be coded as Not Applicable	18	14	41	78	151
Denominator - All patients with cutaneous melanoma (no exclusions)	35	46	57	195	333
Not recorded for numerator	0	29	0	0	29
% of patients meeting QPI target - **TARGET - 95%**	**51.4%**	**30.4%**	**71.9%**	**40.0%**	**45.3%**

Note: these low figures reflect the fact that this examination has not been consistently recorded in clinical notes. This information is now being collected at the fortnightly MDM.

QPI 5:Sentinel Node Biopsy Pathology

QPI 5: Sentinel Node Biopsy Pathology	% Compliance achieved				
	Borders	**D&G**	**Fife**	**Lothian**	**SCAN**
Sentinel node biopsy (SNB) reports for patients with cutaneous melanoma should contain full pathology information to inform treatment decision making					
Number of patients diagnosed within cohort	35	46	57	200	338
Patients Ineligible for analysis - (non cutaneous melanoma)	0	0	0	5	5
Patients Ineligible for analysis - (No SLNB undertaken)	2	42	47	156	247
Numerator - All patients with cutaneous melanoma who undergo SLNB where the SNB report contains a full set of data (as defined by the current Royal College of Pathologists dataset)	0 (2)	2	0 (2)	0 (27)	2
Denominator - All patients with cutaneous melanoma who undergo SLNB (No exclusions) Sentinel Lymph Node Biopsy Performed coded as	4	4	10	39	57
Not recorded for numerator	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
% of patients meeting QPI target - **TARGET - 90%**	**0.0% (50.0%)**	**50.0%**	**0.0% (20.0%)**	**0.0% (69.2%)**	**3.5%**

Note: the figures in parentheses for Lothian, Borders and Fife represent the numbers for pathology reports that are complete with the exception of SNOMED. Apart from SNOMED the report failures for all these boards consist predominantly of confirmation info about dye seen in tissue, and the location of subcapsular deposits.

QPI 6:Wide Local Excisions

QPI 6: Wide Local Excisions	% Compliance achieved				
	Borders	D&G	Fife	Lothian	SCAN
Patients with cutaneous melanoma should undergo a wide local excision of the initial excision biopsy site to reduce the risk of local recurrence					
Number of patients diagnosed within cohort	35	46	57	200	338
Patients Ineligible for analysis - (non cutaneous melanoma)	0	0	0	5	5
Patients Ineligible for analysis - (partial biopsies)	5	14	15	38	72
patients excluded from analysis (died before treatment)	0	0	1	0	0
Numerator - All patients with cutaneous melanoma undergoing diagnostic excision biopsy who undergo a wide local excision *****surgery performed 2-4 Coded as Wide Local Excision	29	24	40	142	235
Denominator - All patients with cutaneous melanoma who undergo diagnostic excision biopsy (Excludes patients who died before treatment)	30	28	41	157	256
Not recorded for numerator	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
Not recorded for exclusion	0	0	0	0	0
% of patients meeting QPI target - **TARGET - 90%**	**96.7%**	**85.7%**	**97.6%**	**90.4%**	**91.8%**

Failure Reasons	Borders	D&G	Fife	Lothian	SCAN
initial excision biopsy - Margins deemed acceptable/WLE as first treatment	0	1	1	6	8
Disease progression - excision biopsy only	1	1	0	3	5
co-morbidities	0	0	0	3	3
delicate area - watch and wait	0	0	0	1	1
declined further treatment	0	1	0	1	2
other/awaiting treatment	0	1	0	0	1
left area prior to treatment	0	0	0	1	1

QPI 7:Time to Wide Local Excision

QPI 7: Time to Wide Local Excision	% Compliance achieved				
	Borders	D&G	Fife	Lothian	SCAN
Patients with cutaneous melanoma should have their wide local excision within 84 days of their diagnostic excision biopsy					
Number of patients diagnosed within cohort	35	46	57	200	338
Patients Ineligible for analysis - (non cutaneous melanoma)	0	0	0	5	5
Patients Ineligible for analysis - (partial biopsies)	5	17	16	38	76
Patients Ineligible for analysis - (no wide local excision carried out)	1	5	1	14	21
Numerator - All patients with cutaneous melanoma undergoing wide local excision within 84 days of their diagnostic excision biopsy:	22	19	29	122	192
Denominator - All patients with cutaneous melanoma who undergo Wide local excisions (No Exclusions)	29	24	40	142	235
Not recorded for numerator	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
% of patients meeting QPI target - **TARGET - 95%**	**75.9%**	**79.2%**	**72.5%**	**85.9%**	**81.7%**

QPI Failures					
Patient-induced delay	3	0	2	5	10
Co-morbidities	0	0	1	2	3
further investigations	1	0	0	2	3
Other medical complications	0	0	1	0	1
Hospital re-scheduling	0	0	1	0	1
Other	3	5	6	11	24

See also QPI failures pathway breakdown report on pages 36 and 37

QPI 7:Time to Wide Local Excision (eCase calculation including all biopsies)

