

Working regionally to improve cancer services

# SOUTH EAST SCOTLAND CANCER NETWORK (SCAN) PROSPECTIVE CANCER AUDIT

# Melanoma 2018-2019 Comparative Audit Report

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#### **Document history**

Version	Circulation	Date	Comments
1	Lead clinicians Sign Off Meeting	15/11/19	D&G results were not available in time for the Regional Sign off meeting. So only Borders, Fife and Lothian results were discussed.
2	SCAN Skin Lead clinician and sign off group	24/12/19	D&G data inserted . Omissions and errors corrected. Key Category data added
2.2	SCAN Skin Lead clinician and sign off group	14/2/2020	Lead Clinician's commentary added. Actions confirmed.
3	SCAN Skin Group	26/2/2020	For discussion at SCAN Group on 6/3/2020
Final Version	SCAN Group SCAN Governance Framework SCAN Action Plan Board Leads	1/6/2020	(Covid19 related delay) Assessed for disclosive information
Web version	Published to SCAN Website	May 2021	

# **Comment by SCAN Skin Group Chair**

This report provides comprehensive data on patients who presented with a new diagnosis of cutaneous melanoma in South-East Scotland between 1<sup>st</sup> July 2018 and to 30<sup>th</sup> June 2019. Sincere thanks to the SCAN Audit Team for their hard work in compiling this report and for ensuring that the data is once again, of high quality. The initial part of this report focuses on SCAN performance data for the melanoma Quality Performance Indicators (QPIs) and additional important data is included at the end of the report.

A total of 310 new cases of melanoma were recorded in SCAN during the reporting period which is similar to previous years.

At the point of melanoma diagnosis there was a fall in the percentage of cases that had an excision biopsy performed by a designated skin cancer clinician (78% and 73% versus target of 95% for QPI1a and QPI1b). This is largely explained by the increased use of external providers in NHS Lothian. Local agreement has now been made to ensure that external providers are part of the melanoma MDT and can meet agreed criteria for designation as a 'skin cancer clinician'.

There has been considerable improvement in completeness of pathology compared to previous years although this remains variable across the region (89 and 98% versus target of 90% for QPI 2 and QPI5 respectively.

There has been no major change in the percentage of patients being discussed at the MDT prior to definitive treatment (89% versus target of 95% for QPI3).

The percentage of patients having documented evidence of a clinical examination of draining lymph nodes has improved in the last year (97% versus target of 95% for QPI4).

As with previous years there were relatively few patients who did not go on to complete a wide local excision following initial melanoma excision (90% versus target of 95% for QPI6).

The relatively low percentage of patients completing a wide local excision within 84 days of a diagnostic biopsy remains the most challenging and concerning QPI (63% and 65% versus target of 95% for QPI 7a and 7b respectively). There is also considerable regional variation with highest performance in Fife and lowest performance in Lothian. This QPI highlights the need to make changes to improve efficiency at several points of the melanoma diagnostic pathway.

Once again interpretation of QPI 8 (regarding BRAF testing) and QPI 10 (use of systemic therapy) is challenging given the relatively small numbers of patients represented.

The percentage of patients completing radiological staging within 35 days of a diagnosis of stage IIC -IV melanoma is low (25% versus target of 95%) and further work is required to fully understand the reasons behind this and what improvements can be considered.

The proportion of patients where complete excision is undertaken with documented clinical margins of 2mm prior to definitive treatment (QPI 12) was relatively low (52%) with large regional variation. This is a new QPI and further work is required to ensure

that all clinicians are aware of the importance of appropriate documentation of operative margins.

Finally, the number of patients with melanoma entering clinical trials remains low (1.5% versus target of 15%) although new clinical trials are scheduled to open in 2020.

In summary, although improvements in a number of QPIs have been made (QPI 4 and 5), these were the only QPIs where the target was achieved. Significant ongoing challenges remain in fully understanding the drivers for poor performance in several of the other QPIs. Identification of measures to improve performance across the whole melanoma diagnosis and treatment pathway is a high priority for the year ahead.

Ewan Brown SCAN Lead for Melanoma February 2020

#### Action Points from 2018-19

QPI	Action required	Person responsible	Date for update
1	All Boards to provide updated list of clinicians designated for biopsies	Andrew MacKenzie Lyndsey Yeo Megan Mowbray Mark Butterworth	
3 8 9 10	AJCC needs to be documented on MDM referral forms and highlighted at the MDM.	Andrew MacKenzie Lyndsey Yeo Megan Mowbray Mark Butterworth	
6	Keep a note of numbers of patients who decline treatment in order to inform next formal review of the QPI.	Lorna Bruce	
7	Pathway review is required	Ewan Brown	
9	Review dates of CT requests in cases of >35 days from diagnosis to CT date.	Audit Facilitators / Lead clinicians.	
12	All Boards need to ensure that surgeons are aware of the QPI requirements and that margin sizes are clearly documented on operation notes at time of excisional biopsy.	Andrew MacKenzie Lyndsey Yeo Megan Mowbray Mark Butterworth Ben Aldridge	

### Action Points from 2017-18

QPI	Action Required	Person responsible	Status
	AM to write to GPs in Borders performing melanoma biopsies and remind them of guidance for pigmented lesions.	Andrew MacKenzie	Complete
1	Lothian to ensure that an appropriate representative for the "18 week team" is present at the MDM. Appoint NHS Lothian dermatologist to act as liaison between third party clinicians and the Multi Disciplinary Team (MDT).	Kim Crawford	Complete
•	A list of relevant skin cancer clinicians is to be provided to audit facilitators by the local clinical leads and updated annually	Andrew MacKenzie Lyndsey Yeo Megan Mowbray Ee Ting Mark Butterworth	Complete
2	Proforma use is actively being encouraged in D&G.LB will request that D&G lead pathologist review the 15 cases to discern whether a proforma was used or whether there is a different systemic problem.	Stanford Mathie	Ongoing
4	Clinicians to be explicit in documenting lymph node examination in the patient record, preferably at time of biopsy. Pathology proforma overlay / stamp to be fully implemented to facilitate this in Borders and Lothian.	Andrew MacKenzie Lyndsey Yeo Megan Mowbray Ee Ting Mark Butterworth	Ongoing
5	SLNB reporting proforma to be developed by Lothian pathology	Jonathan Davie	Complete
7	Regional leads to discuss outliers locally and produce a report detailing the reasons for delay and proposed actions. Note that money may be available for waiting time improvements.	Andrew MacKenzie Lindsey Yeo Megan Mowbray Mark Butterworth	ongoing
	Regional leads to discuss outliers locally and produce a report detailing reasons for delays in QPI 9 and proposed actions.	Andrew MacKenzie Lindsey Yeo Megan Mowbray Mark Butterworth	ongoing
9	SCAN to continue to collect data regarding SLNB eligibility and outcome	Lorna Bruce	ongoing
	Borders management to be made aware of data regarding melanoma patient support in the SCAN region, highlighting the inequality for melanoma patients from the Borders	Lynda Taylor	Complete
	Lack of melanoma patient support in the Borders to remain 'open' in the SCAN skin group risk register	Megan Mowbray	ongoing

Cutaneous Melanoma QPI Attainment 2018-19	<b>)</b> Tar	get %		Bord	ers		D&	G		Fife	e		Loth	nian		SC	AN
QPI 1: Excision Biopsy. patients should have their diagnostic excision biopsy carried out by a	Excision biopsy	90	N D	24 25	96.0%	N D	19 23	82.6%	N D	57 59	96.6%	N D	93 140	66.4%	N D	193 247	78.1%
skin cancer clinician	Partial biopsy	90	N D	6 6	100%	N D	6 12	50.0%	N D	13 15	86.7%	N D	18 26	69.2%	N D	43 59	72.9%
QPI 2: Pathology Reporting. Surgical pathology r melanoma should contain full pathology informat		90	N D	25 25	100%	N D	19 25	76.0%	N D	58 60	96.7%	N D	139 143	97.2%	N D	241 253	95.3%
QPI 3: Multi-Disciplinary Team Meeting (MDT). P discussed prior to definitive treatment	atients should be	95	N D	29 31	93.5%	N D	27 35	77.1%	N D	68 73	93.2%	N D	150 163	89.6%	N D	273 306	89.2%
QPI 4: Clinical Examination of Draining Lymph N clinical staging	odes as part of	95	N D	29 31	90.5%	N D	36 37	97.3%	N D	73 74	98.6%	N D	163 168	97%	N D	300 310	96.8%
QPI 5: Sentinel Node Biopsy Pathology. Reports pathology information	should contain full	90	N D	5 5	100%	N D	10 11	90.9%	N D	7 7	100%	N D	32 32	100%	N D	54 55	98.2%
QPI 6: Wide Local Excisions to reduce the risk of	local recurrence	95	N D	29 31	93.5%	N D	31 34	91.2%	N D	67 73	91.8%	N D	144 163	88.3%	N D	271 301	90.0%
QPI 7 Time to Wide Local Excision. WLE within	Excision biopsy	95	N D	12 25	48.0%	N D	15 23	65.2%	N D	50 59	84.7%	N D	76 138	55.1%	N D	153 245	62.4%
84 days of diagnostic Biopsy	Partial biopsy	95	N D	5 6	83.3%	N D	6 12	50%	N D	11 15	73.3%	N D	15 26	57.7%	N D	37 59	62.7%
QPI 8: BRAF Status. Patients with unresectable s	stage III or IV	75	N D	0 0	NA	N D	4 5	80.0%	N D	2 2	100%	N D	2 2	100%	N D	8 9	88.9%
QPI 9: Imaging in Advanced Melanoma. CTPET/ of diagnosis (stage IIC, III or IV melanoma)	CT within 35 days	95	N D	0 3	0%	N D	4 8	50.0%	N D	3 10	30.0%	N D	3 19	15.8%	N D	10 40	25.0%
QPI 10: Systemic Therapy. Patients with unresed melanoma should receive Systemic Anti Cancer		60	N D	0 0	NA	N D	3 4	75.0%	N D	0 2	0.0%	N D	2 2	100%	N D	5 8	62.5%
QPI 12:Adequate excision of lesion prior to defini clinical margins of 2mm prior to WLE)	tive treatment (with	85	N D	19 28	67.9%	N D	3 31	9.7%	N D	33 67	49.3%	N D	86 143	60.1%	N D	141 269	52.0%
Clinical trials N= patients consented to a trial on 3 (EDGE). D= 5 year average from Cancer Registr		15	N D	0 38	0.0%	N D	0 36	0.0%	N D	1 68	1.5%	N D	4 185	2.2%	N D	5 327	1.5%

# INTRODUCTION AND METHODS

#### Cohort

This report covers patients newly diagnosed with Cutaneous Melanoma in SCAN between 01/07/2018 and 30/06/2019. The results contained within this report have been presented by NHS board of diagnosis.

