SCAN
South East Scotland Cancer Network

NHS SCOTLAND

Working regionally to improve cancer services

SOUTH EAST SCOTLAND CANCER NETWORK
PROSPECTIVE CANCER AUDIT

COLORECTAL CANCER 2023 – 2024
Quality Performance Indicators (QPI)
Comparative Report

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Document History

Version	Circulation	Date	Comments
Version 1	Draft report circulated to SCAN Colorectal Chair and Lead Clinicians in advance of Regional Sign off Meeting on 01/11/2024	10/10/2024	Draft 1 of report sent to Colorectal Chair and Clinical Leads ahead of sign off meeting
Version 2	Draft report circulated to SCAN Regional Leads for approval and SCAN Colorectal Chair commentary	12/11/2024	For Chair's commentary.
Version 3	Final draft report circulated to SCAN Colorectal Group for final comments	21/11/2024	Draft 3 of report sent to SCAN Colorectal Group for comments and approval.
Final Version	Final report circulated to SCAN Colorectal Group, SCAN Governance Framework and SCAN Action Plan Board Leads	06/12/2024	No comments received.
Final Web Version	Published to SCAN Website	27/01/2025	

Comment by Chair of the SCAN Colorectal Group

It is a great pleasure to introduce the SCAN colorectal comparative report for the period of 1st April 2023 - 31st March 2024. As in previous years, this highlights the excellent work being done across the SCAN region in the management of colorectal cancers. The standards of care remain consistently high, despite the severe pressures facing the NHS at present.
The SCAN Audit Team and Sarah Buchan in particular, have again worked well to compile the data that generated this report. Data collection, as in previous years, has been of a high standard and we are grateful to the local cancer audit facilitators for this continued effort.

1023 colorectal cancers have been recorded for this year's audit, compared to 1030 in the previous year. 770 (75%) of these were colon cancers and 253 (25%) were rectal cancers. Amongst this group, 80.8% of patients were 60 or over with 52.3% being males. Just under 50% of the cancers were in the rectum 24.7% (253) or sigmoid colon 23.8% (243). The other commoner sites were caecum-16.1% (165) and in the ascending colon-13.5% (138).

76.4% (782) had surgery, with definitive surgery being carried out in 64.3% (658). Of the patients undergoing definitive surgery, 85.6% (563) were elective cases and 14.4% (95) were emergency cases. The network showed high curative rates amongst patients undergoing definitive surgery- 92.2% (607) for colon cancers and 99.3% (135) for rectal cancers.

The overall surgical outcomes in terms of re-operations (5%), anastomotic leak rates (colonic 3.6%; Rectal 5.3%), 30 &90-day mortality of 1.2% and 1.4% were consistent with good performance across all units. This year has seen progression with the robotic work in a couple of units in the network and roughly 1 in 5 cancers across the network are being done robotically.

Overall, the stage distribution of the cancers was as follows: Stage 1- 23.3% (238); Stage 2- 22.2% (227), Stage 3- 22.1% (226) and Stage 4-19.2% (196). The percentage of Stage IV cancers at presentation remained about in 1 in 5 over the years, with some minor variation noted. The early-stage cancers (Stage 1 & 2) were significantly different amongst the screen detected versus the non-screen detected cancers (65% Vs 30.1%).

Compliance was achieved in 9 of the 16 QPIs. Where compliance was not met, this was often only by a few percentage points. For example, QPI 15 (liver metastases referral to HPB MDT), has now reached 94.4% for synchronous metastases (target=95%) compared to 77% last year. 100% was achieved for metachronous metastases (target=95%) compared to 90% last year. It is good to see excellent progress made in the newer QPIs, compared to previous years.

The 3-yearly formal review of the QPIs will take place in January 2025. This will consider archiving some of the QPIs and introducing new indicators. This process will consider the fact that QPIs are primarily in place to improve the quality of care and patient outcomes.

Although the SCAN region faces many challenges, not least the current financial landscape, we continue to provide a high-quality service across the various colorectal units. There are many innovations which are now becoming standard practice, including robotic surgery, increasing use of neoadjuvant chemotherapy and immunotherapy.

We are fortunate to have dedicated staff across all the different specialties, including nursing, surgery, pathology, radiology, oncology management and audit. As Chairs, we would like to extend our gratitude to all members of the network for their continued support. We hope you find this report informative and thought-provoking.

Dr Stephen Glancy
Deputy Chair SCAN Colorectal Group

Mr S Yalamarthi
Chair SCAN Colorectal Group
November 2024

Action Plans 2023-2024

No Actions have been identified for 2023-2024.

Action Points 2022-2023

QPI	Action required	Progress
QPI 15 (i) & QPI 15 (ii)	Patients with synchronous and metachronous colorectal liver–limited metastases, who are fit for a surgical resection, should be referred to the HPB MDM. However, if a patient is not referred, the reason why no referral has been made is to be recorded in the patient's Colorectal MDM outcome.	**NHS Lothian:** Improvement in meeting this QPI has been noted. However, it will continue to be monitored.
QPI 16 (ii)	Patients with MMR/MSI results suggestive of Lynch Syndrome should have their results actioned by a single contact in each Board to ensure a referral is made to Clinical Genetics, either with or without further MDM input. A single contact should be identified within each Board to take this forward.	**NHS Lothian:** Results should be sent to the Consultant operating or who performed the biopsy to action referred in appropriate patients. This is now embedded in routine practice.

CRC QPI Attainment Summary 2023-2024		Target%	Borders		D&G		Fife		Lothian		SCAN	
1. Radiological Staging & Diagnosis	Colon	95	N 38 D 38	100%	N 64 D 65	98.5%	N 122 D 122	100%	N 254 D 256	99.2%	N 478 D 481	99.4%
	Rectum	95	N 9 D 9	100%	N 20 D 21	95.2%	N 29 D 29	100%	N 66 D 67	98.5%	N 124 D 126	98.4%
2. Pre-operative imaging of the Colon		95	N 43 D 45	95.6%	N 73 D 75	97.3%	N 121 D 133	91.0%	N 276 D 308	91.4%	N 513 D 555	92.4%
5. Lymph Node Yield: surgical resection where ≥12 lymph nodes		90	N 48 D 49	98.0%	N 83 D 84	98.8%	N 117 D 136	86.0%	N 285 D 327	87.1%	N 533 D 596	89.4%
7. Surgical Margins	Primary surgery or surgery after short course XRT	95	N 8 D 9	88.9%	N 19 D 19	100%	N 14 D 17	84.4%	N 51 D 56	91.1%	N 95 D 101	91.1%
	After NACT, or long course XRT ± chemo, or short course XRT with long course intent	85	N - D -	-	N 2 D 2	100%	N 11 D 11	100%	N 11 D 15	73.3%	N 24 D 28	85.7%
8. Re-operation Rates		<10	N 1 D 48	2.1%	N 6 D 90	6.7%	N 5 D 157	3.2%	N 22 D 381	5.8%	N 34 D 676	5.0%
9. Anastomotic Dehiscence	Colon	<5	N 0 D 23	0.0%	N 1 D 43	2.3%	N 3 D 64	4.7%	N 7 D 172	4.1%	N 11 D 302	3.6%
	Rectum incl. TME	<10	N 0 D 19	0.0%	N 0 D 16	0.0%	N 2 D 58	3.4%	N 10 D 135	7.4%	N 12 D 228	5.3%
10 (i). 30 day mortality following surgical resection	Elective	<3	N 1 D 44	2.3%	N 2 D 79	2.5%	N 1 D 143	0.7%	N 3 D 318	0.9%	N 7 D 584	1.2%
	Emergency	<15	N 0 D 4	0.0%	N 2 D 12	16.7%	N 0 D 13	0.0%	N 1 D 63	1.6%	N 3 D 92	3.3%
10 (ii). 90 day mortality following surgical resection	Elective	<4	N 1 D 44	2.3%	N 2 D 78	2.6%	N 2 D 140	1.4%	N 3 D 305	1.0%	N 8 D 573	1.4%
	Emergency	<20	N 0 D 4	0.0%	N 2 D 12	16.7%	N 0 D 13	0.0%	N 9 D 63	14.5%	N 11 D 92	12.0%
11. Adjuvant Chemotherapy		70	N 14 D 18	77.8%	N 17 D 19	89.5%	N 15 D 17	88.2%	N 47 D 50	94.0%	N 93 D 104	98.4%

CRC QPI Attainment Summary 2023-2024		Target%	Borders		D&G		Fife		Lothian		SCAN	
12 (i). 30 day Mortality following Radical Radiotherapy	Neo-adjuvant CXRT	<1	N 0 D 1	0.0%	N 0 D 1	0.0%	N 0 D 5	0.0%	N 0 D 8	0.0%	N 0 D 15	0.0%
	Radiotherapy	<1	N - D -	-	N 0 D 2	0.0%	N 0 D 9	0.0%	N 0 D 19	0.0%	N 0 D 30	0.0%
12 (ii). 90 day Mortality following Radical Radiotherapy	Neo-adjuvant CXRT	<1	N - D -	-	N 0 D 1	0.0%	N 0 D 5	0.0%	N 0 D 7	0.0%	N 0 D 13	0.0%
	Radiotherapy	<1	N - D -	-	N 0 D 2	0.0%	N 0 D 9	0.0%	N 0 D 18	0.0%	N 0 D 29	0.0%
15. Colorectal Liver Metastases	Synchronous	95	N 5 D 5	100%	N 7 D 9	77.8%	N 13 D 13	100%	N 42 D 44	95.5%	N 67 D 71	94.4%
	Metachronous	95	N - D -	-	N - D -	-	N 9 D 9	100%	N 18 D 18	100%	N 27 D 27	100%
16. Assessment of Mismatch Repair (MMR)/Microsatellite (MSI) Status	Assessed	95	N 63 D 65	96.9%	N 99 D 120	82.5%	N 200 D 208	96.2%	N 488 D 491	99.4%	N 850 D 884	96.2%
	Referred to Genetics	90	N 1 D 1	100%	N 1 D 1	100%	N 2 D 2	100%	N 7 D 7	100%	N 11 D 11	100%

KEY	*Numerator (N)*	*% Performance*
	Denominator (D)	

Introduction and Methods

Cohort and Personnel

This report is the seventeenth to present comparative data on patients newly diagnosed with colorectal cancer in South East Scotland Cancer Network (SCAN) at the following hospitals: Borders General Hospital (NHS Borders), Dumfries and Galloway Royal Infirmary (NHS Dumfries & Galloway), Victoria Hospital, Kirkcaldy (NHS Fife), and Western General Hospital, Edinburgh (NHS Lothian). The report covers data on patients newly-diagnosed in the twelve months from 1 April 2023 to 31 March 2024.

Lead Clinicians and staff involved in audit were as follows

SCAN Region	Hospital	Lead Clinician	Audit Support
NHS Borders	Borders General Hospital	Mr Karol Pal/Mr Martin Berlansky	Leanne Robinson
NHS Dumfries & Galloway	Dumfries & Galloway Royal Infirmary	Mr Stuart Whitelaw	Teresa Quintela/ Jennifer Bruce
NHS Fife	Victoria Hospital	Mr John Robertson	Maureen Lamb
SCAN & NHS Lothian	Western General Hospital	Mr Doug Speake	Sarah Buchan

Audit Processes and data recording

All Data was collected using eCase (electronic Cancer audit support environment) throughout SCAN. Data was analysed by the audit facilitators in each NHS Board according to the measurability document provided by PHS. SCAN data was collated by Sarah Buchan, SCAN Senior Information Analyst for Colorectal cancer.

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

Surgical and Oncology data is obtained either from the clinical records (electronic systems and case notes) or by download from the Department of Clinical Oncology database within the Edinburgh Cancer Centre (ECC).

Each of the 4 hospitals provides surgery and chemotherapy but radiotherapy is provided centrally in Edinburgh Cancer Centre. Patients living closer to either Carlisle or Dundee may opt to have treatment outwith the SCAN region. All QPIs will be analysed and presented by Hospital of Diagnosis for data verification/sign off purposes with additional reports by Hospital of Surgery as appropriate.

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

Most patients are identified through weekly multidisciplinary meetings. The following sources are used to check for additional patients:

1. Pathology records
2. GRO Death lists
3. Dept of Clinical Oncology retrospective database
4. Clinical Nurse Specialist database
5. ACaDMe (Acute, Cancer, Deaths and Mental Health); a data mart part of Public Health Scotland.

Dataset and Definitions

The QPIs have been developed collaboratively with the three Regional Cancer Networks, Public Health Scotland (PHS), 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]

Accompanying datasets and measurability criteria for QPIs are published on the PHS website[2]. NHS boards are required to report against QPIs as part of a mandatory, publicly reported, programme at a national level.