QPI 7: Time to Wide Local Excision	% Compliance achieved				
	Borders	D&G	Fife	Lothian	SCAN
Patients with cutaneous melanoma should have their wide local excision within 84 days of their diagnostic excision biopsy					
Number of patients diagnosed within cohort	35	46	57	200	338
Patients Ineligible for analysis - (non cutaneous melanoma)	0	0	0	5	5
Patients Ineligible for analysis - (partial biopsies)	0	0	0	0	0
Patients Ineligible for analysis - (no wide local excision carried out)	1	5	6	14	26
Numerator - All patients with cutaneous melanoma undergoing wide local excision within 84 days of their diagnostic excision biopsy:	22	19	29	122	192
Denominator - All patients with cutaneous melanoma who undergo Wide local excisions (No Exclusions)	34	41	51	181	307
Not recorded for numerator	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
% of patients meeting QPI target - **TARGET - 95%**	**64.7%**	**46.3%**	**56.9%**	**67.4%**	**62.5%**

NB: these are the figures calculated by other regions using ecase and will therefore be used for SCAN at the national reporting level

QPI 8: B-RAF Status

QPI 8: B-RAF Status	% Compliance achieved				
	Borders	**D&G**	**Fife**	**Lothian**	**SCAN**
Patients with unresectable stage III or IV cutaneous melanoma should have their BRAF status checked.					
Number of patients diagnosed within cohort	35	46	57	200	338
Patients Ineligible for analysis - (non cutaneous melanoma)	0	0	0	5	5
Patients Ineligible for analysis - (disease stage < III)	32	28	55	186	301
Patients Ineligible for analysis - (disease stage > or equal to III and resectable)	0	0	1	5	0
Numerator - All patients with unresectable stage III or IV cutaneous melanoma who have their BRAF status checked	1	0	1	3	5
Denominator - All patients with unresectable stage III or IV cutaneous melanoma (No exclusions)	1	0	1	4	6
Not recorded for numerator	0	0	0	0	0
Not recorded for denominator	0	18*	0	0	18
% of patients meeting QPI target - **TARGET - 75%**	**100.0%**	**n/a**	**100.0%**	**75.0%**	**83.3%**

patient died before treatment	0	0	0	1	0
Other	0	0	0	0	0

*D&G - Not recorded for denominator:
18 patients with no AJCC stage recorded, (3 of these had BRAF checked)

QPI 9: Imaging for Patients with advanced Melanoma

QPI 9: Imaging for Patients with Advanced Melanoma	% Compliance achieved				
	Borders	D&G	Fife	Lothian	SCAN
Patients with stage III or IV cutaneous melanoma should be evaluated with appropriate imaging (CT/(PET) CT) to guide treatment decision making					
Number of patients diagnosed within cohort	35	46	57	200	338
Patients Ineligible for analysis - (non cutaneous melanoma)	0	0	0	5	5
Patients Ineligible for analysis - (disease stage < III)	32	28	55	186	301
Patients Ineligible for analysis - (disease stage = or > III and no completion lymphadenectomy)	1	0	1	5	7
Numerator - All patients with stage III or IV cutaneous melanoma undergoing completion lymphadenectomy who undergo CT or PET CT prior to completion	2	0	1	4	7
Denominator - All patients with III or IV cutaneous melanoma undergoing completion lymphadenectomy (No exclusions)	2	0	1	4	7
Not recorded for numerator	0	0	0	0	0
Not recorded for denominator	0	18*	0	0	18
% of patients meeting QPI target - **TARGET - 95%**	**100.0%**	**n/a**	**100.0%**	**100.0%**	**100.0%**

*D&G - Not recorded for denominator:
18 patients with no AJCC stage recorded

QPI 10: Systemic Therapy

QPI 10: Systemic Therapy	% Compliance achieved				
	Borders	D&G	Fife	Lothian	SCAN
Patients with unresectable stage III or IV cutaneous melanoma should receive Systemic Anti Cancer Therapy (SACT)					
Number of patients diagnosed within cohort	35	46	57	200	338
Patients Ineligible for analysis - (non cutaneous melanoma)	0	0	0	5	5
Patients Ineligible for analysis - (disease stage < III)	32	28	55	186	301
Patients ineligible for analysis - (disease stage > or = III **and** resectable)	2	0	1	5	5
Numerator - All patients with unresectable stage III or IV cutaneous melanoma who undergo SACT	0	0	0	3	3
Denominator - All patients with unresectable stage III or IV cutaneous melanoma (No exclusions)	1	0	1	4	6
Not recorded for numerator	0	0	0	0	0
Not recorded for denominator	0	18	0	0	18
% of patients meeting QPI target - **TARGET - 60%**	**0.0%**	**n/a**	**0.0%**	**75.0%**	**50.0%**

D&G – 18 patients Not recorded for denominator: no AJCC stage recorded. Note also that resectability has not been recorded at MDM and that deduction of this value (in the event of subsequent surgery) is not permitted.