#### **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.

Accompanying datasets and measurability criteria for QPIs are published on the ISD website. NHS boards are required to report against QPIs as part of a mandatory, publicly reported, programme at a national level.

- •										
QPI Title:	Short title of Qua	Short title of Quality Performance Indicator (for use in reports etc.)								
Description:	Full and clear de	ull and clear description of the Quality Performance Indicator.								
Rationale and Evidence:	Description of th indicator.	escription of the evidence base and rationale which underpins this indicator.								
	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.								
Specifications:	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	e level of performance to be achieved.								

#### The standard QPI format is shown below:

## **QPI** Formal review

The three year formal review for Melanoma documents have been published on the ISD and Healthcare Improvement Scotland websites, linked here. http://www.isdscotland.org/Health-Topics/Cancer/Cancer-Audit/

http://www.healthcareimprovementscotland.org/our\_work/cancer\_care\_improvement/cancer\_ gpis/quality\_performance\_indicators.aspx

#### **Summary of Changes**

(NB: Non Cutaneous cases are no longer included in the QPI audit)

QPI1 separated into two specifications: diagnostic excision biopsy diagnostic partial biopsy QPI2 No change to QPI. (remove need for macroscopic info) QPI3 No change to QPI QPI4 No change to QPI (remove statement within definition specifying 'after diagnosis') QPI5 No change to QPI (remove need for macroscopic info) QPI6 Combine two part QPI into one QPI7 No change to QPIs QPI8 No change to QPI QPI9 QPI changed to include stage IIC patients and introduced target within 35 days of diagnosis QPI10 No change to QPI **QPI11** Archived QPI12 New QPI (clinical excision margins) (first report will commence Year 5) QPI13 – Revised clinical trials presentation format

#### Reporting in Year 5

QPI report figures for 2018-2019 reflect all agreed QPI changes including the new QPI 12 which was not possible to report in year 4.

#### Audit Process

Data was analysed by the audit facilitators in each NHS board according to the measurability document provided by ISD. SCAN data was collated by Lorna Bruce, SCAN Cancer Audit Manager.

Data capture is focused round the process for the fortnightly multidisciplinary meetings ensuring that data covering patient referral, investigation and diagnosis is being picked up through the routine process.

Each of the 5 hospitals provides diagnostic and wider surgery but more serious disease requiring skin grafting and/or Lymph Node biopsy is provided by plastic surgery services in St Johns or Western General hospitals for Lothian patients, and Ninewells for Fife patients.

The process remains dependent on audit staff for capture and entry of data, and for data quality checking

Data was recorded on eCase and reported through SSRS the eCase reporting tool. Due to SSRS permissions problems, Lothian and Borders data was analysed using an MS Access database. Fife and D&G data were analysed using SSRS.

SCAN Region	Hospital	Lead Clinician	Audit Support
NHS Borders	Borders General Hospital	Dr Andrew MacKenzie	Jon Pullman / Maria D'Aria
NHS Dumfries & Galloway	Dumfries & Galloway Royal Infirmary	Dr Lindsay Yeo	Martin Keith
NHS Fife	Queen Margaret Hospital	Dr Megan Mowbray	Jackie Stevenson
NHS Lothian	Lauriston Building and St Johns Hospital	Mr Mark Butterworth	Jon Pullman /
SCAN	Edinburgh Cancer Centre	Dr Ewan Brown	Maria D'Aria

#### Lead Clinicians and Audit Personnel

# Data Quality

#### **Estimate of 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 (2016-18). High levels of case ascertainment provide confidence in the completeness of the audit recording and contribute to the reliability of results presented. Levels greater than 100% may be attributable to an increase in incidence. Allowance should be made when reviewing results where numbers are small and variation may be due to chance.

**Estimate of case ascertainment:** calculated using the average of the most recent available three years of Cancer Registry Data

	Borders	D&G	Fife	Lothian	SCAN
Cases from Audit	31	37	74	168	310
Cancer Registry 3 Year Average	38	35	71	167	311
Case Ascertainment %	81.6	105	104.2	100.6	99.7

NB: 2 private patients are included in case ascertainment for Lothian but are excluded from Lothian QPI figures and all analysis in this report.

#### **Clinical Sign-Off**

This report compares data from reports prepared for individual hospitals and signed off as accurate following review by the lead clinicians from each service. The collated SCAN results are reviewed jointly by the lead clinicians, to assess variances and provide comments on results:

- Individual health board results were reviewed and signed-off locally.
- Collated results were presented and discussed at the SCAN Melanoma Leads Meeting on November 15th 2019, but D&G results were not available until 20<sup>th</sup> December. Significant problems with eCase data extraction in Lothian caused significant delays and were fixed by the NSS developers late January 2020.
- Final report circulated to SCAN Skin Group and Clinical Governance Framework on 3<sup>rd</sup> April 2020 during the Covid-19 lock down.

#### Actions for Improvement

After final sign off, the process is for the report to be sent to the Clinical Governance groups with action plans for completion at Health Board level. The report is placed on the SCAN website with completed action plans once it has been fully signed-off and checked for any disclosive material.

### QPI Results pages:

# **QPI 1(i): Diagnostic Excision biopsy** Target = 90%

Patients with cutaneous melanoma should have their diagnostic excision biopsy carried out by a skin cancer clinician

A skin cancer clinician can be defined as a: Dermatologist, Plastic Surgeon, Oral and Maxillofacial Surgeon, A locally designated clinician with a special interest in skin cancer, who is also a member (or under the supervision of a member) of the melanoma MDT

Numerator = All patients with cutaneous melanoma with diagnostic excision biopsies carried out by skin cancer clinician

Denominator = All patients with cutaneous melanoma undergoing diagnostic excision biopsy (no exclusions)

Target 90%	Borders	D&G	Fife	Lothian	SCAN
2018-19 cohort	31	37	74	168	310
Ineligible for this QPI	6	14	15	28	63
Numerator	24	19	57	93	193
Not recorded for numerator	0	0	0	0	0
Denominator	25	23	59	140	247
Not recorded for denominator	0	0	0	0	0
% Performance	96.0	82.6	96.6	66.4	78.1

**Borders**: The target was met. (1 patient had GP excision), GP has been notified of QPI requirement.

**D&G**: The target was not met showing a shortfall of 7.4% (4 patients). All 4 had GP excisions

**Fife:** The target was met. (2 patients had GP excision). GPs have been notified of the QPI requirement.

**Lothian:** The target was not met showing a shortfall of 23.6% (47 cases). 42 were carried out by the external providers, 4 GP excisions and 1 locum excision.

**Comment:** Figures for Lothian reflect the current reliance on third party suppliers, with increasing numbers of biopsies carried out by external clinicians. It is important that patients whose diagnostic excision biopsy is carried out by non NHS Lothian clinicians are represented at the MDM and the new contract with the external providers mandates they attend the MDM to present their patients. Dermatology service management need to provide audit with a list of the new designated clinicians.

**Action:** All Boards to provide updated list of designated Clinicians to SCAN Audit Facilitators.

# **QPI 1(ii): Diagnostic Partial biopsy** Target = 90%

Patients with cutaneous melanoma should have their diagnostic partial biopsy carried out by a skin cancer clinician

Numerator = All patients with cutaneous melanoma with diagnostic partial biopsies carried out by skin cancer clinician

Denominator = All patients with cutaneous melanoma undergoing diagnostic partial biopsy (no exclusions)

Target 90%	Borders	D&G	Fife	Lothian	SCAN
2018-19 cohort	31	37	74	168	310
Ineligible for this QPI	25	25	59	142	251
	r – – – – –				
Numerator	6	6	13	18	43
Not recorded for numerator	0	0	0	0	0
Denominator	6	12	15	26	59
	-		-		
Not recorded for denominator	0	0	0	0	0
% Performance	100.0	50	86.7	69.2	72.9

**D&G**: The target was not met showing a shortfall of 40% (6 cases). All 6 had GP excisions.

**Fife:** The target was not met showing a shortfall of 3.3% (2 cases). Both had GP excisions. GPs have been notified of the QPI requirement.

**Lothian:** The target was not met showing a shortfall of 8 cases. 1 was a GP excision. The remaining 7 received their partial excisions within third party supplier clinics.

**Comment:** As in QPI 1i) figures for Lothian reflect the current reliance on third party suppliers, with increasing numbers of biopsies carried out by external clinicians. It is important that patients whose diagnostic excision biopsy is carried out by non NHS Lothian clinicians are represented at the MDM and the new contract with the external providers mandates they attend the MDM to present their patients. Dermatology service management need to provide audit with a list of the new designated clinicians.

**Action:** All Boards to provide updated list of designated Clinicians to SCAN Audit Facilitators.

# **QPI 2: Pathology reporting** Target = 90%

Surgical pathology reports for patients with cutaneous melanoma should contain full pathology information to inform treatment decision making.

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)

Denominator = All patients with cutaneous melanoma undergoing diagnostic excision biopsy (no exclusions)

Target 90%	Borders	D&G	Fife	Lothian	SCAN
2018-19 cohort	31	37	74	168	310
Ineligible for this QPI	6	12	14	25	57
	-		-		
Numerator	25	19	58	139	241
Not recorded for numerator	0	0	0	0	0
Denominator	25	25	60	143	253
Not recorded for denominator	0	0	0	0	0
% Performance	100.0	76.0	96.7	97.2	95.3

**D&G**: The target was not met, showing a shortfall of 26% (6 cases). 2 reports had no mention of in situ margins, 1 was missing mitotic rate,1 was missing perineural invasion and histological subtype, 1 was missing ulceration, 1 was missing tumour infiltrating lymphocytes.

It is noted that results for this QPI have improved year on year.

# **QPI 3: Multi-Disciplinary Team Meeting (MDT)** Target = 95%

Patients with cutaneous melanoma should be discussed by a multi-disciplinary team prior to definitive treatment

Numerator = All patients with cutaneous melanoma discussed at the MDT before definitive treatment (wide local excision, chemotherapy /SACT, supportive care and radiotherapy).

Denominator = All patients with cutaneous melanoma (excluding patients who died before treatment)

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2018-19 cohort	31	37	74	168	310
Ineligible for this QPI	0	1	0	0	2
Exclusions	0	1	1	1	4
Numerator	28	27	68	150	273
Not recorded for numerator	0	0	0	0	0
Denominator	31	35	73	167	306
Not recorded for exclusions	0	0	0	0	0
Not recorded for denominator	0	0	0	0	0
% Performance	90.3	77.1	93.2	89.8	89.2

Exclusions = died before treatment

#### Comments

**Borders**: The target was not met showing a shortfall 4.7% (3 cases): All 3 were AJCC stage IA and treated appropriately.

**D&G**: The target was not met, showing a shortfall of 18.5% (8 cases). 5 patients were discussed post WLE all stage T1a, 1 declined WLE, 2 were not discussed with no identified reason.