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 : Cancer Quality Performance Indicators (QPIs) (healthcareimprovementscotland.org)
[2] Datasets and measurability documents : Colorectal cancer quality performance indicator (QPI) documentation (1 April 2021 onwards) - Colorectal cancer quality performance indicator (QPI) documentation - Publications - Public Health Scotland

The QPI dataset for Colorectal was implemented from 01/04/2013. The dataset has now undergone 2 formal reviews, the latest completed in August 2021. This review was due to be completed in 2020; however it was delayed because of pressures nationally due to the Covid-19 pandemic. All changes are now in place in this report (listed in the table below):

Update following 2nd Formal Review

QPI	Change	Year for Reporting
1 (i)	Palliative endoscopic treatment (stenting) has been added as an exclusion.	2021/22
1 (ii)	Palliative endoscopic treatment (stenting) and TAMIS have both been added as an exclusion.	2021/22
2	Pre-operative imaging now has to take place <180 days from final surgery.	2020/21
5	Palliative endoscopic treatment (stenting) has been added as an exclusion. New data fields -Two episodes of neo-adjuvant treatment can now recorded where applicable.	2021/22
7 (i)	Description of QPI amended: "short course radiotherapy with delay to surgery". "TAMIS" has been added as an exclusion. Denominator wording updated to reflect changes in dataset fields with two episodes of neo-adjuvant treatment now able to be recorded where applicable.	2021/22
7 (ii)	Description of QPI amended removing "long course intent". "TAMIS" added to exclusions. Denominator wording updated to reflect changes in dataset fields with two episodes of neo-adjuvant treatment now able to be recorded where applicable.	2021/22
8	No change following formal review.	2020/21
9 (i) & 9 (ii)	Numerator amended. Addition of anastomotic leak having any intervention including medical, endoscopic, radiological and surgical.	2021/22
10	No change following formal review.	2020/21
11	QPI Title amended: "Dukes C and high risk Dukes B" to: "Stage III". Now presented as one result rather than two, as previous. The lower age limit of 50 has been removed from this QPI.	2021/22
12	QPI Title amended "Radical Radiotherapy". Adjuvant chemotherapy has been removed from this QPI.	2021/22
13	Moved to Key Category section of the Report	2021/22
15	Addition of New QPI - Colorectal Liver Metastases	2021/22
16	Addition of New QPI - Assessment of Mismatch Repair (MMR)/Microsatellite Instability (MSI Status)	2021/22

The following QPIs have been archived: 3, 4 and 6

The next formal review of the Colorectal QPI dataset will commence in November 2024.

Data Quality

Estimate of case ascertainment

An estimate of case ascertainment (the percentage of the population with colorectal cancer recorded in the audit) is made by comparison with the Scottish Cancer Registry five year average. 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.

Number of cases recorded in audit: patients diagnosed 01/04/2023 to 31/03/2024

	Borders	D&G	Fife	Lothian	SCAN
Colon cancer	60	99	184	427	**770**
Rectal cancer	14	40	55	144	**253**
Total	74	139	239	571	**1023**

Estimate of case ascertainment: calculated using the average of the most recent available five years of Cancer Registry Data (2018-2022)

	Borders	D&G	Fife	Lothian	SCAN
Cases from Audit	74	139	239	571	**1023**
Cancer Registry 5 Year Average	102	126	249	549	**1026**
Case Ascertainment %	**72.7%**	**110.3%**	**96.0%**	**104.0%**	**99.7%**

Source: Scottish Cancer Registry, PHS. Data extracted from ACaDMe on 25/09/2024. Note: Death certificate only cases have been excluded. Cases that have been diagnosed in the private sector but received any treatment in NHS hospitals have been included

Quality Assurance

External QA: SCAN Audit participates in external quality assurance (QA) of data by PHS, (i.e. when a sample of data is compared with the data definitions). A QA of the QPI colorectal dataset took place in February 2015 and overall accuracy percentage results are shown below.

	Borders	D&G	Fife	Lothian	Scotland
Accuracy of data recording (%)	99.4%	99.4%	98.3%	97.0%	99.0%

Clinical Sign-Off

This report compares data from reports prepared for individual Health Boards and signed off as accurate following review by the lead clinicians from each Board. 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 Regional Leads Sign off Meeting on 01/11/2024.
- Final report circulated to SCAN Colorectal Group and Clinical Governance Framework on 06/12/2024.

Actions for Improvement

After final sign off, the process is for the report to be sent to the Clinical Governance groups within the four health boards and to the Regional Cancer Planning Group. Action plans and progress with plans will be highlighted to the groups. The report will be placed on the SCAN website once it has been fully signed-off and checked for any disclosive material.

Sarah Buchan
SCAN Senior Information Analyst - Colorectal

DIAGNOSIS AND STAGING

QPI 1 (i): Radiological Diagnosis and Staging – Colon Cancer

Target = 95%

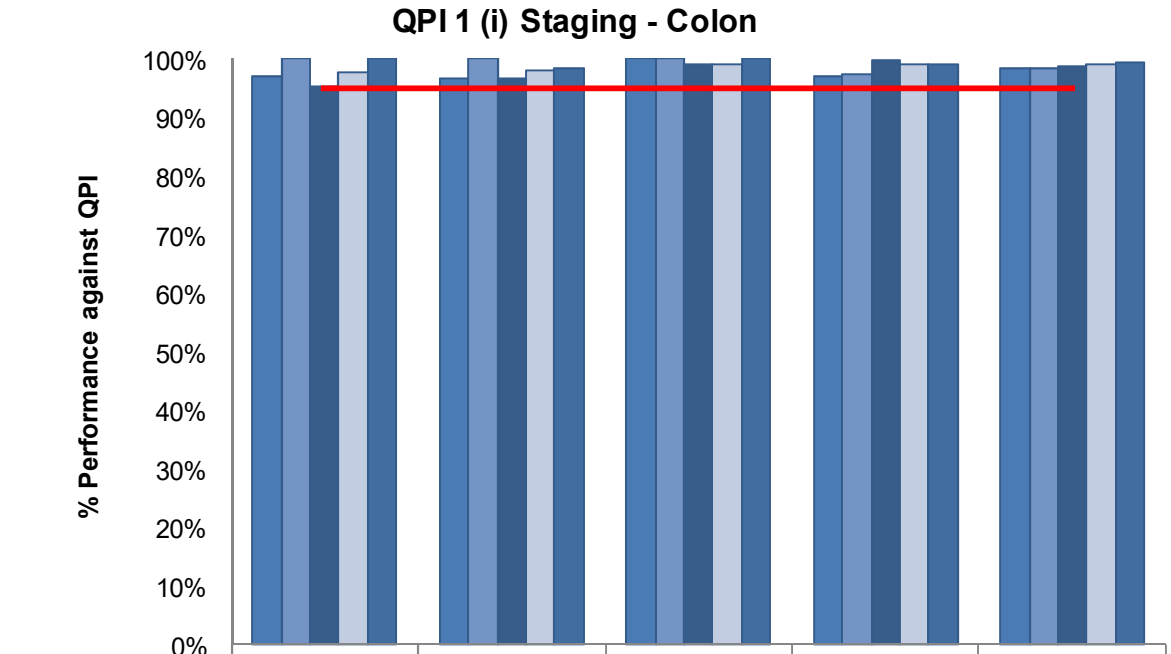
Numerator = Number of patients with **colon cancer** who undergo CT chest, abdomen and pelvis before definitive treatment.

Denominator = All patients with **colon cancer.**

Exclusions = Patients who decline investigation. Patients who undergo emergency surgery. Patients undergoing supportive care only. Patients who undergo palliative treatment (chemotherapy, radiotherapy, surgery or stenting). Patients who die before first treatment.

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2023-2024 Cohort	74	139	239	571	**1023**
Ineligible for this QPI	36	74	117	315	**542**
Numerator	38	64	122	254	478
Not Recorded for the Numerator	0	0	0	0	0
Denominator	38	65	122	256	481
Not Recorded for Exclusion	0	0	0	0	**0**
Not Recorded for Denominator	0	0	0	0	**0**
% Performance	100%	98.5%	100%	99.2%	**99.4%**

All Boards met this QPI



	Borders	D&G	Fife	Lothian	SCAN
2019 - 2020	97.1%	96.6%	100%	97.1%	98.4%
2020 - 2021	100%	100%	100%	97.4%	98.4%
2021 - 2022	95.3%	96.7%	99.0%	99.6%	98.7%
2022 - 2023	97.7%	98.1%	99.2%	99.1%	98.9%
2023 - 2024	100%	98.5%	100%	99.2%	99.4%
Target - 95%	95%	95%	95%	95%	95%

QPI 1 (ii): Radiological Diagnosis and Staging – Rectal Cancer

Target = 95%

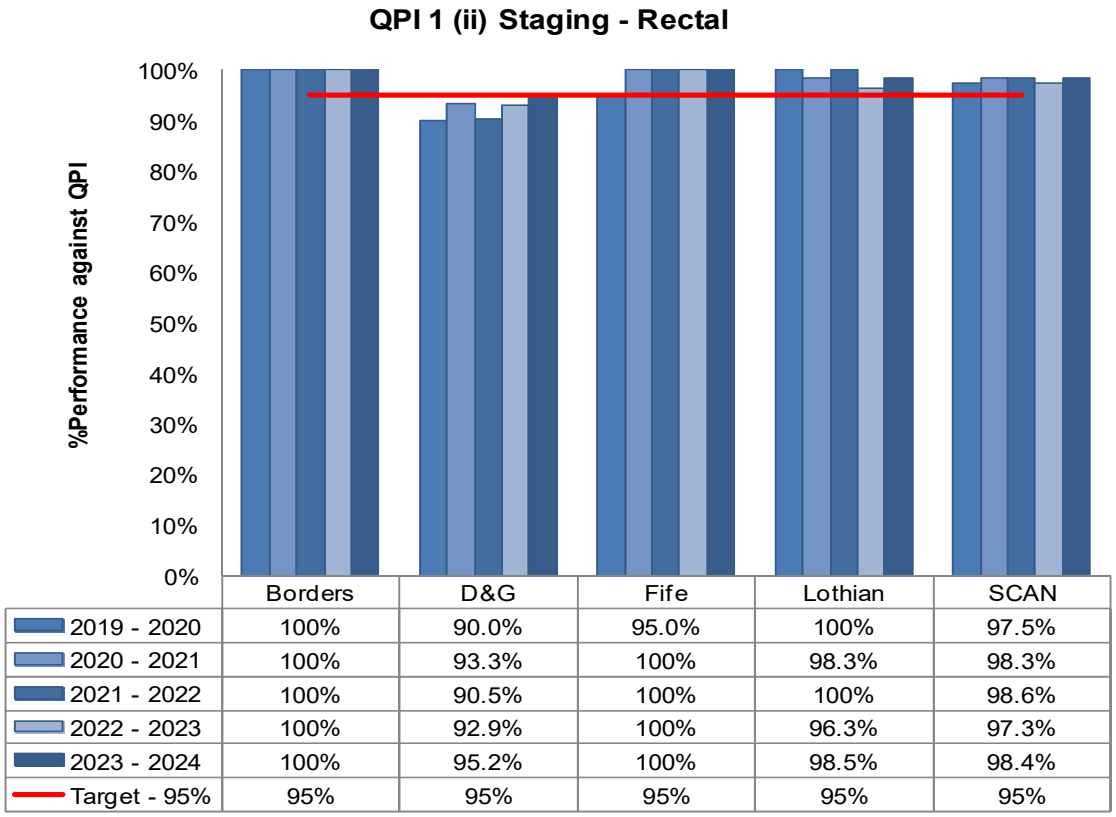
Numerator = All patients with **rectal cancer** undergoing definitive treatment (chemoradiotherapy or surgical resection) who undergo CT chest, abdomen and pelvis and MRI pelvis before definitive treatment.

Denominator = All patients with **rectal cancer** undergoing definitive treatment (chemoradiotherapy or surgical resection).

Exclusions = Patients who decline investigation. Patients who undergo emergency surgery[3] Patients with a contraindication to MRI. Patients who undergo Transanal Endoscopic Microsurgery (TEM)/Transanal Minimally Invasive Surgery (TAMIS). Patients who undergo Transanal Resection of Tumour (TART). Patients who undergo palliative treatment (chemotherapy, radiotherapy, surgery or stenting). Patients who died before first treatment.

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2023-24 Cohort	74	139	239	571	**1023**
Ineligible for this QPI	65	118	210	504	**542**
Numerator	9	20	29	66	**124**
Not Recorded for Numerator	0	0	0	0	**0**
Denominator	9	21	29	67	**126**
Not Recorded for Exclusions	0	0	0	0	**0**
Not Recorded for Denominator	0	0	0	0	**0**
% Recorded	100%	95.2%	100%	98.5%	**98.4%**

This QPI was met by all Boards



	Borders	D&G	Fife	Lothian	SCAN
2019 - 2020	100%	90.0%	95.0%	100%	97.5%
2020 - 2021	100%	93.3%	100%	98.3%	98.3%
2021 - 2022	100%	90.5%	100%	100%	98.6%
2022 - 2023	100%	92.9%	100%	96.3%	97.3%
2023 - 2024	100%	95.2%	100%	98.5%	98.4%
Target - 95%	95%	95%	95%	95%	95%

[3] Emergency surgical resection is defined by the Consultant in Charge of the patient's care

QPI 2: Pre-Operative Imaging of the Colon

Target = 95%

Numerator = Number of patients who undergo elective surgical resection for colorectal cancer who have the whole colon visualised by colonoscopy or CT colonography before surgery, unless the non-visualised segment of colon has been removed. (Date of Final Definitive (or only) Surgery minus Date of Imaging Large Bowel is less than 180 days).

Denominator = All patients who undergo elective surgical resection for colorectal cancer.

Exclusions = Patients who undergo palliative surgery. Patients who have incomplete bowel imaging due to obstructing tumour.