Fife patient died prior to seeing oncologist

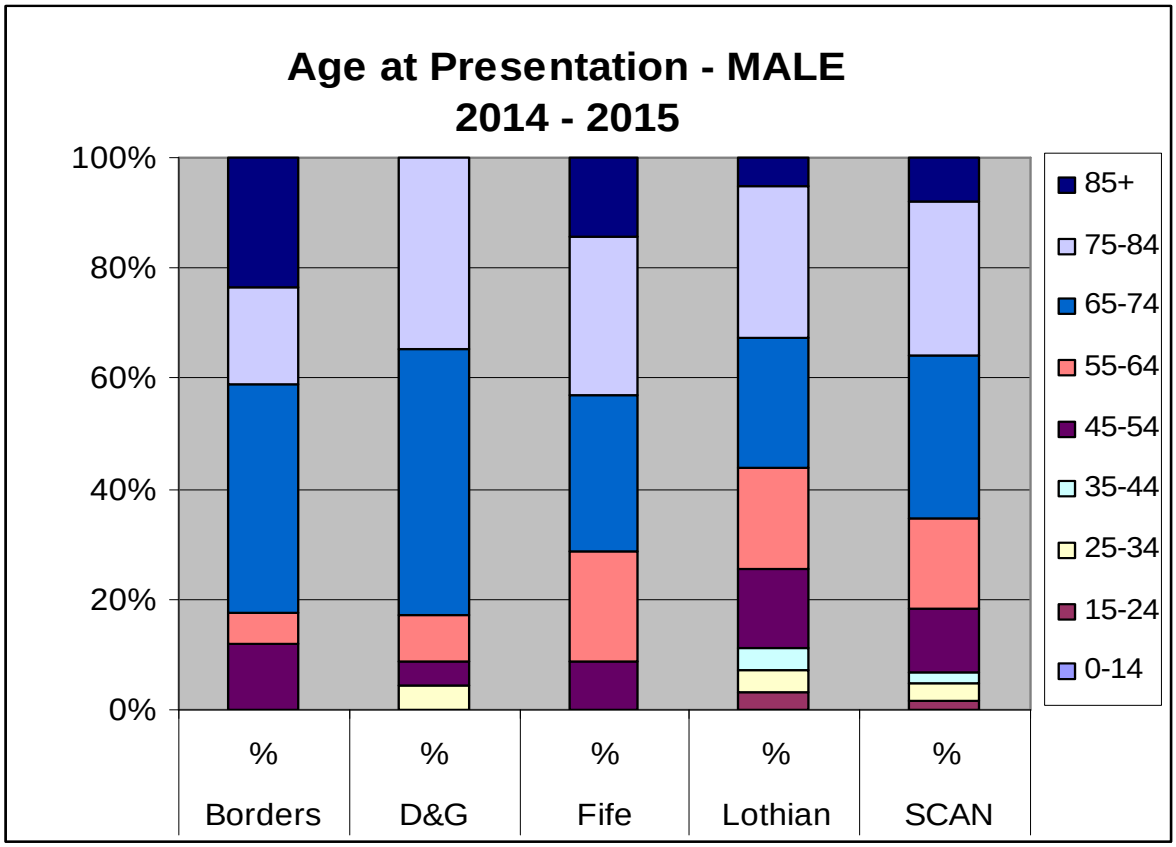
QPI 11: Access to Lymphoedema Service

QPI 11: Access to Lymphoedema Service	% Compliance achieved				
	Borders	D&G	Fife	Lothian	SCAN
Patients with cutaneous melanoma who undergo groin block dissection should be assessed for lymphoedema and have access to a lymphoedema service when clinically required					
Number of patients diagnosed within cohort	35	46	57	200	338
Patients Ineligible for analysis - (non cutaneous melanoma)	0	0	0	5	5
Patients Ineligible for analysis - (no groin block dissection performed)	35	46	57	198	336
Numerator - All patients with cutaneous melanoma undergoing groin block dissection: (Access to Lymphoedema service codes as yes)	0	0	0	2	2
Denominator - All patients with cutaneous melanoma undergoing groin block dissection (No exclusions): (groin block dissection Performed {Melanoma} coded as Yes)	0	0	0	2	2
Not recorded for numerator	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
% of patients meeting QPI target - **TARGET - 40%**	**n/a**	**n/a**	**n/a**	**100.0%**	**100.0%**

Table 1: Age at Presentation n338 patients

Male	Borders		D&G		Fife		Lothian		SCAN	
Age	n	%	n	%	n	%	n	%	n	%
0-14	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
15-24	0	0.0	0	0.0	0	0.0	3	3.1	3	1.7
25-34	0	0.0	1	4.3	0	0.0	4	4.1	5	2.9
35-44	0	0.0	0	0.0	0	0.0	4	4.1	4	2.3
45-54	2	11.8	1	4.3	3	8.6	14	14.3	20	11.6
55-64	1	5.9	2	8.7	7	20.0	18	18.4	28	16.2
65-74	7	41.2	11	47.8	10	28.6	23	23.5	51	29.5
75-84	3	17.6	8	34.8	10	28.6	27	27.6	48	27.7
85+	4	23.5	0	0.0	5	14.3	5	5.1	14	8.1
Total	17	100.0	23	100.0	35	100.0	98	100.00	173	100.0

Female	Borders		D&G		Fife		Lothian		SCAN	
Age	n	%	n	%	n	%	n	%	n	%
0-14	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
15-24	0	0.0	0	0.0	0	0.0	2	2.0	2	1.2
25-34	0	0.0	1	4.3	1	4.5	7	6.9	9	5.5
35-44	1	5.6	2	8.7	2	9.1	11	10.8	16	9.7
45-54	0	0.0	3	13.0	4	18.2	19	18.6	26	15.8
55-64	8	44.4	3	13.0	4	18.2	11	10.8	26	15.8
65-74	3	16.7	9	39.1	4	18.2	27	26.5	43	26.1
75-84	3	16.7	4	17.4	4	18.2	19	18.6	30	18.2
85+	3	16.7	1	4.3	3	13.6	6	5.9	13	7.9
Total	18	100.0	23	100.0	22	100.0	102	100.0	165	100.0