**Fife:** The target was not met showing a shortfall of 1.8% (5 cases). All 5 patients were stage IA. 2 had WLE performed in house prior to MDM. 2 declined further treatment and 1 was recorded at MDM retrospectively, originally thought to have intransit met rather than 2nd primary.

**Lothian:** The target was not met showing a shortfall of 5.4% (17 cases). All 17 were discussed after treatment, although discussed late, all were treated appropriately and no action was identified.

3 were documented in clinic letters as stage IA (but one of these was actually IB) 6 were pT1a but had no AJCC documented.

3 patients (pT1b) – pathology delays.

4 patients (3 pT4b, 1 pT2b) – MDM recommended observation rather than WLE because of comorbidities (so definitive treatment defaults back to excision biopsy and patient is not included in numerator).

1 pT3a – seen by breast team, then Dr Kavanagh, mets at presentation,

immunotherapy October, but not discussed at MDM till December.

(4 patients were awaiting treatment at time of reporting, but had been discussed at MDM so are included in the numerator.)

**Action:** AJCC needs to be documented on MDM referral forms and highlighted at the MDM.

# **QPI 4: Clinical Examination of Draining Lymph Node Basin** Target = 95%

Patients with cutaneous melanoma should undergo clinical examination of relevant draining lymph node basins as part of clinical staging.

Numerator = All patients with cutaneous melanoma who undergo clinical examination of relevant draining lymph node basins as part of clinical staging

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2018-19 cohort	31	37	74	168	310
Ineligible for this QPI	0	0	0	0	0
				1	
Numerator	29	36	73	163	300
Not recorded for numerator	0	0	1	0	1
Denominator	31	37	74	168	310
			1	1	
Not recorded for denominator	0	0	0	0	0
% Performance	93.5	97.3	98.6	97.0	96.8

Denominator = All patients with cutaneous melanoma (no exclusions)

#### Comments

**Borders**: The target was not met, showing a shortfall of 1.5% (2 cases). The overlay stamp was not used by a clinician who has since left NHS Borders, so no action is possible.

The target was met in all other Health Boards.

**Comment:** This is an excellent result and reflects much improved documentation by clinicians.

# **QPI 5: Sentinel Node Biopsy Pathology** Target = 90%

Sentinel node biopsy (SNB) reports for patients with cutaneous melanoma should contain full pathology information to inform treatment decision making

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)

Denominator = All patients with cutaneous melanoma who undergo SLNB (No exclusions)

Target 90%	Borders	D&G	Fife	Lothian	SCAN
2018-19 cohort	31	37	74	168	310
Ineligible for this QPI	26	26	67	136	255
	r				
Numerator	5	10	7	32	54
Not recorded for numerator	0	0	0	0	0
Denominator	5	11	7	32	55
Not recorded for denominator	0	0	0	3	3
% Performance	100.0	90.9	100.0	100.0	98.2

#### Comments

The target was met in all Health Boards.

# **QPI 6: Wide Local Excisions** Target = 95%

Patients with cutaneous melanoma should undergo a wide local excision of the initial diagnostic excision or partial biopsy site to reduce the risk of local recurrence.

Numerator = All patients with cutaneous melanoma undergoing diagnostic excision or partial biopsy who undergo a wide local excision

Denominator = All patients with cutaneous melanoma who undergo diagnostic biopsy

Exclusions = died before treatment

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2018-19 cohort	31	37	74	168	310
Ineligible for this QPI	0	2	0	0	2
Exclusions	0	1	1	2	4
Numerator	29	31	67	144	271
Not recorded for numerator	0	0	0	0	0
Denominator	31	34	73	163	301
	1				
Not recorded for exclusions	0	0	0	0	0
Not recorded for denominator	0	0	0	3	
% Performance	93.5	91.2	91.8	88.3	90.0

Reasons for not meeting the QPI	Borders	D&G	Fife	Lothian	SCAN
Excision margins deemed acceptable	0	1	0	1	2
Disease progression	0	0	3	3	6
Co-morbidities	0	1	1	5	7
Delicate area/watch and wait	0	0	1	2	3
Declined further treatment	2	1	1	7	11
Other/awaiting treatment	0	0	0	1	1
Totals	2	3	6	19	30

**Borders:** The target was not met with a shortfall of 2.5% (2 cases). Both patients declined further treatment.

**D&G**: The target was not met, showing a shortfall of 3.8% (3 cases). 1 had comorbidities/advanced disease at presentation, 1 declined WLE and 1 patient had no WLE due to anatomical site

**Fife:** The target was not met with a shortfall of 3.2% (6 cases). 1 patient had no WLE due to co-morbidities. 3 patients had disease progression (mets at time of primary diagnosis). 1 patient declined WLE. 1 patient had no WLE due to anatomical site and MDM discussion agreed not feasible.

**Lothian:** The target was not met with a shortfall of 7.2% (19 cases). 7 patients declined treatment. 5 had comorbidities. 3 had disease progression, 2 were for observation, 1 had sufficient margin and 1 had re-excision.

**SCAN:** All outliers included table above. Although the 5% tolerance includes patient choice, there were 11 patients who declined WLE, this equates to 4.1% of the SCAN cohort.

Action: Keep a note of numbers of patients who decline treatment in order to inform next formal review of the QPI.

# **QPI 7i: Wide Local Excision within 84 days (Excision biopsy)** Target = 95%

Patients with cutaneous melanoma should have their wide local excision within 84 days of their diagnostic excision biopsy

Numerator = All patients undergoing wide local excision within 84 days of their diagnostic excision biopsy

Denominator = All patients with cutaneous melanoma undergoing diagnostic excision biopsy

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2018-19 cohort	31	37	74	168	310
Ineligible for this QPI	6	14	15	30	64
	1			1	
Numerator	12	15	50	76	153
Not recorded for numerator	0	0	0	0	0
Denominator	25	23	59	138	245
Not recorded for denominator	0	0	0	0	0
% Performance	48.0	65.2	84.7	55.1	62.4

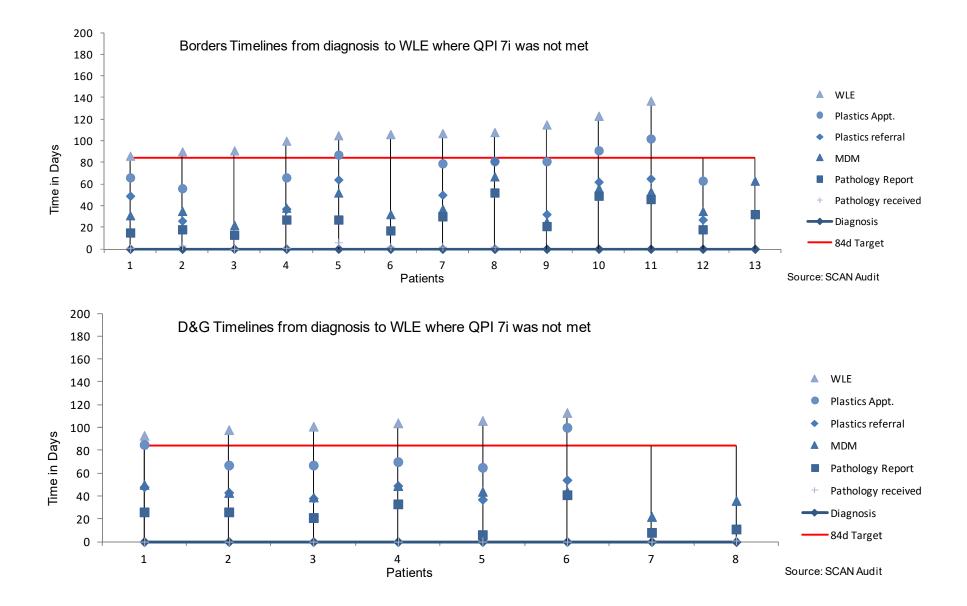
**Borders:** The target was not met with a shortfall of 47% (13 cases). 2 declined further treatment and 1 had delayed treatment.

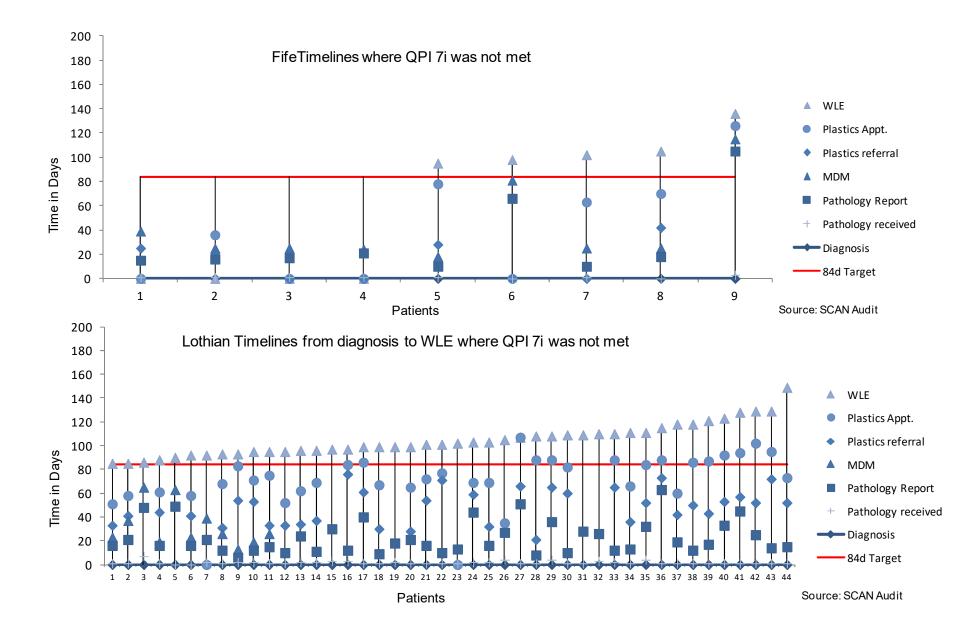
**D&G**: The target was not met with a shortfall of 23.6% (8 cases). No actionable delays were identified on review.

**Fife:** The target was not met with a shortfall of 10.3% (9 cases). 2 patients required a pathology second opinion, 3 were patient induced delays. 4 had no WLE performed - due to disease progression and further treatment was not suitable or was declined

**Lothian:** The target was not met with a shortfall of 38.9% (62 cases). 7 declined further treatment. Pathway requires to be reviewed.

Action: SCAN patient pathways require to be reviewed.