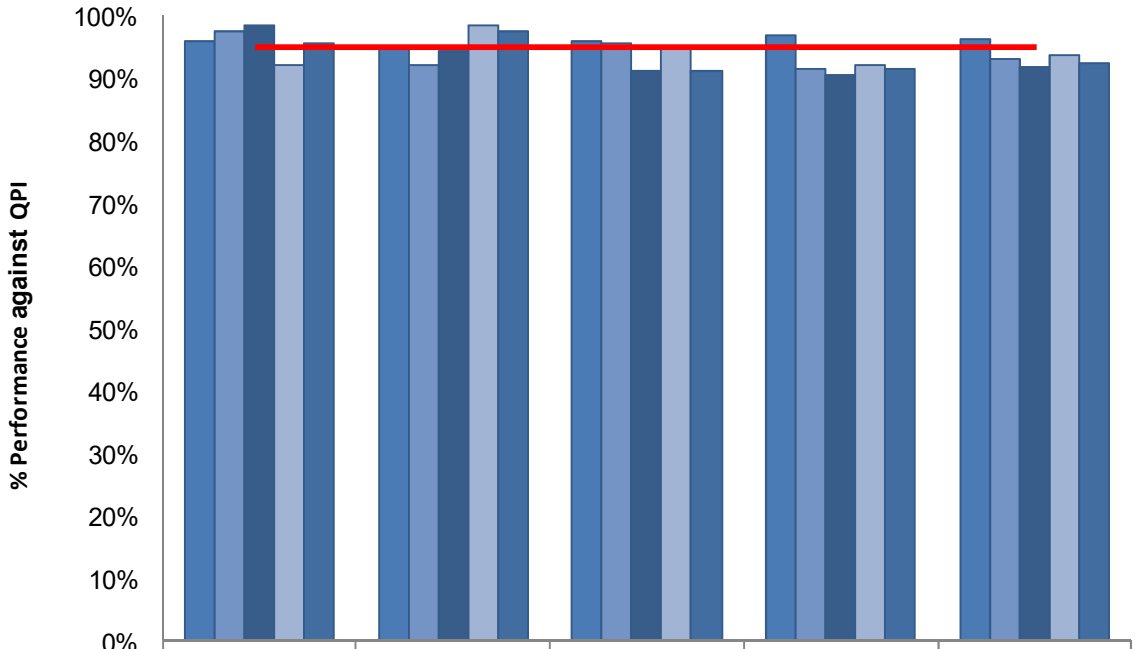
Target 95%	Borders	D&G	Fife	Lothian	SCAN
2023-24 Cohort	74	139	239	571	**1023**
Ineligible for this QPI	29	64	106	269	**468**
Numerator	43	73	121	276	**513**
Not Recorded for the Numerator	0	0	0	0	**0**
Denominator	45	75	133	302	**555**
Not Recorded for Exclusions	0	0	0	0	**0**
Not Recorded for the Denominator	0	0	0	0	**0**
% Percentage	95.6%	97.3%	91.0%	91.4%	**92.4%**

Comments where this QPI was not met:

Fife: The QPI target was not met showing a shortfall of 3.3% (11 cases) - 4 patients had flexible sigmoidoscopy only; 1 patient had short course radiotherapy with delay and then had surgery in Lothian (227 days); 1 patient had short course radiotherapy and chemotherapy (RAPIDO) (185 days); 3 patients had neoadjuvant chemo (193 and 197 days); 1 patient had neoadjuvant chemorads (181 days); 1 patient had neoadjuvant chemoradiotherapy followed by neoadjuvant chemotherapy (224 days); 1 patient's initial colonoscopy path came back showing high grade dysplasia, decision was for further scope; flexible sigmoidoscopy performed - pathology confirmed adenocarcinoma (198 days).

Lothian: The QPI target was not met showing a shortfall of 3.6% (26 cases) 9 patients were treated with neoadjuvant radiotherapy then chemotherapy (RAPIDO) and were scoped pre treatment however time to surgery was more than 180 days. 7 patients underwent colonoscopy/CT colon but over 180 days prior to surgery. 5 patients had sigmoidoscopy only prior to surgery. 4 patients had no colonoscopy/CT colon performed. 1 patient refused colonoscopy but CT colon was not booked as an alternative.

QPI 2 - Pre-Operative Imaging of Colon



	Borders	D&G	Fife	Lothian	SCAN
2019 - 2020	95.8%	94.4%	95.9%	96.6%	96.0%
2020 - 2021	97.4%	92.1%	95.5%	91.3%	93.0%
2021 - 2022	98.3%	94.1%	90.9%	90.4%	91.8%
2022 - 2023	92.0%	98.4%	94.8%	92.0%	93.5%
2023 - 2024	95.6%	97.3%	91.0%	91.4%	92.4%
Target - 95%	95%	95%	95%	95%	95%

Comment: At the 2nd Formal Review this QPI was updated with pre-operative imaging now having to take place <180 days from final surgery. There is ongoing discussion around the QPI measurability being updated to pre-operative imaging taking place <180 days from commencing first treatment instead of definitive surgery. This would ensure patients undertaking neo-adjuvant treatment meet the target. It was also suggested this QPI could be dropped.

SURGICAL OUTCOMES

QPI 5: Lymph Node Yield – Hospital of Surgery

Target = 90%

Numerator = Number of patients with colorectal cancer who undergo curative surgical resection where ≥ 12 lymph nodes are pathologically examined.

Denominator = All patients with colorectal cancer who undergo curative surgical resection (with or without neo-adjuvant short course radiotherapy).

Exclusions = Patients with rectal cancer who undergo long course neo-adjuvant chemoradiotherapy or radiotherapy. Patients who undergo Transanal Endoscopic Microsurgery (TEM)/Transanal Minimally Invasive Surgery (TAMIS) or Transanal Resection of Tumour (TART).

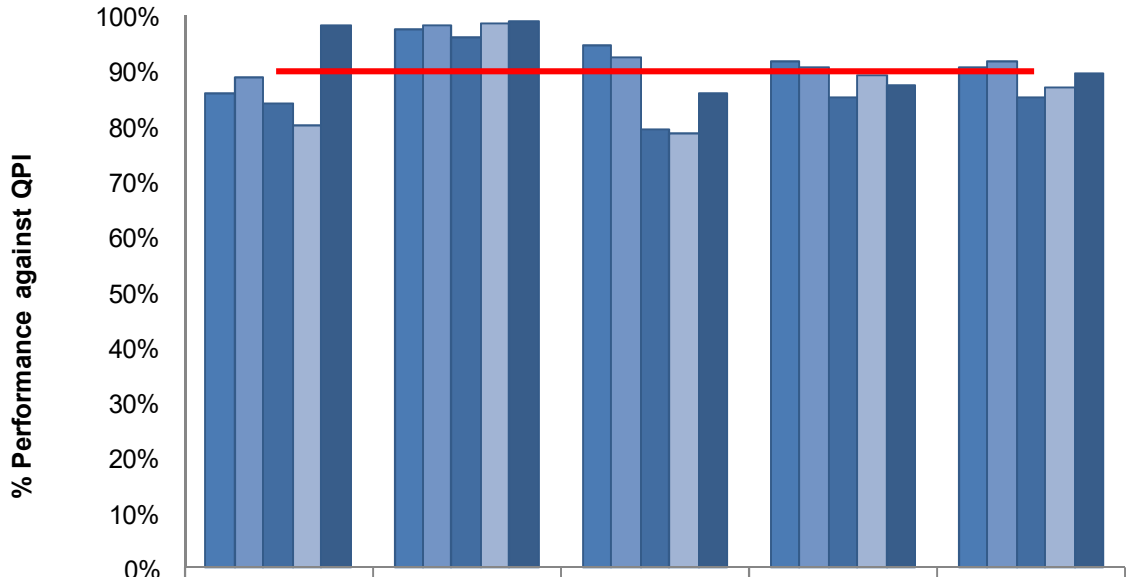
Target 90%	Borders	D&G	Fife	Lothian	SCAN
Numerator	48	83	117	285	**533**
Not Recorded for the Numerator	0	0	0	0	**0**
Denominator	49	84	136	327	**596**
Not Recorded for Exclusions	0	0	0	0	**0**
Not Recorded for Denominator	0	0	0	0	**0**
% Percentage	98.0%	98.8%	86.0%	87.2%	**89.4%**

Comments where this QPI was not met:

Fife: The QPI target was not met showing a shortfall of 4.0% (19 cases) 13 cases had extra work done to ensure that all lymph nodes had been identified. 4 of the 13 cases had neoadjuvant treatment. One case was a resection for a polyp cancer - following polypectomy; 8 cases did not have a reason documented to explain limited node count.

Lothian: The QPI target was not met showing a shortfall of 2.8% (42 cases) 12 of the cases, including some of those with downstaging treatment, had positive nodes in the nodes identified so treatment decisions would not have been altered by finding of more lymph nodes. In 10 cases the specimen had been re-examined in an effort to ensure all lymph nodes were harvested. 8 cases were either resections containing pT1 tumours or completion colectomies for polyp cancers and these tend to be cases where lymph nodes are not enlarged and therefore very difficult to find. In the majority of these cases, the reporting pathologist had commented on the small size of the nodes and in some cases provided a measurement of the size of nodes found. 4 of these had some form of downstaging treatment prior to surgery, a known factor in difficulty identifying lymph nodes at pathological dissection. In 2 cases, both sigmoid colectomies, comment was made at the time of dissection on the limited nature of the resection, with resultant limited mesenteric fat to examine.

QPI 5 - Lymph Node Yield



	Borders	D&G	Fife	Lothian	SCAN
2019 - 2020	86.0%	97.5%	94.7%	91.6%	90.5%
2020 - 2021	88.6%	98.0%	92.4%	90.5%	91.6%
2021 - 2022	83.9%	95.9%	79.4%	85.3%	85.2%
2022 - 2023	80.0%	98.6%	78.7%	89.1%	86.8%
2023 - 2024	98.0%	98.8%	86.0%	87.2%	89.4%
Target - 90%	90%	90%	90%	90%	90%

Comment: Overall this QPI is felt to be useful. However, the 90% target is considered not suitable. Patients undergoing neo-adjuvant treatment or completion colectomies for polyp cancers don't tend to bear large lymph node harvests. It was felt not appropriate to ask reporting Pathologists to spend extra time looking for lymph nodes in specimens as it would not change patient treatment in some cases. A change to this QPI to look for EMVI (extramural vascular invasion) was also tabled.

QPI 7 (i): Surgical Margins – Hospital of Surgery

Target = 95%

Numerator = Number of patients with **rectal cancer** who undergo elective primary surgical resection or immediate / early surgical resection following neo-adjuvant short course radiotherapy in which the circumferential margin is clear of tumour.

Denominator = All patients with **rectal cancer** who undergo elective primary surgical resection or immediate / early surgical resection following neo-adjuvant short course radiotherapy.

Exclusions = Patients who undergo Transanal Endoscopic Microsurgery (TEM)/Transanal Minimally Invasive Surgery (TAMIS) or Transanal Resection of Tumour (TART).

Target 95%	Borders	D&G	Fife	Lothian	SCAN
Numerator	8	19	14	51	**92**
Not Recorded for the Numerator	0	0	0	0	**0**
Denominator	9	19	17	56	**101**
Not Recorded for Exclusions	0	0	0	0	**0**
Not Recorded for Denominator	0	0	0	0	**0**
% Percentage	88.9%	100%	82.4%	91.1%	**91.1%**

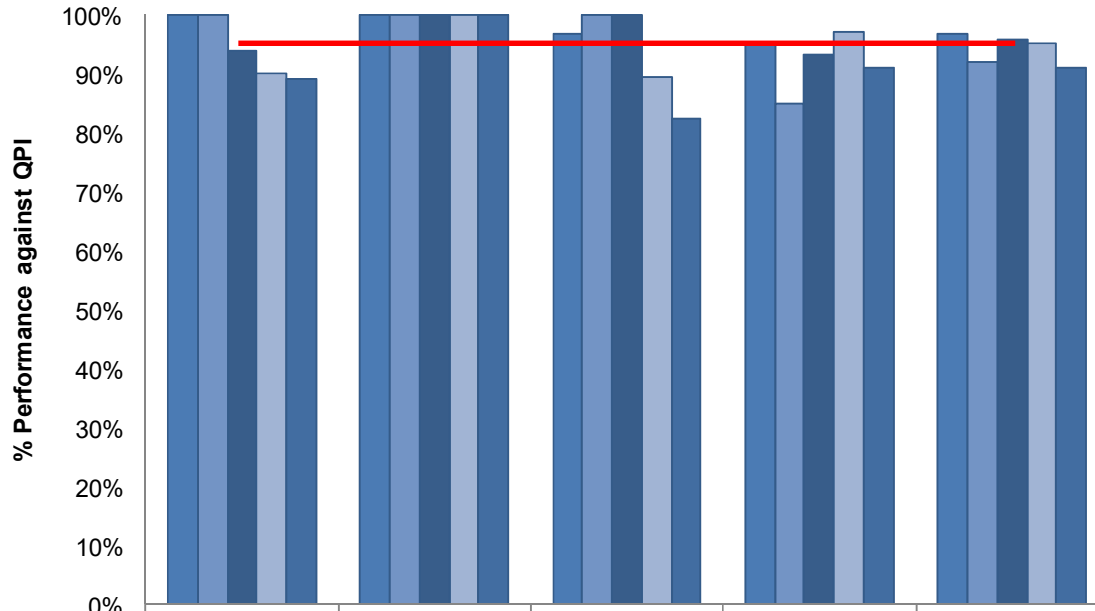
Comments where this QPI was not met:

Borders: The QPI target was not met showing a shortfall of 6.1% (1 case) 1 patient had an involved lymph node less than 1mm from the CRM which was not clear on initial MRI.

Fife: The QPI target was not met showing a shortfall of 12.6% (3 cases) 1 patient was for SCRT but due to pending obstruction decision at MDT was for surgery as soon as possible (CRM involved by tumour); 1 patient decision was for surgery (CRM involved by tumour); 1 patient was referred to oncology to discuss neoadjuvant long course radiotherapy, however decision was not for radiotherapy due to worry of significant toxicities. Scans were re-reviewed and it was felt that the CRM was not threatened. (CRM involved by lymph node).

Lothian: The QPI target was not met showing a shortfall of 3.9% (5 cases) 3 patients had tumour less than 1mm from CRM (2 patients went straight to surgery, 1 patient had short course radiotherapy), 1 patient CRM was involved by a satellite nodule (straight to surgery) and 1 patient had macroscopic involvement at the CRM (straight to surgery for palliative resection).