Age at Presentation - MALE
2014 - 2015
100%
80%
60%
40%
20%
0%
85+
75-84
65-74
55-64
45-54
35-44
25-34
15-24
0-14
% Borders
% D&G
% Fife
% Lothian
% SCAN

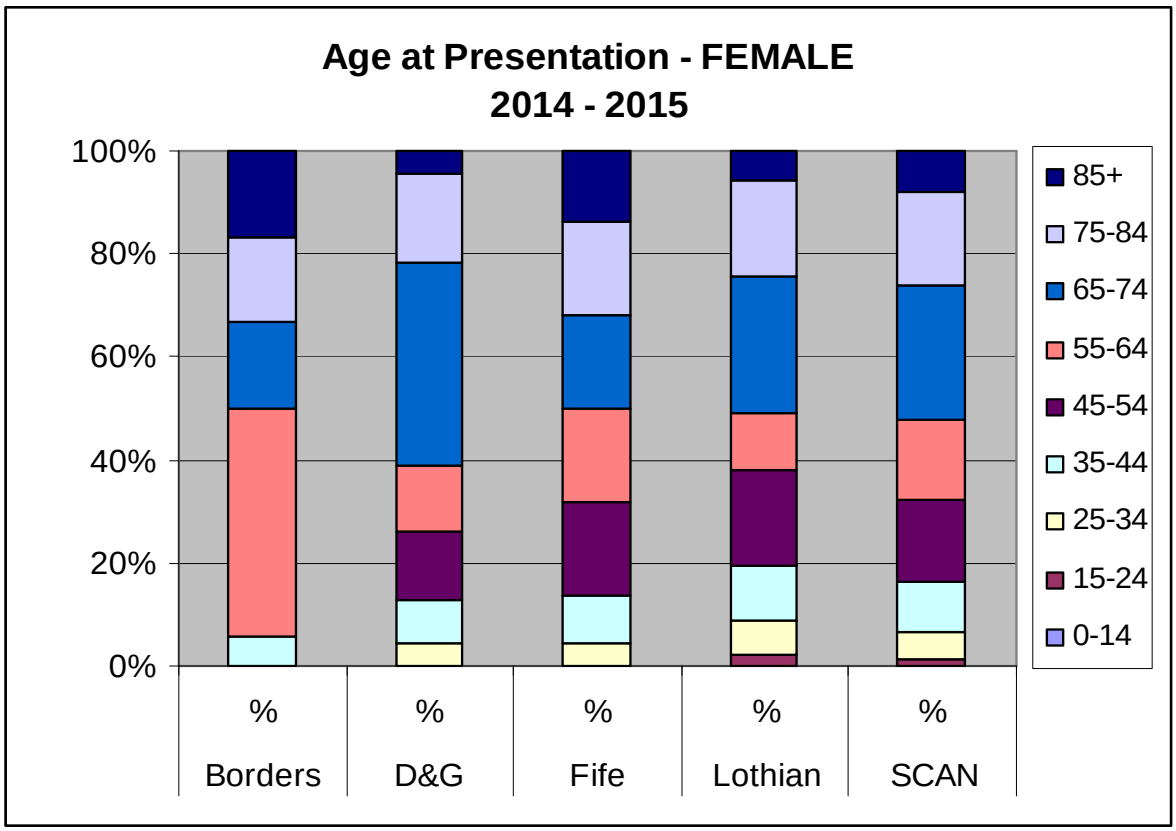

Age at Presentation - FEMALE
2014 - 2015
100%
80%
60%
40%
20%
0%
85+
75-84
65-74
55-64
45-54
35-44
25-34
15-24
0-14
% Borders
% D&G
% Fife
% Lothian
% SCAN

Table 1a: Incidence in Working Age population 2014-2015 (18 to 64, M/F)

	Borders		D&G		Fife		Lothian		SCAN	
Number	n	%	n	%	n	%	n	%	n	%
Incidence	12	34.2	15	32.6	21	36.8	95	47.5	143	42.3

2013 figures

	Borders		D&G		Fife		Lothian		SCAN	
Number	n	%	n	%	n	%	n	%	n	%
Incidence	10	33.3	21	45.7	86	48.6	18	40.0	135	45.3

Table 1b: Incidence in Working Age population Year on Year (18 to 64, M/F)

Year	no of working age people	% of Tot
2014-15	143	42.3
2013	135	45.3
2012	155	48.6
2011	156	51.5

Table 1c: Median Age at Diagnosis 2014-15

Borders		D&G		Fife		Lothian	
Male	Female	Male	Female	Male	Female	Male	Female
73	64	71	66	73	65	67	65

Table 1d: Median Age at Diagnosis (2002-2015)

Year	Male	Female	Area
2014-15	71	66	B F L D&G
2013	68.5	63.5	B F L D&G
2012	66	66	B F L
2011	65	61	B F L
2010	65	54	B L
2009	64	53	B L
2008	64	56	B F(6/12 only) L
2007	64	55	B F L
2006	58	58	B F L
2005	61	57	B F L
2004	61	48	B F L
2003	61	55	B F L
2002	64	51	B F L

Table 1e: Gender incidence ratio (2007-2015)

Year	Male	Female
2014-15	1	1.0
2013	1	1.0
2012	1	1.2
2011	1	1.0
2010	1	1.1
2009	1	1.1
2008	1	1.4
2007	1	1.7