# QPI 7ii): Wide Local Excision within 84 days (partial biopsy) Target = 95%

Patients with cutaneous melanoma should have their wide local excision within 84 days of their partial biopsy

Numerator = All patients with cutaneous melanoma undergoing wide local excision within 84 days of their diagnostic partial biopsy

Denominator = All patients with cutaneous melanoma who undergo diagnostic partial biopsy (No Exclusions)

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2018-19 cohort	31	37	74	168	310
Ineligible for this QPI	25	25	59	142	252
Numerator	5	6	11	15	37
Not recorded for numerator	0	0	0	0	0
Denominator	6	12	15	26	59
Not recorded for denominator	0	0	0	0	0
% Performance	83.3	50.0	73.3	57.7	62.7

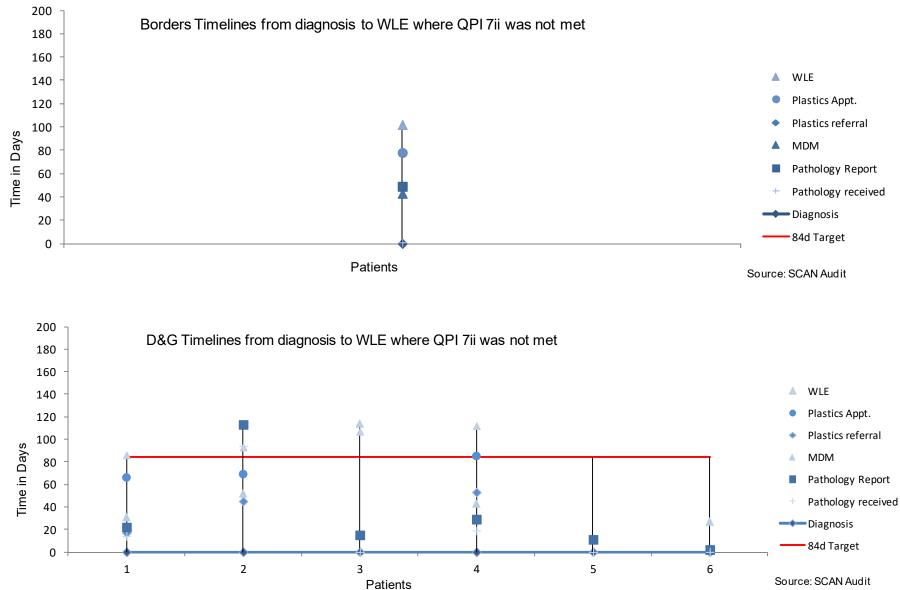
**Borders:** The target was not met showing a shortfall of 11.7% (1 case). 102 days between punch biopsy and WLE.

**D&G**: The target was not met with a shortfall of 23.6% (6 cases). No actionable delays were identified on review.

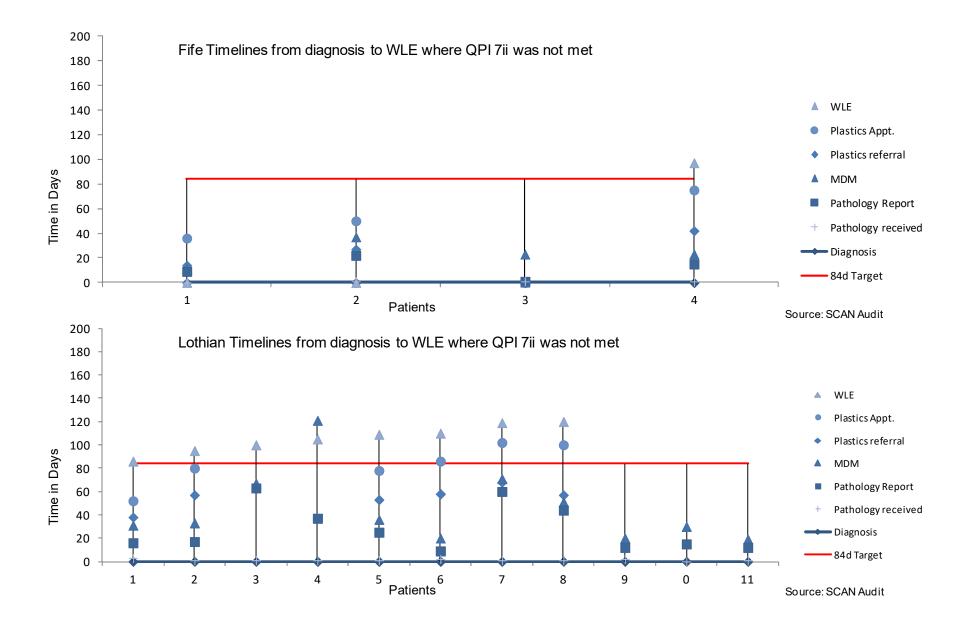
**Fife:** The target was not met with a shortfall of 21.7%(4 cases). 3 had no WLE performed. 1 was delayed through Dermatology & Plastics capacity issue.

**Lothian:** The target was not met with a shortfall of 37.3% (11 cases). 3 had no WLE and 8 had WLE >84d after biopsy (median 107, range 86-120).

Action: SCAN patient pathways require to be reviewed.



#### Timelines where QPI 7ii was not met



# **QPI 8: B-RAF Status** Target = 75%

Patients with unresectable stage III or IV cutaneous melanoma should have their BRAF status checked.

Numerator = All patients with unresectable stage III or IV cutaneous melanoma who have their BRAF status checked

Denominator = All patients with unresectable stage III or IV cutaneous melanoma (No exclusions)

Target 75%	Borders	D&G	Fife	Lothian	SCAN
2018-19 cohort	31	37	74	168	310
Ineligible for this QPI	NR	32	72	NR	104
Numerator	0	4	2	2	8
Not recorded for numerator	0	0	0	0	0
Denominator	0	5	2	2	9
Not recorded for denominator	0	0	0	3	3
% Performance	NA	80.0	100.0	100.0	88.9

#### **Comments:**

The target was met in all Boards. There were no eligible patients in BGH

Not recorded AJCC in Lothian probably affects numbers in this QPI:

In Lothian 5 patients were recorded as having unresectable tumour, (3 had no AJCC recorded) 4 of the 5 had BRAF checked and 1 (pT3b) did not.

Action: AJCC needs to be documented on MDM referral forms and highlighted at the MDM.

# **QPI 9: Imaging for Patients with Advanced Melanoma** Target = 95%

Patients with stage IIC, III or IV cutaneous melanoma should be evaluated with appropriate imaging within 35 days of diagnosis to guide treatment decision making

Numerator = All patients with stage IIC and above who undergo CT or PET CT within 35 days of diagnosis.

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2018-19 cohort	31	37	74	168	310
Ineligible for this QPI	NR	27	64	NR	NR
	-		-		
Numerator	0	4	3	3	10
Not recorded for numerator	0	0	0	0	0
Denominator	3	8	10	19	40
Not recorded for denominator	12	2	0	88	102
% Performance	0.0	50.0	30.0	15.8	25.0

Denominator = All patients with stage IIC or above (No exclusions).

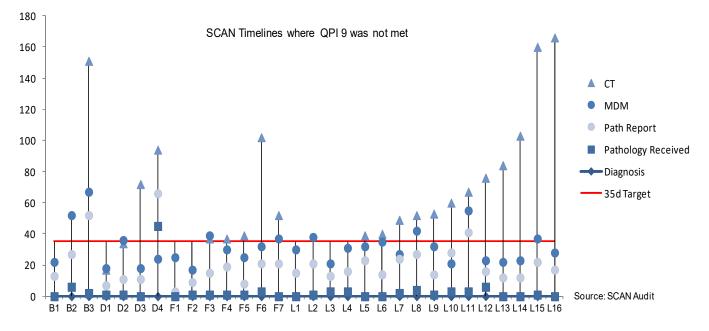
**Borders:** 3 cases. 2 cases where no CT was performed (1 patient declined investigations and 1 was not done as recommended by MDM),1 case with 151 days between diagnosis and CT and was a complicated case.

**D&G:** In 4 cases, patients had imaging outwith the 35 days, 1 of these had pre-diagnostic imaging that was not repeated until 3 months post initial CT.

**Fife:** 7 cases; 2 patients didn't have a CT due to comorbidities. 1 patient was upstaged following WLE as found to be high risk with ulceration. (measurement taken from WLE and not incisional biopsy reduces wait from 140 - 52 days). 1 patient upstaged as satellite/in transit mets present at excision not initially noted. 3 had no delay reason identified

**Lothian:** 4 patients had no CT: 3 due to comorbidities and 1 declined further investigations, 12 had CT>35d (median 64d range 39-166). Note the large numbers of not recorded for denominator (stage)

**Action:** AJCC needs to be documented on MDM referral forms and highlighted at the MDM. Review dates of CT requests in cases of >35 days from diagnosis to CT date.



Timelines for SCAN where QPI 9 was not met (CT > 35 days or no CT)

# **QPI 10: Systemic Therapy** Target = 60%

Patients with unresectable stage III and IV cutaneous melanoma should receive Systemic Anti Cancer Therapy (SACT)

Numerator = All patients with unresectable stage III or IV cutaneous melanoma who undergo SACT

Denominator = All patients with unresectable stage III or IV cutaneous melanoma

Target 60%	Borders	D&G	Fife	Lothian	SCAN
2018-19 cohort	31	37	74	168	310
Ineligible for this QPI	NR	32	72	NR	NR
Exclusions (died before treatment)		0	0		0
	-				
Numerator	0	3	0	2	5
Not recorded for numerator	0	0	0	0	0
Denominator	0	4	2	2	8
Not recorded for denominator	0	0	0	2	2
% Performance	NA	75.0	0.0	100.0	62.5

**Comments:** In Lothian there were a further 2 patients documented as having unresectable disease but could not be included in this QPI as there were no AJCC stages recorded for them. 1 had targeted therapy and 1 had no SACT.

Allowances should be made where small numbers and variation may be due to chance. Aggregation of results over time may be useful, in future years, to clarify results where numbers are small.

**Action:** AJCC needs to be documented on MDM referral forms and highlighted at the MDM.

# **QPI 12: Adequate excision of lesion** Target = 85%

Proportion of patients with cutaneous melanoma where complete excision is undertaken with documented clinical margins of 2mm prior to definitive treatment (wide local excision).

Numerator = Number of patients with cutaneous melanoma where complete excision is undertaken with documented clinical margins of 2mm prior to definitive treatment (wide local excision).

Denominator = All patients with cutaneous melanoma who undergo wide local excision. (No exclusions).

Target 85%	Borders	D&G	Fife	Lothian	SCAN
2018-19 cohort	31	37	74	168	273
Ineligible for this QPI	3	6	7	25	7
Numerator	19	3	33	86	141
Not recorded for numerator	3	0	19	16	38
Denominator	28	31	67	143	269
Not recorded for denominator	0	0	0	3	3
% Performance	67.9	9.7	49.3	60.1	52.4

#### Comments:

**Borders:** The target was not met showing a shortfall of 17.1% (9 cases). 3 had no margin recorded (1 was an excision of nodule within larger atypically pigmented patch). 5 had a partial biopsy which was not followed by excision biopsy before WLE and 1 had a margin >2mm prior to WLE following an excision to treat clinical BCC.