QPI 7 (i) Surgical Margins



	Borders	D&G	Fife	Lothian	SCAN
2019 - 2020	100%	100%	96.6%	95.0%	96.6%
2020 - 2021	100%	100%	100%	84.9%	91.8%
2021 - 2022	93.8%	100%	100%	93.3%	95.8%
2022 - 2023	90.0%	100%	89.3%	97.1%	95.0%
2023 - 2024	88.9%	100%	82.4%	91.1%	91.1%
Target - 95%	95%	95%	95%	95%	95%

Comment: Discussion took place around the measurability of this QPI. A suggestion of adding patients undergoing palliative treatment to the exclusions was made.

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QPI 7 (ii): Surgical Margins – Hospital of Surgery

Target = 85%

Numerator = Number of patients with **rectal cancer** who undergo elective surgical resection following neo-adjuvant chemotherapy, long course chemoradiotherapy, long course radiotherapy or short course radiotherapy with long course intent (delay to surgery) in which the circumferential margin is clear of tumour.

Denominator = All patients with rectal cancer who undergo elective surgical resection following neo-adjuvant chemotherapy, long course chemoradiotherapy, long course radiotherapy or short course radiotherapy with delay to surgery.

Exclusions = Patients who undergo Transanal Endoscopic Microsurgery (TEM)/Transanal Minimally Invasive Surgery (TAMIS) or Transanal Resection of Tumour (TART).

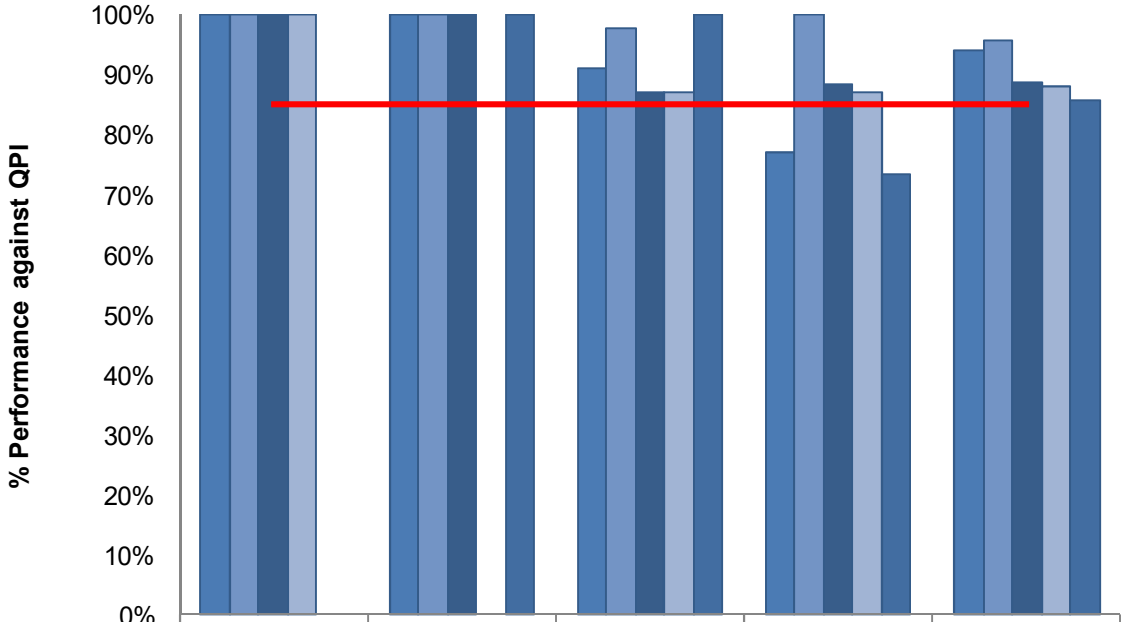
Target 85%	Borders	D&G	Fife	Lothian	SCAN
Numerator	-	2	11	11	24
Not Recorded for the Numerator	-	0	0	0	0
Denominator	-	2	11	15	28
Not Recorded for Exclusions	-	0	0	0	0
Not Recorded for Denominator	-	0	0	0	0
% Percentage	-	100%	100%	73.3%	**85.7%**

Borders: No patients were eligible for this QPI

Comments where this QPI was not met:

Lothian: The QPI target was not met showing a shortfall of 12.7% (4 cases) 2 patients had tumour less than 1mm to the CRM (1 patient had neo-adjuvant radiotherapy then chemotherapy (Rapido) and 1 patient had short course radiotherapy and delay to surgery) 1 patient had lymphovascular invasion up to the resection margin (neo-adjuvant chemotherapy), 1 patient had satellite tumour at the CRM (short course radiotherapy and delay).

QPI 7 (ii) - Surgical Margins



	Borders	D&G	Fife	Lothian	SCAN
2019 - 2020	100%	100%	90.9%	76.9%	93.7%
2020 - 2021	100%	100%	97.5%	100%	95.5%
2021 - 2022	100%	100%	86.7%	88.2%	88.6%
2022 - 2023	100%		86.7%	86.7%	87.9%
2023 - 2024	0.0%	100%	100%	73.3%	85.7%
Target - 85%	85%	85%	85%	85%	85%

QPI 8: Re-operation Rates - Hospital of Surgery

Target = <10%

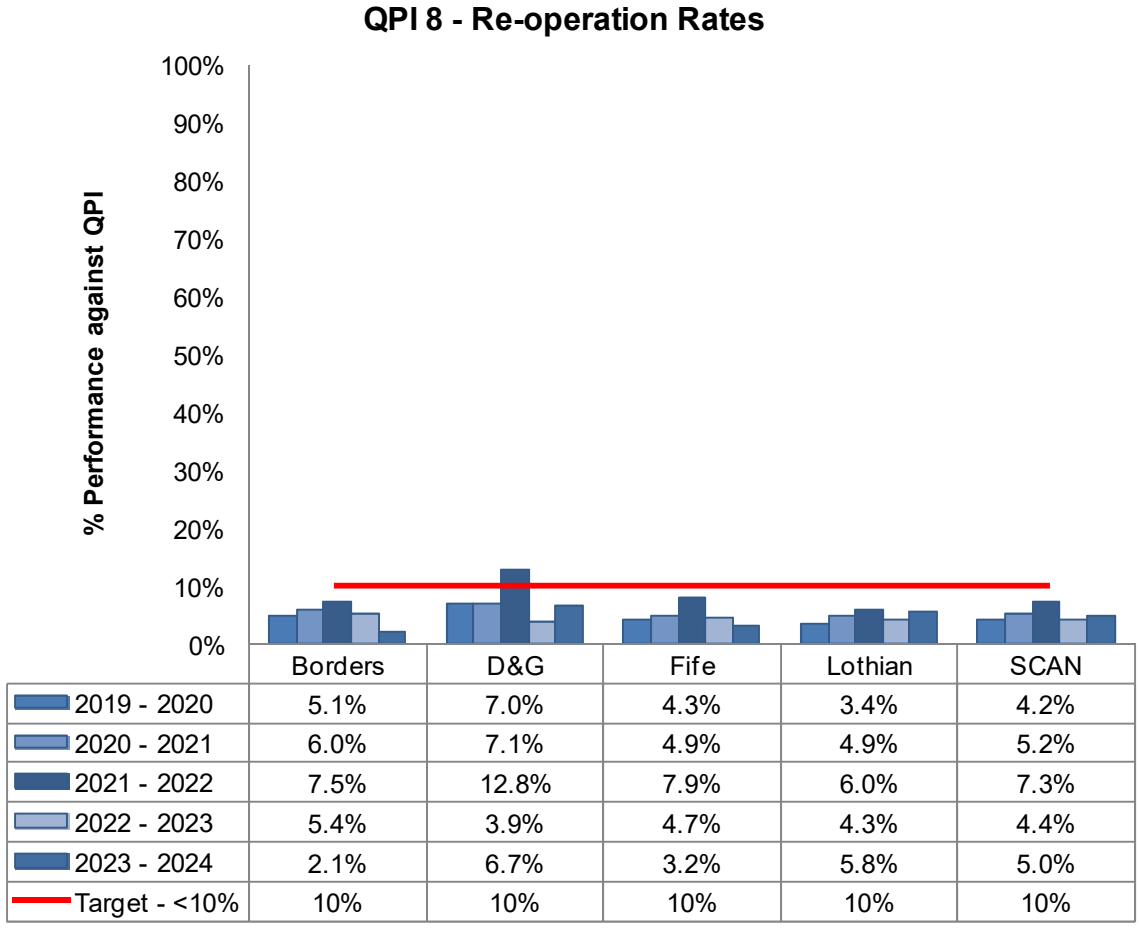
Numerator = Number of patients with colorectal cancer who undergo surgical resection who return to theatre following initial surgical procedure (within 30 days of surgery) to deal with complications related to the index procedure.

Denominator = All patients with colorectal cancer who undergo surgical resection.

Exclusions = No exclusions.

Target <10%	Borders	D&G	Fife	Lothian	SCAN
Numerator	1	6	5	22	**34**
Not Recorded for the Numerator	0	0	0	0	**0**
Denominator	48	90	157	381	**676**
Not Recorded for Exclusions	0	0	0	0	**0**
Not Recorded for Denominator	0	0	0	0	**0**
% Percentage	2.1%	6.7%	3.2%	5.8%	**5.0%**

All Boards met this QPI



	Borders	D&G	Fife	Lothian	SCAN
2019 - 2020	5.1%	7.0%	4.3%	3.4%	4.2%
2020 - 2021	6.0%	7.1%	4.9%	4.9%	5.2%
2021 - 2022	7.5%	12.8%	7.9%	6.0%	7.3%
2022 - 2023	5.4%	3.9%	4.7%	4.3%	4.4%
2023 - 2024	2.1%	6.7%	3.2%	5.8%	5.0%
Target - <10%	10%	10%	10%	10%	10%

QPI 9 (i): Anastomotic Dehiscence – Hospital of Surgery

Target = <5%

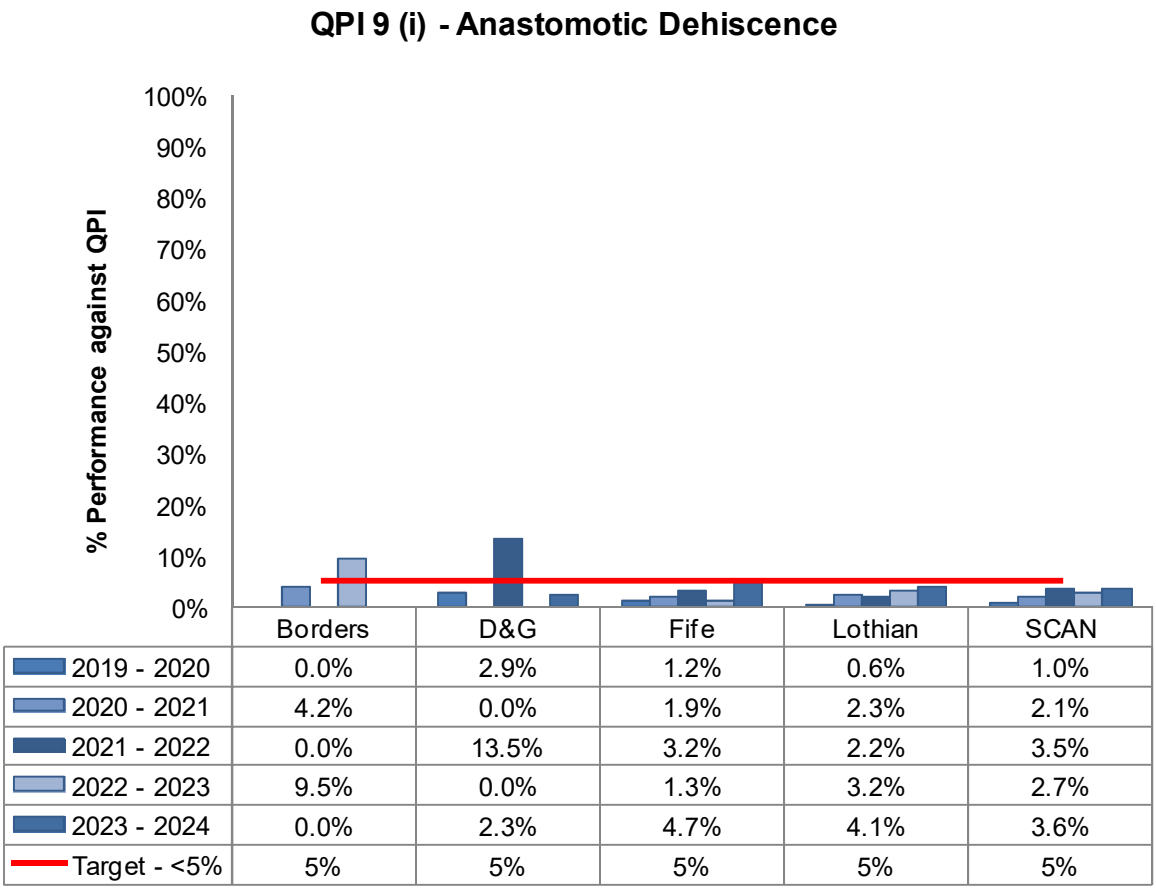
Numerator = Number of patients with colorectal cancer who undergo a surgical procedure involving anastomosis of the colon having anastomotic leak requiring intervention (medical, endoscopic, radiological or surgical).

Denominator = All patients with colorectal cancer who undergo a surgical procedure involving anastomosis of the colon.

Exclusions = No exclusions.