Table 2: Anatomical Site n338 lesions

Site:	SCAN 2014/15		2010 -13		SCAN 2014/15		2010 -13	
	n	%	n	%	n	%	n	%
	Male		Male		Female		Female	
Head and Neck*	53	30.6	160	27.0	30	18.3	123	19.5
Trunk anterior	24	13.9	64	10.8	10	6.1	46	7.3
Trunk posterior	49	28.3	169	28.5	26	15.9	88	13.9
Arm (unspecified)	1	0.6	5	0.8	5	3.1	10	1.6
Arm above elbow	17	9.8	29	4.9	33	20.1	63	10.0
Arm below elbow	9	5.2	54	9.1	17	10.4	51	8.0
Leg (unspecified)	2	1.2	4	0.7	3	1.8	7	1.1
Leg above knee	5	2.9	25	4.2	11	6.7	58	9.2
Leg below knee	9	5.2	34	5.7	24	14.6	126	19.9
Acral	1	0.6	19	3.2	2	1.2	35	5.5
Mucosal	1	0.6	7	1.2	0	0.0	11	1.7
Subungual	0	0.0	4	0.7	0	0.0	4	0.6
Mets at presentation	2	1.2	19	3.2	3	1.8	10	1.6
SCAN	173	100.0	593	100.0	164*	100.0	632	100.0

*1 x not recorded (D&G)

Top three anatomical sites for SCAN 2014-15			
Male	Head & Neck (30.6%)	Trunk Posterior (28.3.%)	Trunk Anterior (13.9%)
Female	Arm above elbow (20.1%)	Head & Neck (18.3%)	Trunk Posterior (15.9%)

Top three anatomical sites for SCAN 2010 – 2013			
Male	Trunk Posterior (28.5%)	Head & Neck (27.0%)	Trunk Anterior (10.8%)
Female	Leg below knee (19.9%)	Head and neck (19.5%)	Trunk Posterior (13.9%)

Table 3: Histogenetic Type of Melanoma n338 lesions

SCAN				
	n	%	n	%
	Male		Female	
Lentigo Maligna Melanoma	30	17.3	25	15.2
Superficial Spreading	95	54.9	91	55.2
Nodular	11	6.4	16	9.7
Acral	1	0.6	2	1.2
Mucosal	0	0.0	0	0.0
Desmoplastic	3	1.7	1	0.6
Mixed (desmoplastic)	2	1.2	1	0.6
Not assessable	2	1.2	3	1.8
Unclassifiable (Melanoma NOS)	26	15.0	21	12.7
Spitzoid	1	0.6	1	0.6
Other	0	0.0	1	0.0
Secondary (Mets)	2	1.2	3	1.8
TOTAL	**173**	**100.0**	**165**	**100.0**

NB: a new category, “not assessable”, has been added to distinguish incomplete recording with difficult histological cases

Unclassifiable 2014-15

Fife		Lothian& Borders		D&G	
n	%	n	%	n	%
3	5.3	12	5.1	32	69.6

Note for Fife: 1 biopsy unable to be classified, and 2 further incomplete specimens from partial biopsies

Note for D&G: the high level of unclassified Melanomas (NOS) reflects a shortfall of specialist pathologists within the board. This raises the question of whether these cases should be referred to Lothian for second opinion. This might introduce unacceptable delays in patient treatment.

Note for Lothian & Borders (from Pathology):
The subtype of melanoma is marked as “unspecified” for 2 reasons – 1. the biopsy is not generous enough to type it accurately. 2. a significant proportion of melanomas are difficult to categorize into one of the 4 common types or any of the rare unusual subtypes even on a large biopsy. It is common practice to leave these as “melanoma-NOS”

Six of the Lothian and Borders cases were partial samples, so the melanoma subtype could not be established with certainty. There were also cases showing extensive regression, where it was not possible to ascribe a subtype due to disappearance of much of the tumour.

Table 4: Method of diagnosis n338 lesions

	Borders		D&G		Fife		Lothian		SCAN	
	n	%	N	%	n	%	n	%	N	%
Incision/Punch	5	14.3	13	28.3	14	24.6	34	17.0	66	19.5
Shave/C&C	0	0.0	6	13.0	3	5.3	3	1.5	12	3.6
Sample biopsy (Total)	5	14.3	19	41.3	17	29.8	37	18.5	78	23.1
Excision/Amputation	30	85.7	27	58.7	39	68.4	159	79.5	255	75.4
FNA	0	0.0	0	0.0	0	0.0	2	1.0	2	0.6
Other	0	0.0	0	0.0	**1**	1.8	0	0.0	1	0.3
Not recorded/Inapplicable	0	0.0	0	0.0	0	0.0	**2**	1.0	0	0.6
Total	35	100	46	100	57	100	200	100	338	100

1 Fife Other = thin melanoma found after WLE for in situ disease
2 Lothian Inapplicable – Mets at presentation

Note1: 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.

Note2: Incomplete removal may compromise subsequent measurements of tumour thickness. Suspected melanomas or suspicious melanocytic lesions should not be treated with curettage and cautery

Note3: Research findings. In recent research projects involving two medical students, and supervised by Edinburgh consultant dermatologist Alex Holme, statistics showed no difference in recurrence or mortality after 5 years between partial biopsies compared to full excisions when carried out at the diagnostic biopsy stage.