**D&G:** The clinical margin is recorded on the pathology request card which is not available to audit staff currently.

**Fife:** The target was not met showing a shortfall of 35.7% (34 cases). 12 patients had a partial biopsy with no excision prior to WLE. 19 patients had an excision biopsy where the clinical margin was not recorded. 3 patients had an excision biopsy with a clinical margin of 1 or 3 mm

**Lothian:** The target was not met showing a shortfall of 24.9% (57 cases). 4 had margins <2mm, 17 had margins >2mm, 20 had partial biopsy with no excision prior to WLE (one of whom had a further partial biopsy and one had an FNA prior to WLE). 16 patients had excision prior to WLE but had no margin size recorded.

**Action:** All Boards need to ensure that surgeons are aware of the QPI requirements and that margin sizes are clearly documented on operation notes at time of excisional biopsy.

# Clinical Trials QPI Target = 15%

Proportion of patients diagnosed with Melanoma who were consented for a clinical trial

Numerator Number of patients with Melanoma consented for a clinical trial

**Denominator** All patients with Melanoma - Average 5 year incidence from Cancer Registry (2014-2018)

Target 15%	Borders	D&G	Fife	Lothian	SCAN
Numerator	0	0	1	4	5
Denominator	38	36	68	185	327
% Performance	0.0	0.0	1.5	2.2	1.5

#### Trials Registered on SCRN database

Clinical Trials in 2018	Numbers
INTERIM - Intermittent v continuous BRAF/MEK inhibitor in met melanoma	4
CO39722 - Cobimetinib and atezolizumab v's pembrolizumab in melanoma	1

#### **Cancer Registry Figures**

Year	Borders	D&G	Fife	Lothian	SCAN
2014	37	48	49	204	338
2015	39	28	80	218	365
2016	35	38	71	175	319
2017	38	31	63	165	297
2018	40	35	79	161	315
5yr average	38	36	68	185	327

#### Comment

Patients being consented for melanoma trials are always small numbers because it's currently a small subset of metastatic patients that are being offered trials. There were no missed opportunities.

## Non QPI Results

Male	Bord	ders	D8	kG	F	ife	Loth	lian	SC	CAN
Age	n	%	n	%	n	%	n	%	n	%
0-14	0	0	0	0	0	0	0	0	0	0
15-24	1	5.0	0	0.0	0	0.0	0	0.0	1	0.6
25-34	0	0.0	1	4.8	0	0.0	1	1.3	2	1.2
35-44	0	0.0	0	0.0	3	7.1	2	2.6	5	3.1
45-54	1	5.0	4	19.0	6	14.3	13	16.7	24	14.9
55-64	3	15.0	4	19.0	4	9.5	14	17.9	25	15.5
65-74	4	20.0	6	28.6	13	31.0	24	30.8	47	29.2
75-84	8	40.0	5	23.8	12	28.6	20	25.6	45	28.0
85+	3	15.0	1	4.8	4	9.5	4	5.1	12	7.5
Total	20	100.0	21	100.0	42	100.0	78	100.0	161	100.0

#### Table 1: Age at Presentation

Female	Bor	ders	D٤	kG	F	ife	Loth	nian	SC	CAN
Age	n	%	n	%	n	%	n	%	n	%
0-14	0	0	0	0	0	0	0	0	0	0
15-24	0	0.0	0	0.0	1	3.1	0	0.0	1	0.7
25-34	0	0.0	2	12.5	1	3.1	9	10.0	12	8.1
35-44	0	0.0	1	6.3	3	9.4	7	7.8	11	7.4
45-54	1	9.1	0	0.0	7	21.9	14	15.6	22	14.8
55-64	4	36.4	3	18.8	7	21.9	21	23.3	35	23.5
65-74	5	45.5	4	25.0	4	12.5	18	20.0	31	20.8
75-84	0	0.0	5	31.3	4	12.5	13	14.4	22	14.8
85+	1	9.1	1	6.3	5	15.6	8	8.9	15	10.1
Total	11	100.0	16	100.0	32	100.0	90	100.0	149	100.0

# Table 1a: Incidence in Working Age Population (18 to 64)

	Bore	Borders		D&G		Fife		Lothian		SCAN	
	n	%	n	%	n	%	n	%	n	%	
2018-19	10	32.3	15	40.5	32	43.2	81	48.2	138	44.5	
2017-18	10	25.6	11	30.6	37	53.6	92	50.8	150	46.4	
2016-17	11	37.9	8	25.0	23	38.3	91	50.3	133	44.0	
2015-16	20	55.6	11	47.8	40	54.0	98	48.8	169	50.6	
2014-15	12	34.2	15	32.6	21	36.8	95	47.5	143	42.3	

# Table 1b: Incidence in Working Age Population Year on Year (18 to 64)

Year	Number of working age people	% of Total
2018-19	138	44.5
2017-18	150	46.4
2016-17	133	44.0
2015-16	169	50.6
2014-15	143	42.3
2013	135	45.3
2012	155	48.6
2011	156	51.5

## Table 1c: Median age at Diagnosis

	Borders		D&G		F	ife	Lothian		
	Male Female		Male Female		Male	Female	Male	Female	
2018-19	77	66	66	69	73	62	69	61	
2017-18	73.5	76	76	65	69	58	69	61	
2016-17	62	71	76	67	69	67	66	62	
2015-16	66	59	69.5	61	65	61	69	61	

# Table 1d: Median age at Diagnosis Year on Year

Year	Male	Female	Area Covered
2018-19	71	63	SCAN
2017-18	69	58	SCAN
2016-17	68	65.5	SCAN
2015-16	68	61	SCAN
2014-15	71	66	SCAN
2013	68.5	63.5	SCAN
2012	66	66	BFL
2011	65	61	BFL
2010	65	54	BL
2009	64	53	BL
2008	64	56	BFL
2007	64	55	BFL

# Table 1e: Gender Incidence Ratio

Year	Male	Female
2017-18	1	1.0
2016-17	1	0.9
2015-16	1	1.1
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

	SCAN 2018-19				SCAN 01/2012 - 06/2017			2017
Site	Male		Female		Male		Female	
	n	%	n	%	n	%	n	%
Head and Neck	39	24.2	25	16.8	224	28.6	157	19.0
Trunk anterior	23	14.3	8	5.4	90	11.5	54	6.5
Trunk Posterior	47	29.2	26	17.4	204	26.0	124	15.0
Arm	1	0.6	6	4.0	15	1.9	15	1.8
Arm above elbow	12	7.5	17	11.4	65	8.3	113	13.7
Arm below elbow	14	8.7	18	12.1	57	7.3	67	8.1
Leg	1	0.6	1	0.7	7	0.9	15	1.8
Leg above knee	5	3.1	16	10.7	33	4.2	69	8.3
Leg below knee	7	4.3	23	15.4	47	6.0	167	20.2
Acral	7	4.3	9	6.0	13	1.7	22	2.7
Mucosal	0	0.0	0	0.0	5	0.6	7	.8
Subungual	3	1.9	0	0.0	4	0.5	3	.4
Mets at Presentation	2	1.2	0	0.0	20	2.6	14	1.7
SCAN	161	100.0	149	100.0	784	100	827	100.0

Top 3 anatomical sites 2018-19							
Male         Trunk Posterior         Head and Neck         Trunk anterio							
Female	Trunk Posterior	Head and Neck	Leg below knee				

	Top 3 anatomical sites 2017-18							
MaleHead and Neck (28.8%)Trunk Posterior (26.9%)Trunk anterior (11.3%)								
Female	Head and Neck (20.9%)	Leg below Knee (19.6%)	Arm above elbow (17.2%)					

	Top 3 anatomical sites 2016-17												
Male	Trunk Posterior (27.8%)	Head and Neck (24.7%)	Trunk anterior/ Arm above elbow (8.9%)										
Female	Leg below Knee (28.5%)	Arm above elbow (16.7%)	Head and Neck/ Leg above knee (12.5%)										

	Тор	3 anatomical sites 2015-16	
Male	Head and Neck	Trunk Posterior	Trunk anterior
	(28.5%)	(25.8%)	(11.5%)
Female	Leg below Knee	Head and Neck	Trunk Posterior
	(20.2%)	(18.5%)	(14.9%)

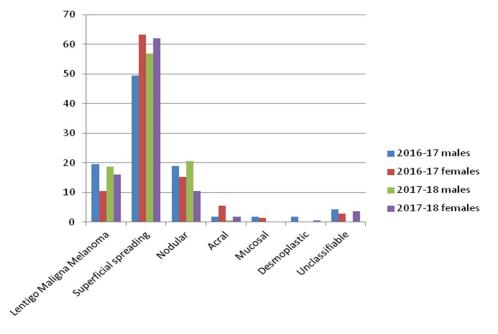
		SCAN 2	018-19		
Histogenetic Type	Ма	ale	Female		
	n	%	n	%	
Lentigo maligna melanoma	25	15.5	21	13.9	
Superficial spreading	91	56.5	85	56.3	
Nodular	24	14.9	27	17.9	
Acral	7	4.3	6	4.0	
Mucosal	0	0.0	0	0.0	
Desmoplastic	2	1.2	2	1.3	
Mixed (desmopastic)	0	0.0	0	0.0	
not assessable	1	0.6	3	2.0	
Unclassifiable (Melanoma NOS)	7	4.3	4	2.6	
Spitzoid	0	0.0	0	0.0	
Other*	4	2.5	3	2.0	
secondary MM	0	0.0	0	0.0	
TOTAL	161	100	151	100	

#### Table 3b: Unclassifiables by board

	Bord	ers	D	& G	F	ife	Lothian		
Year	n	%	n	%	n	%	n	%	
2018-19	0	-	6	16.2	1	1.4	0	-	
2017-18	0	-	2	5.6	1	1.4	3	1.7	
2016-17	1	3.4	2	6.3	3	5.0	5	2.8	

### Table 3c: Histogenetic Type – year on year

Histogenetic Type	20	2013		2014-15		2015-16		2016-17		2017-18		3-19
	m	f	m	f	m	m	m	f	m	f	m	f
Lentigo maligna melanoma	20	21	30	2	3	30	31	15	30	26	25	21
Superficial spreading	79	91	95	9	8	91	78	91	91	101	91	85
Nodular	22	10	11	1	2	33	30	22	33	17	24	27
Acral	7	7	1	2	2	1	3	8	1	3	7	6
Mucosal	0	0	0	0	1	0	3	2	0	0	0	0
Desmoplastic	1	2	3	1	2	0	3	0	0	1	2	2



	Bor	Borders		D&G		Fife		Lothian		SCAN			
	n	%	n	%	n	%	n	%	n	%			
Sample biopsy*	6	19.4	12	32.4	15	20.0	26	15.5	59	19.0			
Excision/Amputation	25	80.6	24	64.9	59	78.7	141	83.9	249	80.1			
FNA	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0			
Other	0	0.0	1	2.7	1	1.3	1	0.6	3	1.0			
Not known/Inapplicable	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0			
Total	31	100	37	100	75	100	168	100	311	100			

#### Table 4a: Method of diagnosis

\*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.