Target <5%	Borders	D&G	Fife	Lothian	SCAN
Numerator	0	1	3	7	**11**
Not Recorded for the Numerator	0	0	0	0	**0**
Denominator	23	43	64	172	**302**
Not Recorded for Exclusions	0	0	0	0	**0**
Not Recorded for Denominator	0	0	0	0	**0**
% Percentage	**0.0%**	**2.3%**	**4.7%**	**4.1%**	**3.6%**

All Boards met this QPI



	Borders	D&G	Fife	Lothian	SCAN
2019 - 2020	0.0%	2.9%	1.2%	0.6%	1.0%
2020 - 2021	4.2%	0.0%	1.9%	2.3%	2.1%
2021 - 2022	0.0%	13.5%	3.2%	2.2%	3.5%
2022 - 2023	9.5%	0.0%	1.3%	3.2%	2.7%
2023 - 2024	0.0%	2.3%	4.7%	4.1%	3.6%
Target - <5%	5%	5%	5%	5%	5%

QPI 9 (ii): Anastomotic Dehiscence – Hospital of Surgery

Target = <10%

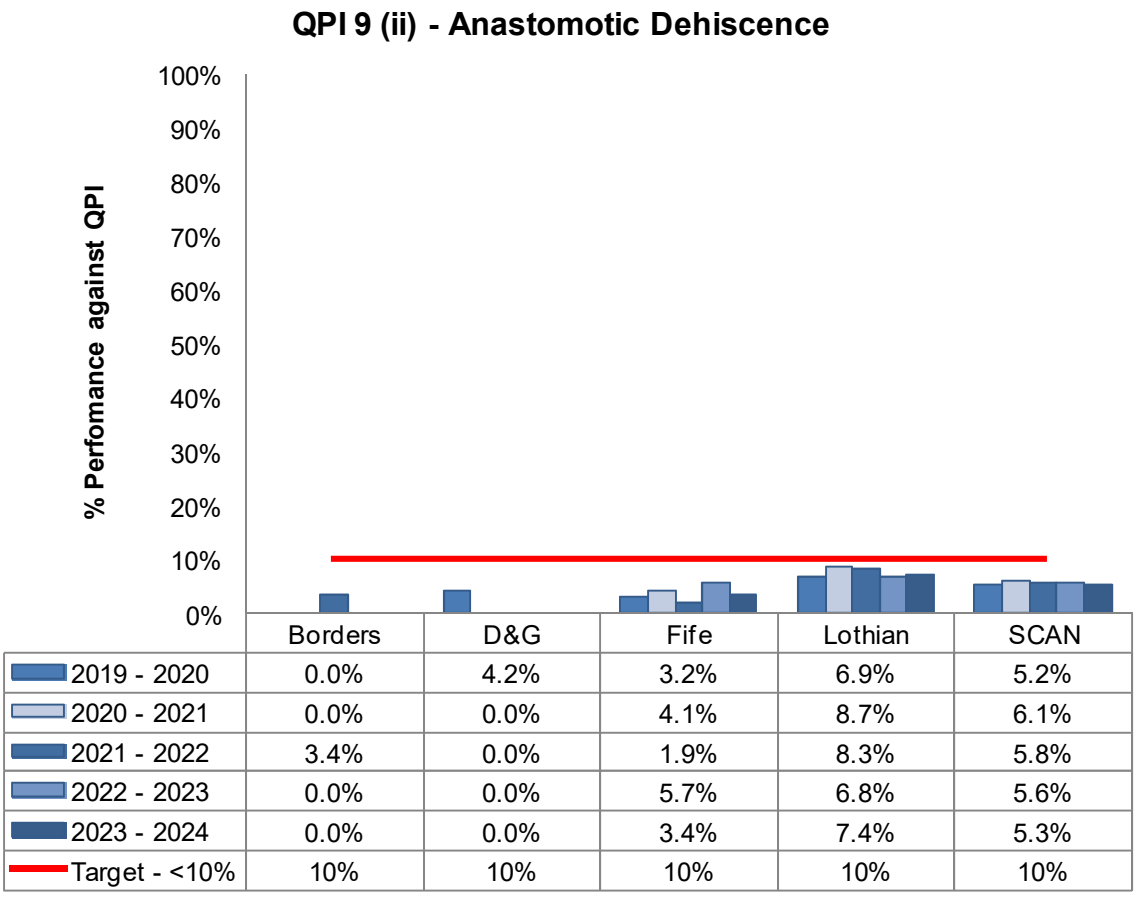
Numerator = Number of patients with colorectal cancer who undergo a surgical procedure involving anastomosis of the rectum (including: anterior resection with TME) having anastomotic leak requiring intervention (medical, endoscopic, radiological or surgical).

Denominator = All patients with colorectal cancer who undergo a surgical procedure involving anastomosis of the rectum (including anterior resection with TME).

Exclusions = No exclusions.

Target <10%	Borders	D&G	Fife	Lothian	SCAN
Numerator	0	0	2	10	**12**
Not Recorded for the Numerator	0	0	0	0	**0**
Denominator	19	16	58	135	**228**
Not Recorded for Exclusions	0	0	0	0	**0**
Not Recorded for Denominator	0	0	0	0	**0**
% Percentage	0.0%	0.0%	3.4%	7.4%	**5.3%**

All Boards met this QPI



	Borders	D&G	Fife	Lothian	SCAN
2019 - 2020	0.0%	4.2%	3.2%	6.9%	5.2%
2020 - 2021	0.0%	0.0%	4.1%	8.7%	6.1%
2021 - 2022	3.4%	0.0%	1.9%	8.3%	5.8%
2022 - 2023	0.0%	0.0%	5.7%	6.8%	5.6%
2023 - 2024	0.0%	0.0%	3.4%	7.4%	5.3%
Target - <10%	10%	10%	10%	10%	10%

QPI 10 (i): 30 and 90 Day Mortality Following Surgical Resection – Hospital of Surgery

Target = Elective surgical resection - 30 day mortality <3%, 90 day mortality <4%

Numerator = Number of patients with colorectal cancer who undergo elective surgical resection who die within 30 or 90 days of surgery.

Denominator = All patients with colorectal cancer who undergo elective surgical resection.

Exclusions = No exclusions

Elective Surgery - 30 day mortality

Target <3%	Borders	D&G	Fife	Lothian	SCAN
Numerator	1	2	1	3	**7**
Not Recorded for the Numerator	0	0	0	0	**0**
Denominator	44	79	143	318	**584**
Not Recorded for Exclusions	0	0	0	0	**0**
Not Recorded for Denominator	0	0	0	0	**0**
% Percentage	2.3%	2.5%	0.7%	0.9%	**1.2%**

All Boards met this QPI

Elective Surgery - 90 day mortality

Target <4%	Borders	D&G	Fife	Lothian	SCAN
Numerator	1	2	2	3	**8**
Not Recorded for the Numerator	0	0	0	0	**0**
Denominator	44	78	140	311	**573**
Not Recorded for Exclusions	0	0	0	0	**0**
Not Recorded for Denominator	0	0	0	0	**0**
% Percentage	2.3%	2.6%	1.4%	1.0%	**1.4%**

All Boards met this QPI

QPI 10 (ii): 30 and 90 Day Mortality Following Surgical Resection – Hospital of Surgery

Target = Emergency surgical resection - 30 day mortality <15% 90 day mortality <20%

Numerator = Number of patients with colorectal cancer who undergo emergency surgical resection who die within 30 or 90 days of surgery.

Denominator = All patients with colorectal cancer who undergo emergency or elective surgical resection.

Exclusions = No exclusions

Emergency Surgery - 30 day mortality

Target <15%	Borders	D&G	Fife	Lothian	SCAN
Numerator	0	2	0	1	**3**
Not Recorded for the Numerator	0	0	0	0	**0**
Denominator	4	12	13	63	**92**
Not Recorded for Exclusions	0	0	0	0	**0**
Not Recorded for Denominator	0	0	0	0	**0**
% Percentage	0.0%	16.7%	0.0%	1.6%	**3.3%**

Comments where this QPI was not met:

D&G: The QPI target was exceeded by 1.7% (2 cases). Review by Clinicians was undertaken and no actions identified.

Emergency Surgery - 90 day mortality

Target <20%	Borders	D&G	Fife	Lothian	SCAN
Numerator	0	2	0	9	**11**
Not Recorded for the Numerator	0	0	0	0	**0**
Denominator	4	12	13	63	**92**
Not Recorded for Exclusions	0	0	0	0	**0**
Not Recorded for Denominator	0	0	0	0	**0**
% Percentage	0.0%	16.7%	0.0%	14.3%	**12.0%**

All Boards met this QPI

Comment: 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.

ONCOLOGICAL TREATMENT OUTCOMES

QPI 11: Adjuvant Chemotherapy

Target = 70%

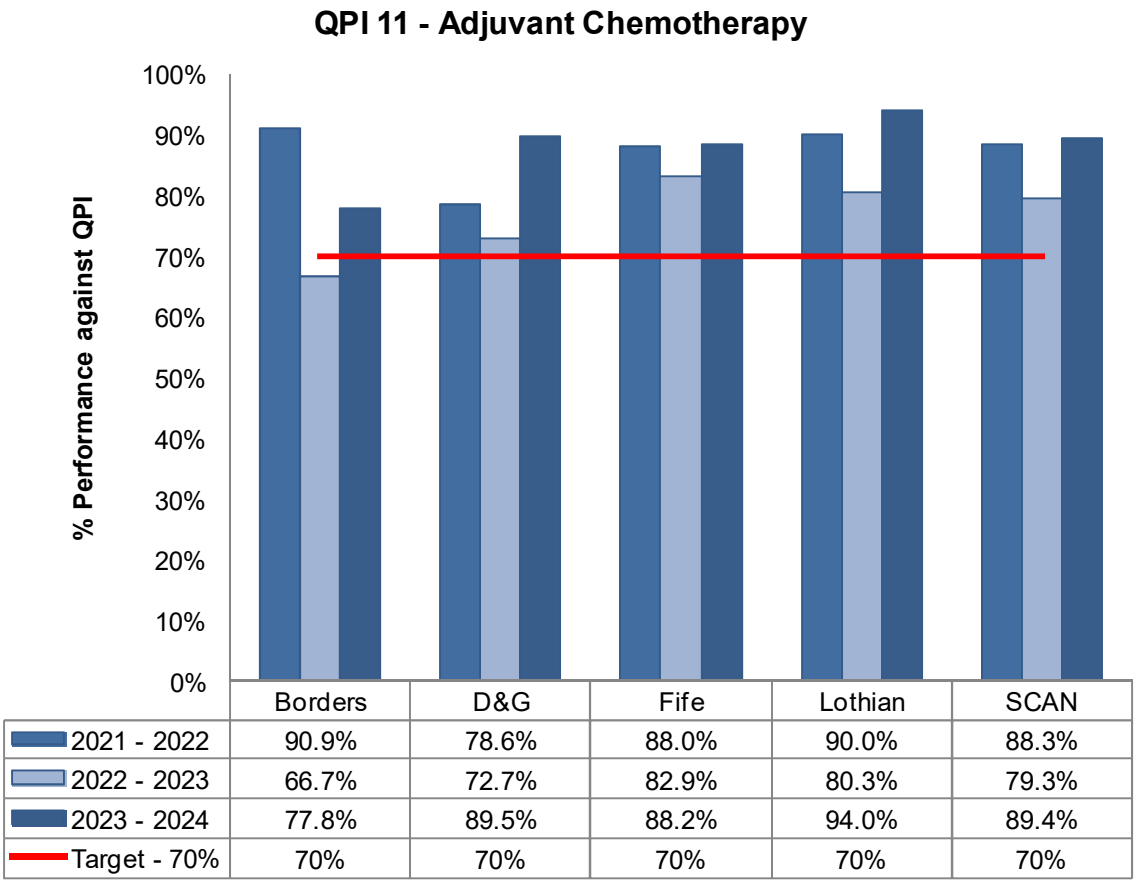
Numerator = Number of patients ≤74 years of age at diagnosis with stage III colorectal cancer who undergo surgical resection that receive adjuvant chemotherapy.

Denominator = All patients ≤74 years of age at diagnosis with stage III colorectal cancer who undergo surgical resection.

Exclusions = Patients who decline chemotherapy. Patients who undergo neo-adjuvant treatment.

Target 70%	Borders	D&G	Fife	Lothian	SCAN
2023-24 Cohort	74	139	239	571	**1023**
Ineligible for the QPI	58	120	222	521	**919**
Numerator	14	17	15	47	**93**
Not Recorded for the Numerator	0	0	0	1	**1**
Denominator	18	19	17	50	**104**
Not Recorded for Exclusions	0	0	0	0	**0**
Not Recorded for Denominator	0	1	0	0	**1**
% Percentage	77.8%	89.5%	88.2%	94.0%	**89.4%**

All Boards met this QPI



	Borders	D&G	Fife	Lothian	SCAN
2021 - 2022	90.9%	78.6%	88.0%	90.0%	88.3%
2022 - 2023	66.7%	72.7%	82.9%	80.3%	79.3%
2023 - 2024	77.8%	89.5%	88.2%	94.0%	89.4%
Target - 70%	70%	70%	70%	70%	70%

Comment: In previous years, NHS Borders and NHS Lothian had patients included in the denominator who died before adjuvant SACT could be discussed. It is felt that an additional exclusion be added to this QPI – Patients who die before SACT.

Addendum: PHS have been made aware of this issue and it will be discussed at the next Colorectal formal review (November 2024).

Oncology opinion has been sought on whether the age parameter in this QPI should be removed.

QPI 12 (i): 30 and 90 Day Mortality Following Radical Radiotherapy

Target = <1%

Numerator = Number of patients with colorectal cancer who undergo neo-adjuvant chemoradiotherapy or radiotherapy with curative intent who die within 30 days of treatment.