Table 4a: Sample biopsy Year on Year

	Borders		D&G		Fife		Lothian		SCAN	
	n	%	n	%	n	%	n	%	n	%
2014-15	**5**	**14.3**	**19**	**41.3**	**17**	**29.8**	**37**	**18.5**	**78**	**23.1**
2013	6	20.0	18	40.0	14	29.8	43	23.8	81	26.7
2012	5	15.2	8	27.6	15	23.1	49	25.5	77	24.1
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
2009 (excl D&G)									55	19.4
2008 (excl D&G)									60	21.3

Table 5:Time from Diagnostic Biopsy to issue of Pathology Report

n292 lesions

Time interval in days	Borders		D&G*		Fife		Lothian		SCAN	
	n35	%	n0	%	n57	%	n200	%	n292	%
0-14	14	42.4	n/a	n/a	48	84.2	87	43.5	149	51.0
15-28	15	33.3	n/a	n/a	8	14.0	97	48.5	120	41.1
>28	6	12.1	n/a	n/a	1	1.8	11	5.5	18	6.2
Inapplicable	0	0.0	n/a	n/a	0	0.0	5*	2.5	5	1.7
Median	17						15			

***** Lothian: 5 cases inapplicable (Metastases at presentation)

Borders and Lothian histology: NHS Lothian, University Hospitals Division Pathology Department, Western General Hospital, Edinburgh

Fife histology: Fife Area Laboratory, Kirkcaldy

Note: It is recommend that SCAN Audit users of eCase continue to record the pathology reporting date as it assists with understanding delay points in the breakdown of statistics which are used in relation to QPI 7 (time between first and second treatment). However, it is reported from D&G that this data has not been recorded due to its non-inclusion in the dataset and therefore there are no stats for this board for 2014-15.

Note on outliers: some tissue samples processed off site result in an inbuilt delay, eg St John's samples may be sent to RIE and then onwards to WGH before being reported. Additionally, some samples are more difficult to assess. These cases sometimes require secondary opinion and can slow down release of the lab report.

Table 5a: Median Wait Time from Diagnosis to Pathology Report (Year on Year)

Time interval in days By Year of Report	Borders and Lothian	D&G	Fife
2014-15	15	n/a	
2013	14	6	10
2012	14	7	9
2011	13	5	8
2010	14	9	7
2009	15	n/a	6
2008	15	n/a	7

Table 6: Breslow Depth n338 lesions

Male	Borders		D&G		Fife		Lothian		SCAN		**SCAN 2011-2013**	
mm	n	%	n	%	n	%	n	%	n	%	**n**	**%**
0-0.99	8	47.1	10	43.5	24	68.6	61	62.2	103	59.5	**248**	**55.6**
1-1.99	0	0.0	4	17.4	4	11.4	15	15.3	23	13.3	**64**	**14.3**
2-2.99	4	23.5	1	4.3	4	11.4	4	4.1	13	7.5	**31**	**6.9**
3-3.99	1	5.9	2	8.7	1	2.9	6	6.1	10	5.8	**19**	**4.3**
>=4	4	23.5	4	17.4	2	5.7	9	9.2	19	11.0	**66**	**14.8**
Mets	0	0.0	0	0.0	0	0	2	2.0	2	1.2	**16**	**3.6**
N/R	0	0.0	2	8.7	0	0	1	1.0	3	1.7	**2**	**0.4**
Total	17	100.0	23	100.0	35	100.0	98	99.0	173	100.0	**446**	**100.0**

NB: 1 x N/R (not recorded) for Lothian (Oral melanoma)

Female	Borders		D&G		Fife		Lothian		SCAN		**SCAN 2011-2013**	
mm	n	%	n	%	n	%	n	%	n	%	**n**	**%**
0-0.99	10	55.6	12	52.2	6	27.3	61	59.8	89	53.9	**295**	**61.5**
1-1.99	2	11.1	5	21.7	9	40.9	18	17.6	34	20.6	**76**	**15.8**
2-2.99	1	5.6	2	8.7	2	9.1	7	6.9	12	7.3	**29**	**6.0**
3-3.99	0	0.0	0	0.0	1	4.5	2	2.0	3	1.8	**20**	**4.2**
>=4	5	27.8	2	8.7	4	18.2	11	10.8	22	13.3	**49**	**10.2**
Mets	0	0.0	0	0.0	0	0.0	3	2.9	3	1.8	**6**	**1.3**
N/R	0	0.0	2	8.7	0	0.0	0	0.0	2	1.2	**5**	**1.0**
Total	18	100.0	23	100.0	22	100.0	102	100.0	165	100.0	**480**	**100.0**

Table 7: Pathology: Mitotic Rate n338 lesions

Mitotic rate per mm²	Borders		D&G		Fife		Lothian		SCAN	
	n	%	n	%	n	%	n	%	n	%
*zero	16	45.7	12	26.1	18	31.6	113	56.5	159	47.0
≥1mm²	19	54.3	27	58.7	39	68.4	79	39.5	164	48.5
Nr/na	0	0.0	7	15.2	0	0.0	8	4.0	15	4.4
Total	35	100.0	46	100.0	57	100.0	200	100.0	338	100.0

*zero includes those reported as <1mm²

NB: high % volume of greater mitotic rate in Fife corresponds with its figures for thicker melanomas (see Table 2)

Table 8: Pathology: Ulcerations n338 lesions

Ulceration reported	Borders		D&G		Fife		Lothian		SCAN	
	n	%	n	%	n	%	n	%	n	%
Ulceration	6	17.1	4	8.7	13	22.8	24	12.0	47	13.9
No ulceration	29	82.9	36	78.3	39	68.4	167	83.5	271	80.2
Nr/na	0	0.0	6	13.0	5	8.8	9	4.5	20	5.9
Total	35	100.0	46	100.0	57	100.0	200	100.0	338	100.0

Melanoma National Data Definitions 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."