#### Table 4b: Sample biopsy Year on Year

		ders	C	D&G		Fife		thian	SC	AN
	n	%	n	%	n	%	n	%	n	%
2018-19	6	19.4	12	32.4	15	20.0	26	15.5	59	19.0
2017-18	12	32.4	12	33.3	11	15.9	37	20.4	72	28.5
2016-17	13	44.9	8	25.0	10	16.7	30	16.6	61	20.2
2015-16	5	13.9	6	26.1	14	18.9	35	17.4	60	18.0
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

#### Table 5a: Pathology: Time from diagnosis to issue of Pathology report

Time interval in days	Bor	Borders		D&G		Fife		hian	SCAN		
	n	%	n	%	n	%	n	%	n	%	
0 -14	7	21.2	28	75.7	39	68.4	72	39.8	118	40.4	
15-28	18	54.5	6	16.2	30	52.6	64	35.4	112	38.4	
>28	6	18.2	3	8.1	6	0.0	32	17.7	44	15.1	
Data n/a	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
Inapplicable	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
Median	2	21		11		14		8		16	
Range	10-	104	0-	0-113		0-105		6-90		0-113	

#### Table 5b: Median Time (days) from diagnosis to Path Report (Year on Year)

Year of Report	Borders and Lothian	D&G	Fife
2017-18	15.5	n/a	13
2016-17	17	n/a	14
2015-16	16	n/a	11
2014-15	15	n/a	8
2013	14	6	10
2012	14	7	9
2011	13	5	8
2010	14	9	7

#### Table 6a: Breslow Depth

Breslow Depth					SCA	N 2018-′	19			
Male	Во	Borders		D&G		Fife		nian	SCAN	
mm	n	%	n	%	n	%	n	%	n	%
0-0.99	9	45.0	4	19.0	22	52.4	27	34.6	62	38.5
1-1.99	3	15.0	6	28.6	4	9.5	15	19.2	28	17.4
2-2.99	5	25.0	4	19.0	4	9.5	7	9.0	20	12.4
3-3.99	1	5.0	0	0.0	3	7.1	11	14.1	15	9.3
≥4	2	10.0	2	9.5	9	21.4	17	21.8	30	18.6
Mets	0	0.0	2	9.5	0	0.0	0	0.0	2	1.2
Unrecorded	0	0.0	3	14.3	0	0.0	1	1.3	4	2.5
Total	20	100.0	21	100.0	42.0	100.0	78	100.0	161	100.0

Breslow Depth					SCA	AN 2018-1	9				
Female	Borders		D&G		F	ife	Lot	hian	SC	SCAN	
mm	n	%	n	%	n	%	n	%	n	%	
0-0.99	5	45.5	7	43.8	17	51.5	46	51.1	75	50.0	
1-1.99	5	45.5	4	25.0	7	21.2	19	21.1	35	23.3	
2-2.99	0	0.0	2	12.5	2	6.1	6	6.7	10	6.7	
3-3.99	0	0.0	1	6.3	3	9.1	6	6.7	10	6.7	
≥4	1	9.1	1	6.3	3	9.1	12	13.3	17	11.3	
Mets	0	0.0	0	0.0	1	3.0	0	0.0	1	0.7	
Unrecorded	0	0.0	1	6.3	0	0.0	1	1.1	2	1.3	
Total	11	100.0	16	100.0	33.0	100.0	90	100.0	150	100.0	

#### Table 6b: Breslow Depth - males (past three cohorts)

Breslow Depth				SC	AN 201	4/15-2017	7/18			
Male	Bo	orders	D&G		Fife		Lothian		SCAN	
mm	n	%	n	%	n	%	n	%	Ν	%
0-0.99	36	49.3	21	35.6	70	50.4	184	48.5	311	47.8
1-1.99	9	12.3	11	18.6	28	20.1	72	19.0	120	18.5
2-2.99	10	13.7	7	11.9	12	8.6	32	8.4	61	9.4
3-3.99	7	9.6	5	8.5	9	6.5	15	4.0	36	5.5
≥4	11	15.1	12	20.3	18	12.9	62	16.4	103	15.8
Mets	0	0.0	1	1.7	0	0.0	7	1.8	8	1.2
Unrecorded	0	0.0	2	3.4	2	1.4	7	1.8	11	1.7
Total	73	100.0	59	100.0	139	100.0	379	100.0	650	100.0

# Table 6c: Breslow Depth - females (past three cohorts)

Breslow Depth				SCAN 2014/15-2017/18										
Female	Bo	orders	D&G		Fife		Lothian		SCAN					
mm	n	%	Ν	%	n	%	n	%	Ν	%				
0-0.99	35	54.7	36	46.2	54	44.6	224	58.3	349	53.9				
1-1.99	6	9.4	21	26.9	27	22.3	70	18.2	124	19.2				
2-2.99	6	9.4	6	7.7	13	10.7	31	8.1	56	8.7				
3-3.99	5	7.8	4	5.1	10	8.3	9	2.3	28	4.3				
≥4	12	18.8	8	10.3	14	11.6	39	10.2	73	11.3				
Mets	0	0.0	0	0.0	2	1.7	9	2.3	11	1.7				
Unrecorded	0	0.0	3	3.8	1	0.8	2	0.5	6	0.9				
Total	64	100.0	78	100.0	121	100.0	384	100.0	647	100.0				

#### Table 7: Pathology - Mitotic Rate

<b>3</b> ,	Borders		D&G		Fife		Lothian		SCAN	
Mitotic rate per mm	n	%	n	%	n	%	n	%	n	%
099	10	32.3	16	43.2	39	52.0	60	35.7	125	40.2
≥1	20	64.5	14	37.8	35	46.7	106	63.1	175	56.3
NR/NA/not assessable	1	3.2	7	18.9	1	1.3	2	1.2	11	3.5
Total	31	100.0	37	100.0	75	100.0	168	100.0	311	100.0

# Table 8: Pathology - Ulceration

	Borders		D&G			Fife		Lothian		SCAN	
	n	%	n	%	n	%	n	%	n	%	
Ulceration	4	12.9	32	86.5	14	18.7	41	24.4	91	29.3	
No Ulceration	26	83.9	1	2.7	60	80.0	125	74.4	212	68.2	
NR/NA/not assessable	1	3.2	4	10.8	1	1.3	2	1.2	8	2.6	
Total	31	100.0	37	100.0	75	100.0	168	100.0	311	100.0	

# Table 9a: Median Wait in days for 2nd stage WLE treatment following diagnosis (Year on Year)

	Borders	D&G	Fife	Lothian	SCAN
Year of Report	days	days	days	days	days
2018-19	76	68	66	71	70
2017-18	62	-	77	53	-
2016-17	69.5	-	65	43	-
2015-16	55	46	74	57	-
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	-

Table 9b: Patient wait > 84 days for 2<sup>nd</sup> stage WLE treatment following diagnosis

	Borders			D&G		Fife	Lothian		
Year of Report	n	% of Total WLE	n	%of Total WLE	n	%of Total WLE	n	%of Total WLE	
2018-19	12	41.4	11	35.5	6	9.0	52	36.1	
2017-18	5	14.3	10	27.8	23	33.3	20	12.4	
2016-17	5	17.9	3	11.5	12	23.0	21	13.0	
2015-16	6	19.4	6	27.3	26	36.6	30	15.4	
2014-15	7	24.1	5	20.8	11	27.5	20	14.1	
2013	5	21.0	6	17.1	11	24.4	13	7.8	

	Borders		D8	<b>k</b> G	F	ife	Lot	hian	SCAN				
	n	% of	n	% of	n	% of	n	% of	n	% of			
	- 11	Total	11	Total	n	Total	n	Total	- 11	Total			
Patients eligible for SLNB	12	38.7	NA*	-	29	39.2	85	50.6	NA	NA			
Patients receiving SLNB	5	16.1	12	32.4	7	9.5	34	20.2	57	18.4			
Patients with +ve SLNB	1	3.2	4	10.8	0	0.0	7	4.2	12	3.9			

### Table 10a: Sentinel Lymph Node Biopsy (SLNB)

\*There is a discrepancy in the D&G figures for this cohort which will be corrected in next year's report

### Table 10b: Patients Eligible for SLNB – Year on Year

	Borders		D	&G	F	ife	Lot	hian	SCAN		
	n	% of Total	n	% of Total	n	% of Total	n	% of Total	n	% of Total	
2018-19	12	38.7	NA	NA	29	39.2	85	50.6	NA	NA	
2017-18	28	75.7	30	83.3	38	55.1	107	59.1	203	62.9	
2016-17	15	51.7	23	79.3	45	75.0	85	47.0	168	55.6	
2015-16	12	33.3	18	78.3	39	52.7	100	49.8	169	50.6	
2014-15	20	57.1	33	71.1	40	70.2	87	43.5	180	61.6	
2013	16	53.3	29	64.4	33	70.2	82	45.3	160	52.3	
2012	20	60.6	13	44.8	40	61.5	83	43.2	156	48.9	

### Table 10c: Sentinel Node Biopsy (SLNB) – Year on Year

	% SLNB Eligible of patient total	No of SLNB carried out of patient total	No of SLNB carried out (% total of eligible)	Positive SLNB no of patient total	Positive % SLNB of total carried out
2018-19	51.6	57	35.6	12	21.0
2017-18	62.9	60	29.6	9	15.0
2016-17	55.6	46	27.4	11	24.0
2015-16	50.6	58	34.3	13	22.4
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

NB: Increasing numbers of SLNB eligible patients reflect changed staging guidelines. Figures above show a significantly reduced % of positives as a result.