Denominator = All patients with colorectal cancer who undergo neo-adjuvant chemoradiotherapy or radiotherapy with curative intent.

Exclusions = No exclusions.

30 day mortality after neo-adjuvant chemoradiotherapy with curative intent

Target <1%	Borders	D&G	Fife	Lothian	SCAN
Numerator	0	0	0	0	**0**
Not Recorded for the Numerator	0	0	0	0	**0**
Denominator	1	1	5	8	**15**
Not Recorded for Exclusions	0	0	0	0	**0**
Not Recorded for Denominator	0	0	0	0	**0**
% Percentage	0.0%	0.0%	0.0%	0.0%	**0.0%**

90 day mortality after neo-adjuvant chemoradiotherapy with curative intent

Target <1%	Borders	D&G	Fife	Lothian	SCAN
Numerator	-	0	0	0	**0**
Not Recorded for the Numerator	-	0	0	0	**0**
Denominator	-	1	5	7	**13**
Not Recorded for Exclusions	-	0	0	0	**0**
Not Recorded for Denominator	-	0	0	0	**0**
% Percentage	-	0.0%	0.0%	0.0%	**0.0%**

QPI 12 (ii): 30 and 90 Day Mortality Following Radical Radiotherapy

Target = <1%

Numerator = Number of patients with colorectal cancer who undergo neo-adjuvant chemoradiotherapy or radiotherapy with curative intent who die within 90 days of treatment.

Denominator = All patients with colorectal cancer who undergo neo-adjuvant chemoradiotherapy or radiotherapy with curative intent.

Exclusions = No exclusions.

30 day mortality radiotherapy with curative intent

Target <1%	Borders	D&G	Fife	Lothian	SCAN
Numerator	-	0	0	0	**0**
Not Recorded for the Numerator	-	0	0	0	**0**
Denominator	-	2	9	19	**30**
Not Recorded for Exclusions	-	0	0	0	**0**
Not Recorded for Denominator	-	0	0	0	**0**
% Percentage	-	0.0%	0.0%	0.0%	**0.0%**

90 day mortality after radiotherapy with curative intent

Target <1%	Borders	D&G	Fife	Lothian	SCAN
Numerator	-	0	0	0	**0**
Not Recorded for the Numerator	-	0	0	0	**0**
Denominator	-	2	9	18	**29**
Not Recorded for Exclusions	-	0	0	0	**0**
Not Recorded for Denominator	-	0	0	0	**0**
% Percentage	-	0.0%	0.0%	0.0%	**0.0%**

Borders: No patients were eligible for this QPI

Comment: There was consensus by all SCAN Boards the radiotherapy section of the QPI should be dropped.

QPI 14: 30 Day Mortality following Systemic Anti-Cancer Therapy (SACT)

The regional cancer networks no longer report 30 Day mortality following SACT. This has recently been undertaken by Public Health Scotland (PHS) which published its first annual report in July 2022, using data collected on Chemocare: the national chemotherapy electronic prescribing and administration system. The latest report presents the number and percentage of patients treated in 2023 that died within 30 days of starting their last cycle of SACT, reported for NHS Scotland and the three regional cancer networks. The data has been made available in a dashboard on the PHS website:

30-day mortality after systemic anti-cancer therapy (SACT) - patients treated in 2023 - 30-day mortality after systemic anti-cancer therapy (SACT) - Publications - Public Health Scotland

QPI 15 (i): Colorectal Liver Metastasis

Target = 95%

Numerator = Number of patients with a new diagnosis of **synchronous** colorectal liver metastases who are referred to a HPB MDT.

Denominator = All patients with a new diagnosis of **synchronous** colorectal liver metastases.

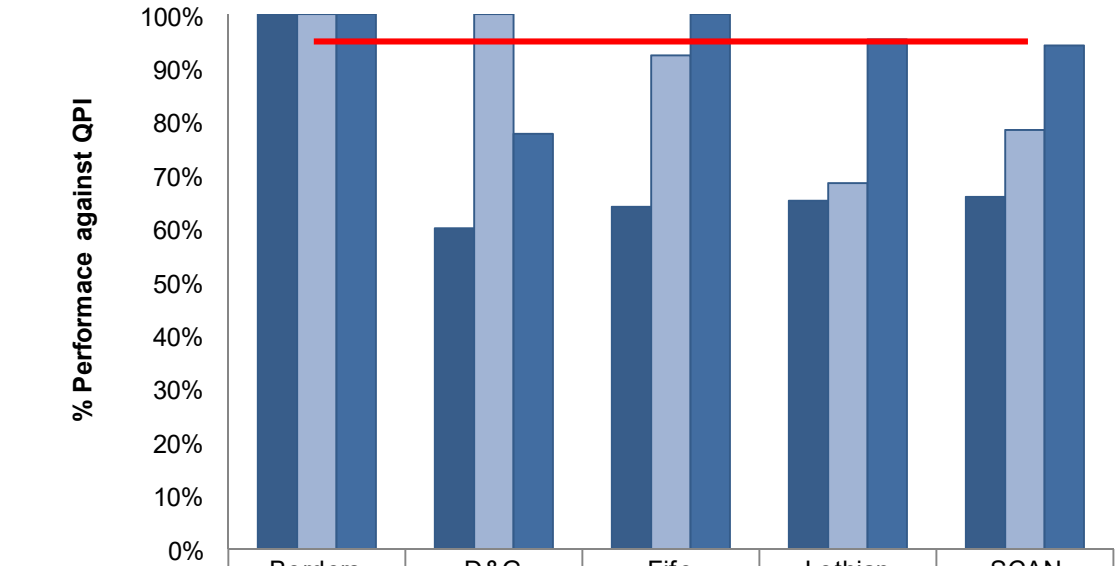
Exclusions = Patients in whom the primary colorectal cancer is unresectable. Patients with extrahepatic disease. Patients who are clinically unfit for surgery. Patients who decline consideration of surgery.

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2023-24 Cohort	74	139	239	571	**1023**
Ineligible for the QPI	69	130	226	527	**952**
Numerator	5	7	13	42	**67**
Not Recorded for the Numerator	0	0	0	0	**0**
Denominator	5	9	13	44	**71**
Not Recorded for Exclusions	0	0	0	0	**0**
Not Recorded for Denominator	0	0	0	0	**0**
% Percentage	100%	77.8%	100%	95.5%	**94.4%**

Comments where this QPI was not met:

D&G: The QPI target was not met showing a shortfall of 17.2% (2 cases). Both patients died before MDT discussion and, for an unidentified reason, were not listed for registration therefore no outcome recorded for HPB referral. Clinical team have been reminded of importance of listing deceased patients for registration.

QPI 15 - Colorectal Liver Metastases - Synchronous



	Borders	D&G	Fife	Lothian	SCAN
2021 - 2022	100%	60.0%	64.0%	65.3%	65.9%
2022 - 2023	100%	100%	92.3%	68.6%	78.6%
2023 - 2024	100%	77.8%	100%	95.5%	94.4%
Target - 95%	95%	95%	95%	95%	95%

QPI 15 (ii): Colorectal Liver Metastasis

Target = 95%

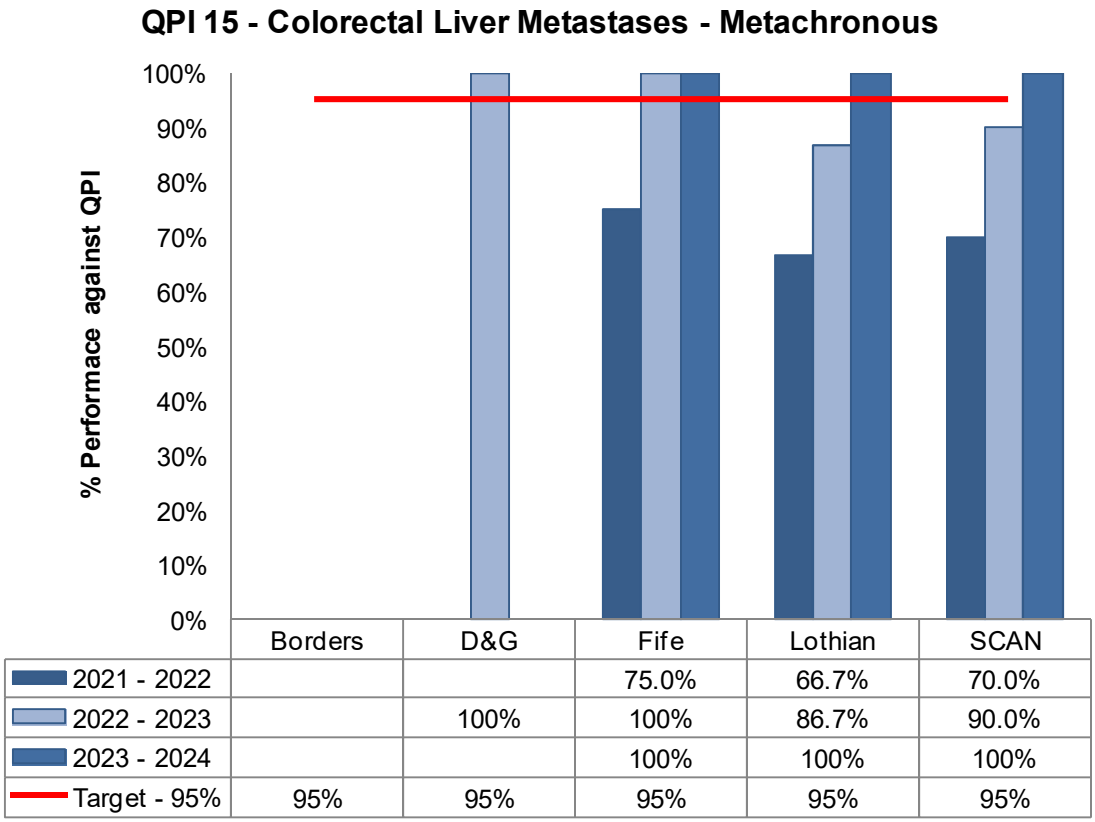
Numerator = Number of patients registered at a Colorectal Cancer MDT with a new diagnosis of **metachronous** colorectal liver metastases who are referred to a HPB MDT.

Denominator = All patients registered at a Colorectal Cancer MDT with a new diagnosis of **metachronous** colorectal liver metastases.

Exclusions = Patients in whom the primary colorectal cancer is unresectable. Patients with extrahepatic disease. Patients who are clinically unfit for surgery. Patients who decline consideration of surgery.

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2032-24 Cohort	74	139	239	571	**1023**
Ineligible for the QPI	74	139	230	553	**996**
Numerator	-	-	9	18	**27**
Not Recorded for the Numerator	-	-	0	0	**0**
Denominator	-	-	9	18	**27**
Not Recorded for Exclusions	-	-	0	0	**0**
Not Recorded for Denominator	-	-	0	0	**0**
% Percentage	-	-	100%	100%	**100%**

Borders: No patients were eligible for this QPI
D&G: No patients were eligible for this QPI



QPI 16 (i): Assessment of Mismatch Repair (MMR)/Microsatellite Instability (MSI) Status

Target = 95%

Numerator = Number of patients with colorectal cancer who have MMR/MSI status assessed.

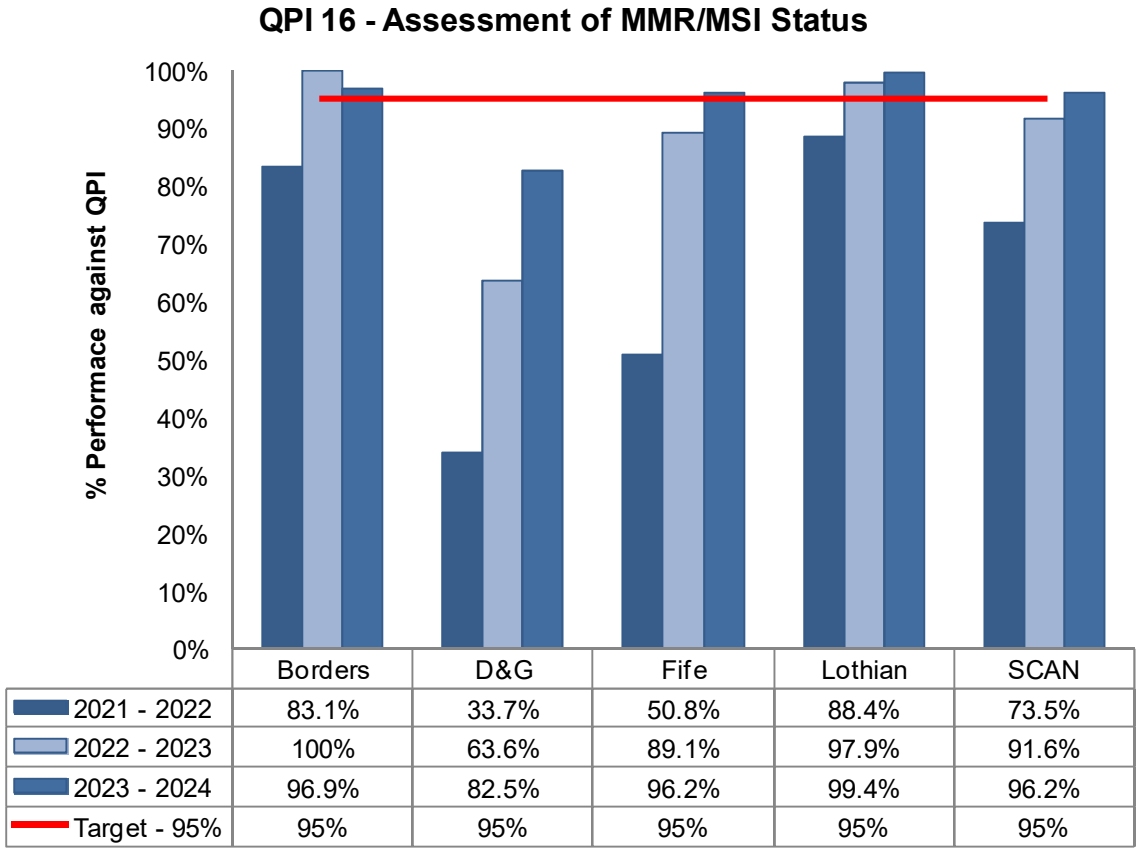
Denominator = All patients with colorectal cancer.