NB: high % volume of not Nr/na (not recorded/inapplicable) for D&G in both the above tables. This reflects a summarised form of pathological reporting which is now being addressed by adoption of the standard pro-forma.

Table 13: Median wait in days for 2nd stage treatment following diagnosis (Year on Year all patients)

Median wait in days	Borders	D&G	Fife	Lothian
2014-15	**57**	**48**	**71**	**51**
2013	67	51	66	51
2012	61	59	64	47
2011	65	48	58	48
2010	58	53	57	51
2009	55	n/a	67	56
2008	48	n/a	63	55

Table 13a: Patient wait >84 days for 2nd stage treatment following diagnosis 2014-15

	Borders		D&G		Fife		Lothian		SCAN	
	n	% of Total WLE	n	% of Total WLE	n	% of Total WLE	n	% of Total WLE	n	% of Total WLE
	7	24.1	5	20.8	11	27.5	20	14.1	43	18.3

Fife

NB: this report includes 4 patients whose diagnostic biospsies were partial

Patient	No of Days	Derm Cons/ OPSU RG	Dx to Path	Path to MDM	MDM to ref to Plastics	Ref to Seen By Plastics	Plastics to WLE	Cons	Hosp of WLE	Comments
1	85	SR	14	4	3	24	40	OQ	NW	
2	87	SF	3	15	-8	39	38	KM	QMH	
3	87	K Amy	8	10	3	28	38	KM	VHK	
4	87	Riad ENT	5	9	n/a	n/a	n/a	MR	VHK	Patient induced delay
5	88	SF	18	4	19	27	20	SW	QMH	
6	88	MM	8	17	-10	21	52	OQ	QMH	
7	93	SF	5	11	-2	33	46	OQ	QMH	
8	107	SF	6	10	-2	41	52	SW	NW	
9	110	SF	5	17	-8	39	57	SW	NW	
10	120	MM	11	21	-10	41	57	SW	VHK	Hosp rescheduled Plastics appointment
11	126	SF	29	22	-7	35	47	PL	VHK	

Borders

Patient	No of Days	Derm Cons	Dx to Path	Path to MDM	MDM to ref to Plastics	Ref to Seen By Plastics	Plastics to WLE	Cons	Hosp of WLE	Comments
1	85	SL	20	10	0	7	48	MB	WGH	Further investigations
5	90	DK	34	17	0	7	32	MB	STJ	
2	104	DK	13	15	0	7	69	MB	WGH	Patient-induced
3	106	SL	22	8	20	36	20	DCW	STJ	
4	123	AM	44	7	0	23	49	MB	STJ	
6	134	SL	30	22	5	13	64	CR	STJ	Patient-induced
7	134	SL	30	8	19	13	64	CR	STJ	Patient-induced

Lothian

Patient	No of Days	Derm Cons	Dx to Path	Path to MDM	MDM to ref to Plastics	Ref to Seen By Plastics	Plastics to WLE	Cons	Hosp of WLE	Comments
1	85	VRD	9	14	0	10	52	CR	SJH	
2	86	SAH	10	20	0	0	56	MB	WGH	
3	86	VRD	8	9	0	24	45	MB	WGH	
4	88	SAH	13	11	7	7	50	MB	WGH	
5	89	SAH	13	11	7	8	50	MB	WGH	Further investigation
6	89	GK	15	5	10	11	31	SH	SJH	
7	90	GK	17	14	0	3	56	CR	WGH	
8	90	(GP)	39	3	0	17	31	CR	SJH	
9	90	SAH	35	9	0	n/a	46	SAH	Laur	
10	98	JLR	14	8	0	31	45	CR	STJ	
11	94	SAH	21	4	0	n/a	69	SAH	Laur	Thin MM
12	95	CM	12	16	0	10	57	HB	SJH	
13	97	SR	17	4	0	42	34	MB	WGH	Patient-induced
14	101	VRD	15	10	0	18	77	CR	WGH	Co-morbids
15	106	VRD	10	14	0	25	57	HB	WGH	Patient-induced
16	106	CM	13	10	0	18	65	CR	SJH	Patient-induced
17	108	VRD	8	9	0	21	70	MB	WGH	Patient-induced
18	111	SAH	11	14	0	10	76	CR	WGH	Co-morbids further invest
19	140	RA	16	15	4	27	78	CR	WGH	Co-morbids
20	143	SAH	21	3	35	17	67	CR	SJH	Patient-induced

Table 14: Sentinel lymph node biopsy (SLNB)

	Borders		D&G		Fife		Lothian		SCAN	
	n35	% of Total	n46	% of Total	n57	% of Total	n200	% of Total	n338	% of Total
Patients eligible for SLNB	20	57.1	33	71.7	40	70.2	87	43.5	180	61.6
Patients receiving SLNB	4	11.4	3	6.5	10	17.5	39	19.5	56	19.2
Patients with +ve SLNB	3	8.6	0	0.0	3	5.3	8	4.0	14	4.8