Year of Report	SCAN Total	% of total patients	No of Positive	Dissection % Positive
2018-19		Data item no lor	nger collected	
2017-18	10	4.0	6	60.0
2016-17	9	3.3	4	44.4
2015-16	12	3.6	5	41.7
2014-15	11	3.3	5	45.5
2013	19	6.3	11	57.9
2012	16	5.0	5	31.3
2011	20	6.6	8	40.0
2010	17	5.6	4	23.5

Table 11: Lymph Node dissection (Year on Year)

#### Table 12a: contact with Cancer Nurse Specialist (CNS) for Melanoma

	Borders		*D	&G	*	Fife	Lothi Bore	
	n	% of Total	n	% of Total	n	% of Total	n=203	% of Total
Contact	-	NA	-	NA	73	97.3	149	73.4
No contact	-	NA	-	NA	2	2.7	54	26.6
Total	-	NA	-	NA	75	100	203	100

## For guidance: Macmillan levels of intervention for healthcare posts and services are defined as:

**Level 1 – :** Indirect input: No direct involvement with patient/service user and/or carer, general advice via telephone or email, e.g. general dietary advice given over the phone **Level 2 –** Single consultation: Face-to-face/Skype/digital/telephone consultation, usually one off to assess requirements with referring health professional to give basic advice to with patient/service user and/or carer, e.g. one-off appointment following assessment to provide basic advice

**Level 3** – Direct short-term intervention: Face-to-face/Skype/digital/telephone consultations, advice on specific issue(s) and/or extra support for short periods for with patient/service user and/or carer, e.g. therapeutic conversation resulting in care plan

**Level 4** - Long term intervention: long term involvement and/or carer with patient/service user and/or carer for multiple and/or complex issues

# Table 12b: Contact with Cancer Nurse Specialist (CNS) for Melanoma (Year on Year)

	Patient contact % of Total												
Year of report	Borders	D&G	Fife	Lothian	SCAN								
2018-19	n/a	n/a	97.3										
2017-18	n/a	n/a	100	n/a	n/a								
2016-17	45.0	19	93.3	86.0	83.3								
2015-16	25.0	n/a	85.1	82.6	76.5								
2014-15	45.7	15.2	86.0	85.7	80.0								
2013	36.7	35.6	37.0	87.3	61.4								
2012	60.6	17.2	61.5	80.7	67.4								

### ABBREVIATIONS

/	
ACaDME	Acute Cancer Deaths and Mental Health: ISD data mart contains linked inpatient and day-case, 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
СМ	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

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 tumour 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)

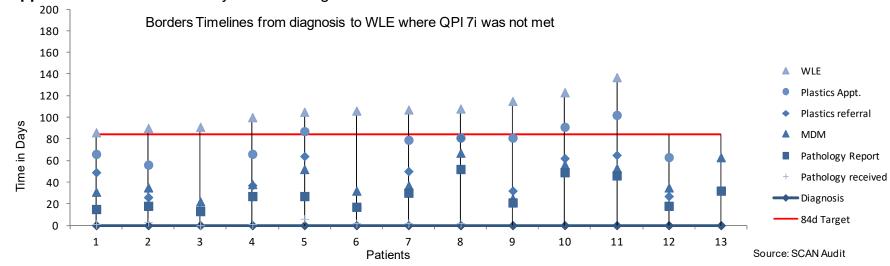
Subungual: beneath a fingernail or toenail

**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.

### Appendix 1

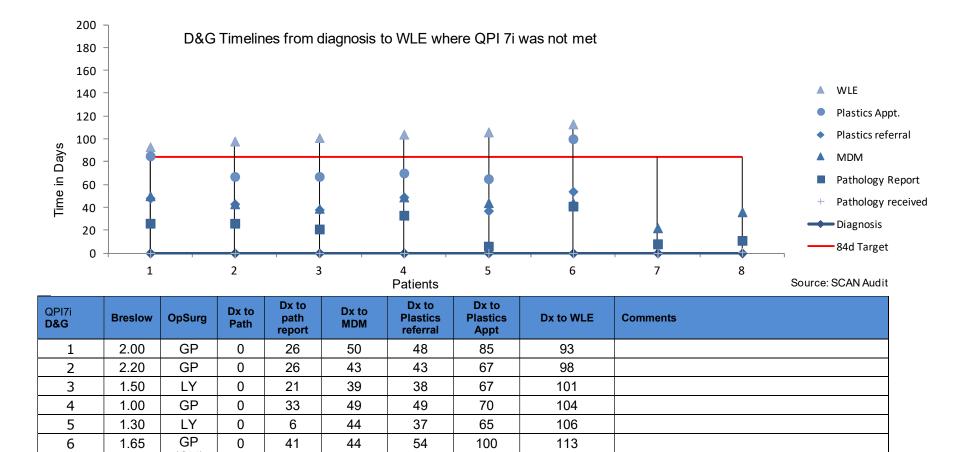
Cutaneous Melanoma QPI Attainment 2017-18	Tar	get%		Bord	ers		D8	G		Fife	)		Loth	ian		SCAN	
QPI 1: Excision Biopsy. patients should have	Excision Biopsy. patients should have Excision biopsy				80.0%	N D	21 23	91.3%	N D	55 57	96.5%	N D	102 139	73.4%	N D	198 244	81.1%
skin cancer clinician	Partial biopsy	90	N D	11 12	91.7%	N D	11 13	84.6%	N D	11 11	100%	N D	26 37	70.3%	N D	59 73	80.8%
QPI 2: Pathology Reporting. Surgical pathology re melanoma should contain full pathology informati		90	N D	23 25	73.3%	N D	8 23	34.8%	N D	59 61	96.7%	N D	111 139	79.9%	N D	201 248	81.0%
QPI 3: Multi-Disciplinary Team Meeting (MDT). P discussed prior to definitive treatment	atients should be	95	N D	34 36	94.4%	N D	26 36	72.2%	N D	64 69	92.8%	N D	167 175	83.5%	N D	291 316	92.1%
QPI 4: Clinical Examination of Draining Lymph No clinical staging	odes as part of	95	N D	28 37	75.7%	N D	34 36	94.4%	N D	69 69	100%	N D	147 176	83.5%	N D	278 318	87.4%
QPI 5: Sentinel Node Biopsy Pathology. Reports pathology information	should contain full	90	N D	5 5	100%	N D	7 7	100%	N D	6 6	100%	N D	30 39	77.0%	N D	49 58	84.5%
QPI 6: Wide Local Excisions to reduce the risk of	local recurrence	95	N D	34 36	94.4%	N D	32 36	88.9%	N D	65 68	95.6%	N D	161 176	91.5%	N D	292 317	92.1%
QPI 7 Time to Wide Local Excision. WLE within	Excision biopsy	95	N D	19 25	76.0%	N D	20 23	87.0%	N D	40 55	72.7%	N D	115 139	82.7%	N D	194 244	79.5%
84 days of diagnostic Biopsy	Partial biopsy	95	N D	12 12	100%	N D	6 13	46.2%	N D	5 11	45.5%	N D	29 37	78.4%	N D	52 73	71.2%
QPI 8: BRAF Status. Patients with unresectable s	stage III or IV	75	N D	2 2	100%	N D	0 0	-	N D	0 0	-	N D	2 2	100%	N D	4 4	100%
QPI 9: Imaging in Advanced Melanoma. CTPET/ of diagnosis (stage IIC, III or IV melanoma)	95	N D	2 6	33.3%	N D	2 8	25.0%	N D	2 9	22.0%	N D	7 22	31.8%	N D	13 45	28.9%	
QPI 10: Systemic Therapy. Patients with unresection melanoma should receive Systemic Anti Cancer		60	N D	1 1	100.0	N D	0 0	-	N D	0 0	-	N D	2 2	100%	N D	3 3	100.0%
Clinical trials N= patients consented to a trial on S (EDGE). D= 5 year average from Cancer Registr	15	N D	0 34	0.0%	N D	0 37	0.0%	N D	0 61	0.0%	N D	0 185	0.0%	N D	0 317	0.0%	

Melanoma QPI attainment summ	ary table 2014/1	5-2016/17		В	orders	6	[	D&G			Fife		Lothian			SCAN		1
		Tar	get %	Yr1	Yr2	Yr3	Yr1	Yr2	Yr3	Yr1	Yr2	Yr3	Yr1	Yr2	Yr3	Yr1	Yr2	Yr3
QPI 1: Excision Biopsy.			90	100	100	100	92.9	83.3	92.0	97.6	96.7	90.7	96.2	98.1	91.5	95.7	97.0	92.0
QPI 2: Pathology Reporting.	QPI 2: Pathology Reporting.							5.6	36.0	68.3	83.3	88.4	0	61.5	63.8	14.0	62.6	66.1
QPI 3: Multi-Disciplinary Team Meeting	g (MDT).		95	100	97.1	96.6	60.9	82.6	78.1	96.4	90.5	91.1	100	97.4	85.3	92.7	96.0	85.5
QPI 4: Clinical Examination of Draining	g Lymph Nodes.		95	51.4	58.3	79.3	30.4	95.7	90.3	71.9	93.2	96.4	90.0	80.1	88.3	45.3	81.8	89.3
QPI 5: Sentinel Node Biopsy Patholog	у.		90	0	100	71.4	50.0	50.0	100	0	44.4	87.5	0	63.6	60.0	3.5	60.3	67.4
QPI 6 (i): Wide Local Excisions. Patier undergo a wide local excision of the in		Excision biopsy	95	96.7	96.8	93.8	85.7	83.3	84.0	97.6	93.3	97.7	90.4	93.8	95.0	92.2	93.3	95.0
reduce the risk of local recurrence	niai biopsy site to	Partial biopsy	95	-	100	100	-	100	100	-	92.9	90.0	-	100	96.8	-	98.3	96.6
QPI 7(i): Time to Wide Local	Diagnostic excision	on biopsy	95	75.9	80.6	80.0	79.2	64.7	90.0	72.5	60.3	72.1	85.9	82.7	87.1	81.7	76.2	84.0
Excision. within 84 days	diagnostic partial	biopsy	95	-	75.0	84.6	-	100	83.3	-	76.9	100	-	88.6	86.7	-	86.0	88.0
QPI 8: BRAF Status. Patients with unre melanoma should have their BRAF sta		or IV cutaneous	75	100	100	-	-	-	100	100	100	100	75.0	100	80.0	83.0	100	83.3
QPI 9: Imaging for Patients with Advar or IV cutaneous melanoma should be			95	100	-	-	-	-	-	100	-	100	100	100	100	100	100	100
QPI 10: Systemic Therapy. In Patients cutaneous melanoma	with unresectable	stage III or IV	60	0	100	-	-	-	100	0	100	0	75	100	40	50.0	100	50.0
QPI 11: Access to Lymphoedema Serv	PI 11: Access to Lymphoedema Service.						-	-	-	-	0	100	100	100	0	100	66.7	33.3
Clinical Trials QPI	7.5	-	0	0	-	0	0	-	0	0	-	0.5	0	-	0.3	0		
	15	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0		



### Appendix 2 - Tables show days to each stage

QPI7i Borders	Breslow	OpSurg	Dx to Path	Dx to path report	Dx to MDM	Dx to Plastics referral	Dx to Plastics Appt	Dx to WLE	Comments
1	0.90	AM	1	15	31	49	66	86	
2	1.05	AM	3	18	35	26	56	90	
3	5.60	AM	0	13	22			91	
4	2.05	AM	1	27	38	37	66	100	
5	6.50	AM	6	27	52	64	87	105	
6	0.60	AM	2	17	32			106	
7	0.51	DK	2	30	37	50	79	107	
8	2.20	GP	2	52	67	81	81	108	
9	1.10	AM	1	21	25	32	81	115	
10	0.82	AM	3	49	56	62	91	123	
11	1.00	AM	1	46	53	65	102	137	
12	3.40	AM	3	18	35	27	63		
13	2.80	DK	3	32	63				