Exclusions = No exclusions.

Target 95%	Borders	D&G	Fife	Lothian	SCAN
2023-24 Cohort	74	139	239	571	**1023**
Ineligible for the QPI	9	19	31	80	**139**
Numerator	63	99	200	488	**850**
Not Recorded for the Numerator	0	0	0	0	**0**
Denominator	65	120	208	491	**884**
Not Recorded for Exclusions	0	0	0	0	**0**
Not Recorded for Denominator	0	0	0	0	**0**
% Percentage	96.9%	82.5%	96.2%	99.4%	**96.2%**

Comments where this QPI was not met:

D&G: The QPI target was not met showing a shortfall of 31.4% (39 cases) historically resection samples only were being sent for molecular tests. All biopsies are now being sent so expect improvement in the next year.



	Borders	D&G	Fife	Lothian	SCAN
2021 - 2022	83.1%	33.7%	50.8%	88.4%	73.5%
2022 - 2023	100%	63.6%	89.1%	97.9%	91.6%
2023 - 2024	96.9%	82.5%	96.2%	99.4%	96.2%
Target - 95%	95%	95%	95%	95%	95%

QPI 16 (ii): Assessment of Mismatch Repair (MMR)/Microsatellite Instability (MSI) Status

Target = 90%

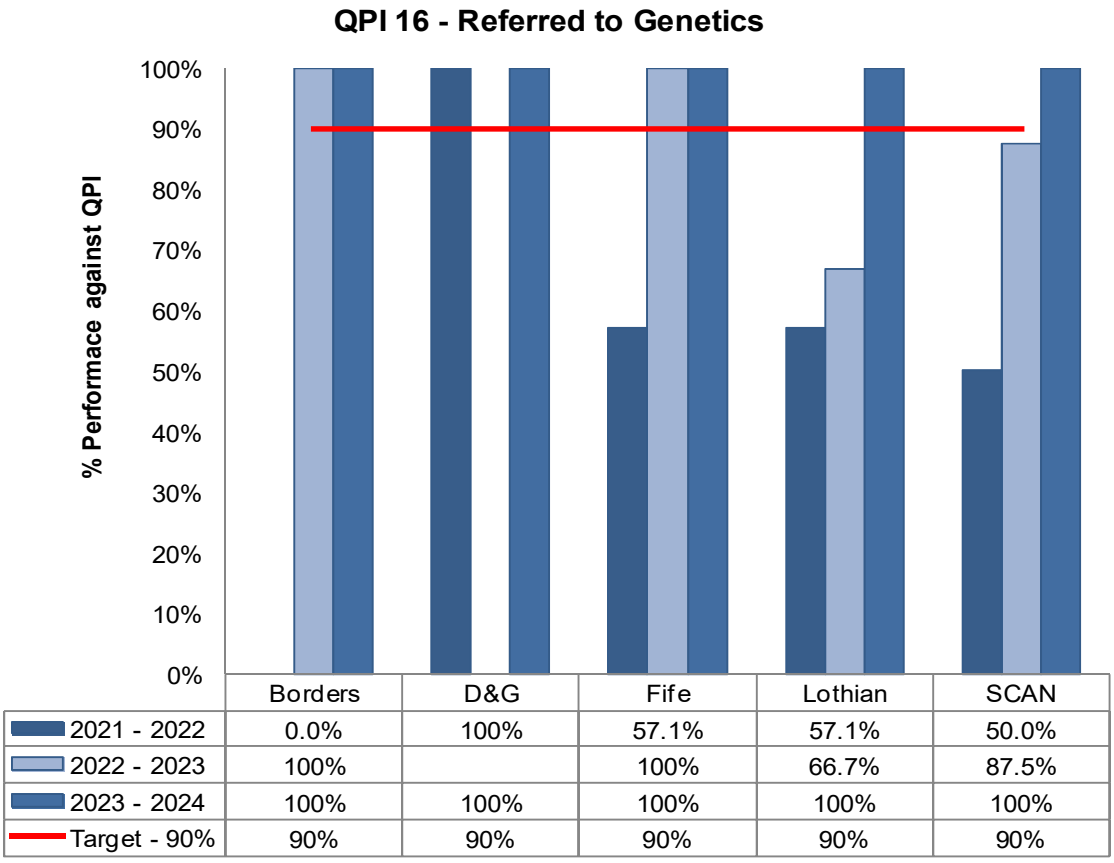
Numerator = Number of patients with colorectal cancer who have MMR/MSI status assessed and where the results are suggestive of Lynch Syndrome are referred to Genetics.

Denominator = All patients with colorectal cancer who have MMR/MSI status assessed where results are suggestive of Lynch Syndrome.

Exclusions = No exclusions.

Target 90%	Borders	D&G	Fife	Lothian	SCAN
2023-24 Cohort	74	139	239	571	**1023**
Ineligible for the QPI	73	138	237	564	**1012**
Numerator	1	1	2	7	**11**
Not Recorded for the Numerator	0	0	0	0	**0**
Denominator	1	1	2	7	**11**
Not Recorded for Exclusions	0	0	0	0	**0**
Not Recorded for Denominator	2	0	0	0	**2**
% Percentage	100%	100%	100%	100%	**100%**

All Boards met this QPI



	Borders	D&G	Fife	Lothian	SCAN
2021 - 2022	0.0%	100%	57.1%	57.1%	50.0%
2022 - 2023	100%		100%	66.7%	87.5%
2023 - 2024	100%	100%	100%	100%	100%
Target - 90%	90%	90%	90%	90%	90%

Comment: Since introduction of testing for all patients diagnosed with colorectal cancer adherence to this QPI has improved. Introduction of a dedicated meeting to discuss patients with possible Lynch syndrome and subsequent referral to Clinical Genetics has resulted in a greatly increased rate of referral and this QPI is now met.

KEY CATEGORIES

Table 1: Rectal v Other Colorectal Patients, percentage of patients undergoing Surgery

	Number of Patients Diagnosed	All patients who had surgery		Number of patients diagnosed with rectal cancer		Number of patients diagnosed with rectal cancer who had surgery	
Borders	74	52	70.3%	14	18.9%	10	71.4%
D&G	139	105	75.5%	40	28.8%	29	72.5%
Fife	239	182	76.2%	55	23.0%	41	74.5%
Lothian	571	443	77.6%	144	25.2%	108	75.0%
SCAN	**1023**	**782**	**76.4%**	**253**	**24.7%**	**188**	**74.3%**

Table 2: Rectal v Other Colorectal Patients, percentage of patients undergoing definitive Surgery
(Excluding non definitive surgery – Endoscopic Treatment/Stents/Defunctioning Stomas/Bypass Surgery)

	Number of Patients Diagnosed	All patients who had definitive surgery		Number of patients diagnosed with rectal cancer		Number of patients diagnosed with rectal cancer who had definitive surgery	
Borders	74	50	67.6%	14	18.9%	9	64.3%
D&G	139	94	67.6%	40	28.8%	22	55.0%
Fife	239	152	63.6%	55	23.0%	35	63.6%
Lothian	571	362	63.4%	144	25.2%	70	48.6%
SCAN	**1023**	**658**	**64.3%**	**253**	**24.7%**	**136**	**53.8%**

Table 3: Emergency v Elective Surgery
(Excluding non definitive surgery – Endoscopic Treatment/Stents/Defunctioning Stomas/Bypass Surgery)

	All patients who had definitive surgery	Elective		Emergency		Inapplicable		Missing Data	
Borders	50	45	90.0%	5	10.0%	0	0.0%	0	0.0%
D&G	94	81	86.2%	13	13.8%	0	0.0%	0	0.0%
Fife	152	138	90.8%	14	9.2%	0	0.0%	0	0.0%
Lothian	362	299	82.6%	63	17.4%	0	0.0%	0	0.0%
SCAN	**658**	**563**	**85.6%**	**95**	**14.4%**	**0**	**0.0%**	**0**	**0.0%**

Table 4: Rectal Cancer Patients Emergency v Elective Surgery
(Excluding non definitive surgery – Endoscopic Treatment/Stents/Defunctioning Stomas/Bypass Surgery)

	All patients diagnosed with rectal cancer who had definitive surgery	Elective		Emergency		Not Recorded		Missing Data	
Borders	9	9	100%	0	0.0%	0	0.0%	0	0.0%
D&G	22	21	95%	1	4.5%	0	0.0%	0	0.0%
Fife	35	34	97.1%	1	2.9%	0	0.0%	0	0.0%
Lothian	70	70	100%	0	0.0%	0	0.0%	0	0.0%
SCAN	**136**	**134**	**98.5%**	**2**	**1.5%**	**0**	**0.0%**	**0**	**0.0%**

Table 5: Intent of Surgery – All Patients
(Excluding non definitive surgery – Endoscopic Treatment/Stents/Defunctioning Stomas/Bypass Surgery)

	All patients who had definitive Surgery	Curative		Palliative		Not Recorded		Missing Data	
Borders	50	49	98.0%	1	2.0%	0	0.0%	0	0.0%
D&G	94	89	94.7%	5	5.3%	0	0.0%	0	0.0%
Fife	152	140	92.1%	12	7.9%	0	0.0%	0	0.0%
Lothian	362	329	90.9%	33	9.1%	0	0.0%	0	0.0%
SCAN	**658**	**607**	**92.2%**	**51**	**7.8%**	**0**	**0.0%**	**0**	**0.0%**

Table 6: Intent of Surgery – Rectal Cancer
N=All patients diagnosed with rectal cancer who had definitive surgery
(Excluding non definitive surgery – Endoscopic Treatment/Stents/Defunctioning Stomas/Bypass Surgery)

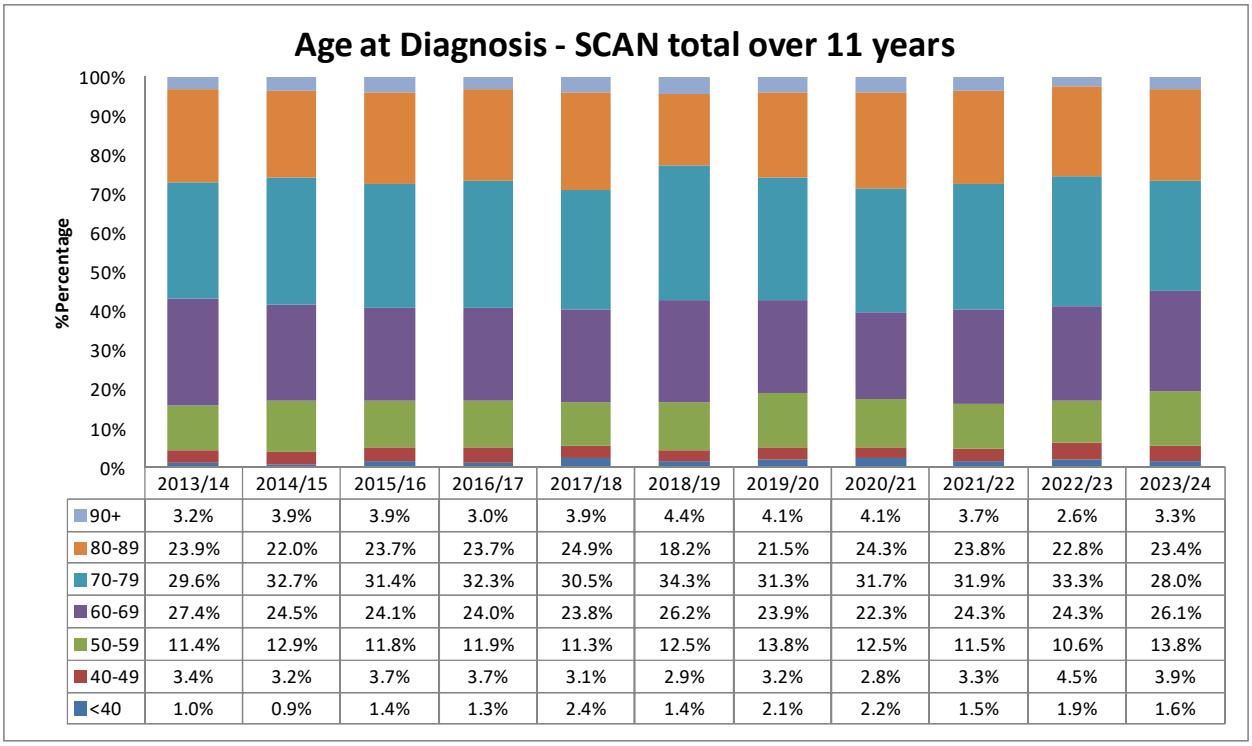
	All patients diagnosed with rectal cancer who had definitive surgery	Curative		Palliative		Not Recorded		Missing Data	
Borders	9	9	100%	0	0.0%	0	0.0%	0	0.0%
D&G	22	22	100%	0	0.0%	0	0.0%	0	0.0%
Fife	35	35	100%	0	0.0%	0	0.0%	0	0.0%
Lothian	70	69	98.6%	1	1.4%	0	0.0%	0	0.0%
SCAN	**136**	**135**	**99.3%**	**1**	**0.7%**	**0**	**0.0%**	**0**	**0.0%**