Table 14a: Sentinel lymph node biopsy (Year on Year)

Year	eligible (% of total)	SLNB carried out (Total No)	SLNB carried out (% of eligible)	Positive SLNB (Total No)	Positive (% of carried out)
2014-15	61.6	56	31.1	14	25.0
2013	52.3	51	31.9	15	29.4
2012	48.9	65	41.7	11	16.9
2011	53.9	92	56.1	15	16.3
2010	46.9	86	70.0	15	16.7
2009	48.8	91	66.0	15	16.5
2008	32.7	92	63.4	10	10.9
2007	50.2	77	57.0	21	27.3

Note: Years 2007, 2008, 2009 and 2010 exclude D&G patient data

Table 15: Lymph Node Dissection

	Borders		D&G		Fife		Lothian		SCAN	
	n35	%	n46	%	n57	%	n200	%	n338	%
Lymph node dissection	3	8.6	0	0.0	2	3.5	6	3.0	11	3.8
Positive lymph nodes	0	0.0	0	0.0	1	1.8	4	2.0	5	1.7

Current practice is for patients with a positive sentinel node to proceed to radical node dissection. Note also that some patients may undergo node clearance without previous SLNB. .

Table 15a: Lymph Node Dissection (Year on Year)

Lymph node dissection	SCAN	n Positive	% positive
2014-15	11	5	45.5
2013	19	11	58.0
2012	16	5	31.3
2011	20	8	40.0

2010	17	4	23.5

Table 17: Contact with Cancer Nurse Specialist (CNS) for Melanoma

Patient contact with CNS	Borders		D&G		Fife		Lothian		SCAN	
	n	%	n	%	n	%	n	%	n	%
Contact	16	45.7	7	15.2	49	86	168	85.7	184	80.0
No contact	19	54.3	39	84.8	8	14	28	14.3	46	20.0
Total	35	100	46	100	57	100	196	100	230	100

Note on Borders: patients generally only come into CNS contact when referred into Lothian for further treatment. Patients receiving initial diagnosis and treatment at St Johns in Livingstone are sometimes not picked up. Lothian figures also reflect a degree of clinical preference in whether CNS referral is required.

Note on 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 and this is reflected in the CNS contact figure of 86%. These nurses will nevertheless liaise with the regional CNS if there any issues which need additional help.

Note on D&G: The 7 cases of CNS contact are patients who were referred on to Lothian for further treatment/discussion. D&G have not had CNS or Link nurse support but this role is now due to be provided.

Table 17a: Contact with Cancer Nurse Specialist (CNS) for Melanoma (Year on Year)

Patient contact with CNS (%)	Borders	D&G	Fife	Lothian	SCAN
2013	36.7	35.6	37.0	87.3	61.4
2012	60.6	17.2	61.5	80.7	67.4
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

Melanoma Oncology 2014-15

Clinical Trials in Melanoma in Edinburgh 2014 - 2015

Adjuvant

1) **BRIM 8**
A phase III randomized double blind placebo controlled study of vemurafenib adjuvant therapy in patients with surgically resected cutaneous BRAF-mutant melanoma at high risk for recurrence.

The study is currently **closed to recruitment** and 3 patients are on follow up.

2) **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**. 8 patients remain on follow up. Interim analysis showed in improvement in overall survival but avastin associated with improved disease-free survival.

Metastatic

1) PACMEL
A randomized phase 2 study of paclitaxel with or without GSK1120212 or pazopanib in advanced wt BRAF melanoma.

This study is currently **open to recruitment** and 3 patients have been entered.

3) MK3475 – 006
A muilticenter randomized controlled three-arm phase III study to evaluate the safety and efficacy of two dosing schedules of MK-3475 compared to ipilimumab in patients with advanced melanoma.

This study **completed recruitment Jan 2014**, 9 patients were recruited and 2 patients remain on study.

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

Glossary

Acral: relating to the extremities of peripheral body parts (fingers/palms/soles)

Adjuvant treatment: treatment that is given in addition to the primary, main or initial treatment

Anterior: nearer the front (of body)

Breslow Depth: prognostic factor in melanoma of the skin which describes how deeply tumor cells have invaded.

Desmoplastic: growth of fibrous or connective tissue

Desmoplastic melanoma: rare subtype of melanoma characterised by malignant spindle cells

Histogenetic Type: relating to formation of body tissue

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

Lentigo Maligna: a specific type of melanoma in situ that occurs around hair follicles on the sun-damaged skin of the head and neck

Lentigo Maligna Melanoma: melanoma evolving from Lentigo Maligna

Mitosis (pl. Mitoses): the process of cell division

Mitotic Rate: a measurement of how fast tumour cells are dividing.

Mucosal: relating to mucous membranes

Naevoid: resembling/in the form of a naevus/naevi

Nodular Melanoma: type of malignant, often fast-growing melanoma which typically presents as a raised bluish-black tumour

Pathological T stage: pathological staging of the tumour based on examined specimens of tissue

Polypoid: resembling/in the form of a polyp

Review patient: patient attending outpatient cancer clinic as part of follow-up for a previous melanoma

Spitzoid melanoma: melanoma with the features of a Spitz naevus (a rare melanocytic lesion)

Subungual: beneath a fingernail or toenail

Superficial spreading melanoma: most common form of cutaneous melanoma in Caucasians. Occurs most frequently from middle age onwards on sun-exposed skin. especially on the backs of males and lower limbs of females.