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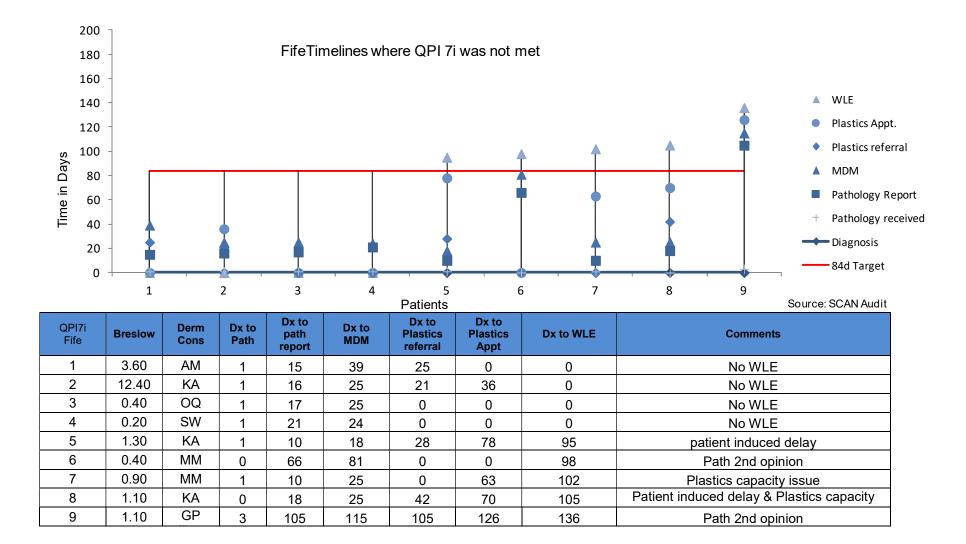
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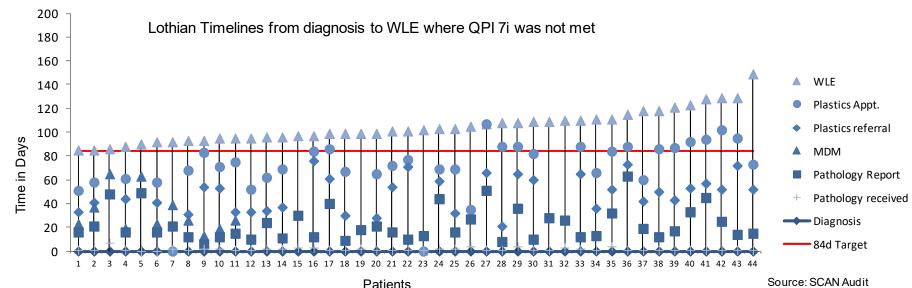
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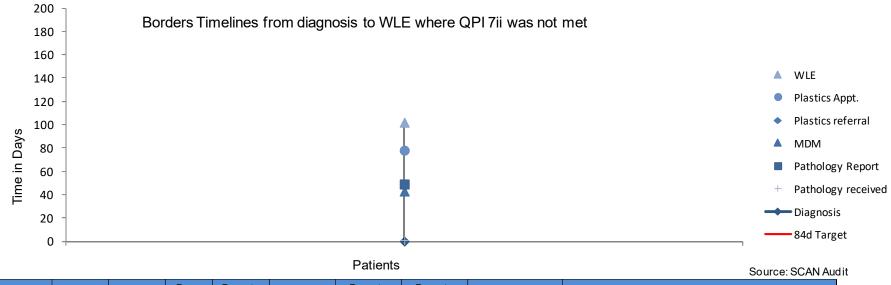
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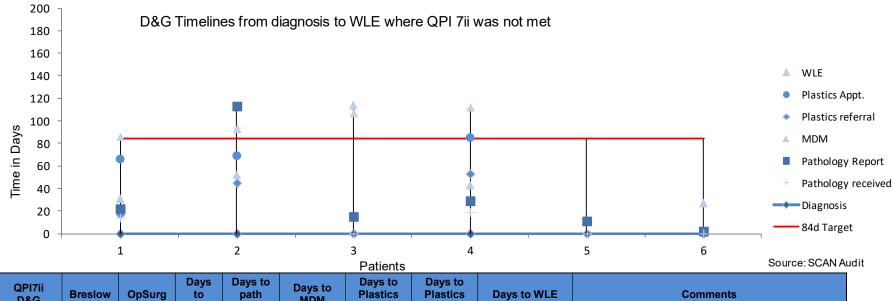


						Patients			Source: SCAN Aud
QPI7i Lothian	Breslow	OpSurg	Dx to Path	Dx to path report	Dx to MDM	Dx to Plastics referral	Dx to Plastics Appt	Dx to WLE	Comments
1	1.00	MJT	1	16	23	33	51	85	
2	1.40	RDA	1	21	37	41	58	85	
3	0.70	GP	7	48	65			86	
4	2.10	8889	1	16	19	44	61	88	
5	0.45	DAM	0	49	63			90	
6	0.80	ETO	0	16	23	41	58	92	
7	9.50	DCW	2	21	39		0	92	
8	6.20	8889	1	12	26	31	68	93	
9	0.90	8889	2	6	13	54	83	93	
10	1.30	8889	2	12	19	53	71	95	
11	0.70	8889	1	15	26	33	75	95	
12	1.50	8889	1	10	26	33	52	95	
13	0.50	8889	2	24	27	34	62	96	
14	1.60	8889	2	11	27	37	69	96	
15	0.60	8889	3	30	41			97	
16	2.90	8889	3	12	28	76	84	97	

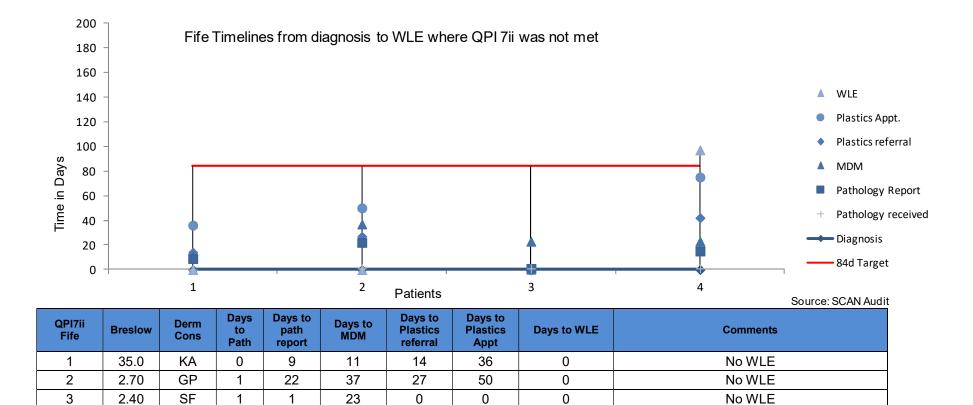
QPI7i Lothian	Breslow	OpSurg	Dx to Path	Dx to path report	Dx to MDM	Dx to Plastics referral	Dx to Plastics Appt	Dx to WLE	Comments
17	1.30	MJT	1	40	58	61	86	99	
18	5.30	8889	1	9	18	30	67	99	
19	0.90	8889	2	18	27			99	
20	2.20	MJT	1	21	30	28	65	99	
21	1.50	8889	1	16	33	54	72	101	
22	1.50	ETO	1	10	25	71	77	101	
23	6.00	DCW	1	13	29		0	102	
24	1.05	8889	2	44	48	59	69	103	
25	0.90	8889	2	16	27	32	69	103	
26	3.50	PDRA	4	27	42		35	105	
27	1.49	LOCU	1	51	59	66	107	107	
28	5.30	ETO	1	8	25	21	88	108	
29	2.20	GMK	4	36	53	65	88	108	
30	3.80	8889	1	10	19	60	82	109	
31	0.70	DAM	1	28	39			109	
32	3.10	CCKT	3	26	35			110	
33	1.10	8889	2	12	20	65	88	110	
34	NR	RDA	1	13	24	36	66	111	
35	0.93	LOCU	4	32	42	52	84	111	
36	3.40	DAM	1	63	74	73	88	115	
37	0.95	DAM	1	19	36	42	60	118	
38	3.30	СВ	1	12	23	50	86	118	
39	4.80	DAM	1	17	24	43	87	121	
40	1.90	8889	1	33	47	53	92	123	
41	5.60	ETO	1	45	59	57	94	128	
42	1.30	LOCU	1	25	39	52	102	129	
43	5.40	8889	1	14	32	72	95	129	
44	0.70	GG	1	15	31	52	73	149	



QPI7ii Borders	Breslow	OpSurg	Days to Path	Days to path report	Days to MDM	Days to Plastics referral	Days to Plastics Appt	Days to WLE	Comments
	0.40	AM	1	49	43	49	78	102	



QPI7ii D&G	Breslow	OpSurg	Days to Path	Days to path report	Days to MDM	Days to Plastics referral	Days to Plastics Appt	Days to WLE	Comments
1	3.15	GP	14	22	31	17	66	86	
2	1.1	MSB	94	113	52	45	69	93	
3	0.4	GP	0	15	114			107	
4	1.3	LY	19	29	43	53	85	112	
5	NR	?	0	11					partial bx surgeon recorded as NA
6	NR	AJG	0	2	27				



75

97

Dermatology & Plastics capacity issues

SF

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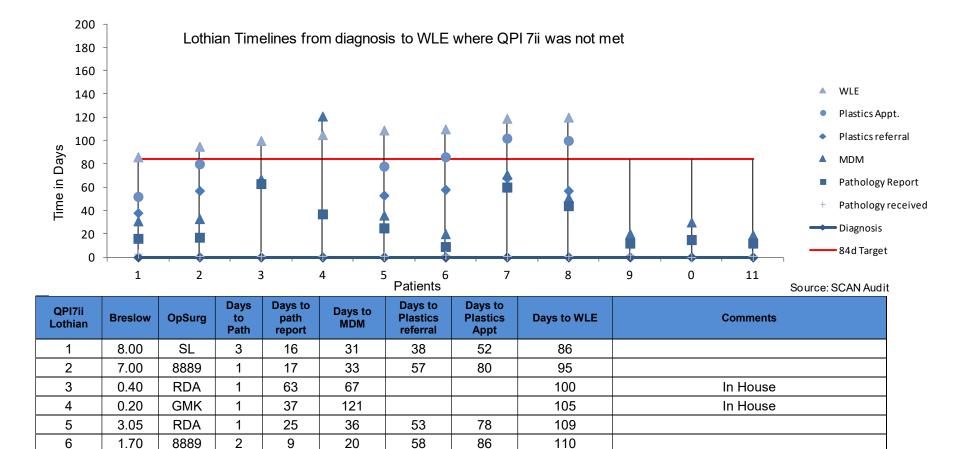
15

23

42

4

1.50



n/a

n/a

n/a

No WLE

No WLE

No WLE

RDA

DAM

LCT

5.10

1.00

0.90

3.30

2.1