Table 7: Gender
N= All patients diagnosed

	Total Patients Diagnosed	Male		Female	
Borders	74	36	48.6%	38	51.4%
D&G	139	79	56.8%	60	43.2%
Fife	239	124	51.9%	115	48.1%
Lothian	571	296	51.8%	275	48.2%
SCAN	**1023**	**535**	**52.3%**	**489**	**47.8%**

Table 8: Age at Diagnosis
N=All patients diagnosed

Age	Borders		D&G		Fife		Lothian		SCAN	
<40	0	0.0%	1	0.7%	3	1.3%	12	2.1%	16	1.6%
40-49	7	9.5%	3	2.2%	6	2.5%	24	4.2%	40	3.9%
50-59	14	18.9%	14	10.1%	40	16.7%	73	12.8%	141	13.8%
60-69	17	23.0%	36	25.9%	66	27.6%	148	25.9%	267	26.1%
70-79	20	27.0%	42	30.2%	59	24.7%	165	28.9%	286	28.0%
80-89	16	21.6%	39	28.1%	55	23.0%	129	22.6%	239	23.4%
90+	0	0.0%	4	2.9%	10	4.2%	20	3.5%	34	3.3%
Total	**74**	**100%**	**139**	**100%**	**239**	**100%**	**571**	**100%**	**1023**	**100%**



	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
90+	3.2%	3.9%	3.9%	3.0%	3.9%	4.4%	4.1%	4.1%	3.7%	2.6%	3.3%
80-89	23.9%	22.0%	23.7%	23.7%	24.9%	18.2%	21.5%	24.3%	23.8%	22.8%	23.4%
70-79	29.6%	32.7%	31.4%	32.3%	30.5%	34.3%	31.3%	31.7%	31.9%	33.3%	28.0%
60-69	27.4%	24.5%	24.1%	24.0%	23.8%	26.2%	23.9%	22.3%	24.3%	24.3%	26.1%
50-59	11.4%	12.9%	11.8%	11.9%	11.3%	12.5%	13.8%	12.5%	11.5%	10.6%	13.8%
40-49	3.4%	3.2%	3.7%	3.7%	3.1%	2.9%	3.2%	2.8%	3.3%	4.5%	3.9%
<40	1.0%	0.9%	1.4%	1.3%	2.4%	1.4%	2.1%	2.2%	1.5%	1.9%	1.6%

Table 9: Age at Diagnosis by Sex
N=All patients diagnosed

Age at Diagnosis	Borders		D&G		Fife		Lothian		SCAN	
	M	F	M	F	M	F	M	F	M	F
<45	1	3	3	0	2	5	9	13	**15**	**21**
45-49	1	2	1	0	0	2	8	6	**10**	**10**
50-54	3	2	2	1	7	9	14	14	**26**	**26**
55-59	4	5	6	5	13	11	22	23	**45**	**44**
60-64	3	5	5	12	15	8	40	37	**63**	**62**
65-69	5	4	13	6	24	19	40	31	**82**	**60**
70-74	5	5	9	13	13	11	58	39	**85**	**68**
75-79	6	4	11	9	16	19	37	30	**70**	**62**
80-84	7	4	14	5	19	15	33	39	**73**	**63**
85+	1	4	15	9	15	16	35	43	**66**	**72**
Total	36	38	79	60	124	115	296	275	**535**	**488**

Table 10: Mode of Referral

n=All colorectal cancer patients

	Borders		D&G		Fife		Lothian		SCAN	
Primary Care (GP, Nurse)	44	59.5%	70	50.4%	104	43.5%	246	43.1%	**464**	**45.4%**
Screening Service	20	27.0%	29	20.9%	50	20.9%	121	21.2%	**220**	**21.5%**
Incidental finding	1	1.4%	29	20.9%	18	7.5%	84	14.7%	**132**	**12.9%**
Review Clinic	0	0.0%	6	4.3%	24	10.0%	12	2.1%	**42**	**4.1%**
Cancer Genetic Clinic	0	0.0%	0	0.0%	0	0.0%	1	0.2%	**1**	**0.1%**
Self-referral to A&E	9	12.2%	4	2.9%	8	3.3%	50	8.8%	**71**	**6.9%**
GP directly to hospital	0	0.0%	1	0.7%	28	11.7%	31	5.4%	**60**	**5.9%**
Previous GP referral but subsequently admitted to hospital	0	0.0%	0	0.0%	3	1.3%	16	2.8%	**19**	**1.9%**
Referral from private healthcare	0	0.0%	0	0.0%	0	0.0%	8	1.4%	**8**	**0.8%**
Other	0	0.0%	0	0.0%	4	1.7%	2	0.4%	**6**	**0.6%**
Not Recorded	0	0.0%	0	0.0%	0	0.0%	0	0.0%	**0**	**0.0%**
Total	74	100%	139	100%	239	100%	571	100%	**1023**	**100%**

Table 11: Tumour Site

N=All patients diagnosed

Site of Tumour	Borders		D&G		Fife		Lothian		SCAN	
Ascending Colon	14	18.9%	14	10.1%	36	15.1%	74	13.0%	**138**	**13.5%**
Caecum	11	14.9%	24	17.3%	29	12.1%	101	17.7%	**165**	**16.1%**
Colon, unspecified	1	1.4%	2	1.4%	1	0.4%	2	0.4%	**6**	**0.6%**
Descending Colon	2	2.7%	4	2.9%	19	7.9%	18	3.2%	**43**	**4.2%**
Hepatic Flexure	2	2.7%	7	5.0%	7	2.9%	19	3.3%	**35**	**3.4%**
Rectum	14	18.9%	40	28.8%	55	23.0%	144	25.2%	**253**	**24.7%**
Sigmoid Colon	13	17.6%	33	23.7%	72	30.1%	125	21.9%	**243**	**23.8%**
Splenic Flexure	1	1.4%	3	2.2%	6	2.5%	7	1.2%	**17**	**1.7%**
Transverse Colon	5	6.8%	9	6.5%	14	5.9%	52	9.1%	**80**	**7.8%**
Overlapping Lesion	11	14.9%	3	2.2%	0	0.0%	29	5.1%	**43**	**4.2%**
Not Recorded	0	0.0%	0	0.0%	0	0.0%	0	0.0%	**0**	**0.0%**
Missing Data	0	0.0%	0	0.0%	0	0.0%	0	0.0%	**0**	**0.0%**
Total	74	100%	139	100%	239	100%	571	100%	**1023**	**100%**

Table 12: Cancer Stage
N=All patients (final staging as reported by the Colorectal MDM)

	Borders		D&G		Fife		Lothian		SCAN	
Stage I	8	10.8%	26	18.7%	66	27.6%	138	24.2%	**238**	**23.3%**
Stage II	17	23.0%	22	15.8%	52	21.8%	136	23.8%	**227**	**22.2%**
Stage III	23	31.1%	37	26.6%	49	20.5%	117	20.5%	**226**	**22.1%**
Stage IV	7	9.5%	8	5.8%	51	21.3%	130	22.8%	**196**	**19.2%**
Not Applicable	0	0.0%	2	1.4%	21	8.8%	48	8.4%	**71**	**6.9%**
Not Recorded	19	25.7%	44	31.7%	0	0.0%	2	0.4%	**65**	**6.4%**
Total	74	100%	139	100%	239	100%	571	100%	**1023**	**100%**

This table has been updated from previous reports to account for the move from TNM 5 to TNM 8 Colorectal Cancer Staging.

Table 13: Clinical Stage IV
N=All patients diagnosed **presenting** with Final M1 Stage of disease at presentation

Patients presenting with Clinical Stage IV disease	Borders		D&G		Fife		Lothian		SCAN	
Metastatic Disease	7	9.5%	8	5.8%	40	16.7%	130	22.8%	**185**	**18.1%**
No Metastatic Disease	48	64.9%	85	61.2%	199	83.3%	417	73.0%	**749**	**73.2%**
Cannot Determine	0	0.0%	0	0.0%	0	0.0%	9	1.6%	**9**	**0.9%**
Not Recorded	19	25.7%	46	33.1%	0	0.0%	14	2.5%	**79**	**7.7%**
Missing Data	0	0.0%	0	0.0%	0	0.0%	1	0.2%	**1**	**0.1%**
Total	74	100%	139	100%	239	100%	571	100%	**1023**	**100%**

Table 14: Clinical Stage IV – SCAN yearly %Totals

SCAN Patients presenting with Clinical Stage IV disease	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Metastatic Disease	24.0%	18.8%	22.2%	16.4%	22.8%	19.1%	18.9%	18.1%
No Metastatic Disease	65.8%	72.2%	74.3%	78.0%	70.9%	69.1%	75.8%	73.2%
Cannot Determine	8.8%	4.6%	0.7%	2.8%	4.5%	5.9%	0.4%	0.9%
Not Recorded	1.2%	0.7%	2.8%	0.8%	1.8%	5.9%	4.9%	7.7%
Missing Data	0.2%	4.8%	0.0%	2.0%	0.1%	0.0%	0.0%	0.1%

Table 15: Radiotherapy
N = All patients diagnosed with **rectal cancer** who received Radiotherapy or Chemoradiotherapy

	Borders		D&G		Fife		Lothian		SCAN	
Neo-adjuvant single therapy	0	0.0%	1	50.0%	7	36.8%	10	22.2%	**18**	**26.5%**
Neo-adjuvant combined therapy	0	0.0%	0	0.0%	5	26.3%	7	15.6%	**12**	**17.6%**
Neo-adjuvant Long Course RT only	0	0.0%	0	0.0%	0	0.0%	1	2.2%	**1**	**1.5%**
Neo-adjuvant Radiotherapy-Chemotherapy (RAPIDO approach)	1	50.0%	1	50.0%	2	10.5%	9	20.0%	**13**	**19.1%**
Primary radical	0	0.0%	0	0.0%	0	0.0%	2	4.4%	**2**	**2.9%**
Adjuvant only	0	0.0%	0	0.0%	0	0.0%	0	0.0%	**0**	**0.0%**
Palliative	1	50.0%	0	0.0%	5	26.3%	14	31.1%	**20**	**29.4%**
Not Recorded	0	0.0%	0	0.0%	0	0.0%	1	2.2%	**1**	**1.5%**
Total	2	100%	2	100%	19	100%	45	100%	**68**	**100%**

Table 16: Chemotherapy
N=All patients who receive Chemotherapy or Chemoradiotherapy

	Borders		D&G		Fife		Lothian		SCAN	
Neo-adjuvant Combined therapy	0	0.0%	0	0.0%	5	6.0%	7	4.7%	**12**	**4.0%**
Palliative Combined therapy	0	0.0%	0	0.0%	0	0.0%	0	0.0%	**0**	**0.0%**
Neo-adjuvant Chemotherapy	1	3.7%	7	17.5%	14	16.7%	11	7.4%	**33**	**11.0%**
Neo-adjuvant Radiotherapy-Chemotherapy (RAPIDO approach)	1	3.7%	1	2.5%	2	2.4%	9	6.1%	**13**	**4.3%**
Primary Chemotherapy	0	0.0%	0	0.0%	0	0.0%	0	0.0%	**0**	**0.0%**
Palliative Chemotherapy	7	25.9%	3	7.5%	21	25.0%	38	25.7%	**69**	**23.1%**
Adjuvant Chemotherapy	18	66.7%	29	72.5%	42	50.0%	82	55.4%	**171**	**57.2%**
Not Recorded	0	0.0%	0	0.0%	0	0.0%	1	0.7%	**1**	**0.7%**
Total	27	100%	40	100%	84	100%	148	100%	**299**	**100%**

Table 17: Staging - Screened Patients v Non-Screened Patients
N=All colorectal patients

	Borders		D&G		Fife		Lothian		SCAN	
SCREENED PATIENTS										
Stage I	4	20.0%	10	34.5%	25	50.0%	52	43.0%	**91**	41.4%
Stage II	6	30.0%	5	17.2%	11	22.0%	31	25.6%	**53**	24.1%
Stage III	9	45.0%	9	31.0%	8	16.0%	25	20.7%	**51**	23.2%
Stage IV	1	25.0%	1	3.4%	6	12.0%	11	9.1%	**19**	8.6%
Not Applicable	0	0.0%	0	0.0%	0	0.0%	1	0.8%	**1**	0.5%
Not Recorded	0	0.0%	4	13.8%	0	0.0%	1	0.8%	**5**	2.3%
Total - Screened	20		29		50		121		**220**	
NON-SCREENED PATIENTS										
Stage I	4	7.4%	16	14.5%	41	21.7%	82	18.2%	**143**	17.8%
Stage II	11	20.4%	17	15.5%	41	21.7%	96	21.3%	**165**	20.5%
Stage III	14	25.9%	28	25.5%	41	21.7%	90	20.0%	**173**	21.5%
Stage IV	6	11.1%	7	6.4%	45	23.8%	118	26.2%	**176**	21.9%
Not Applicable	0	0.0%	2	1.8%	20	10.6%	46	10.2%	**68**	8.5%
Not Recorded	19	35.2%	40	36.4%	1	0.5%	18	4.0%	**78**	9.7%
Total - Non-screened	54		110		189		450		**803**	
TOTAL PATIENTS	**74**		**139**		**239**		**571**		**1023**	

Table 18: Type of First Cancer Treatment
N=All colorectal patients

	Borders		D&G		Fife		Lothian		SCAN	
Surgery	50	67.6%	97	69.8%	137	57.3%	353	61.8%	**637**	**62.3%**
Radiotherapy	1	1.4%	0	0.0%	11	4.6%	29	5.1%	**41**	**4.0%**
Chemoradiotherapy	1	1.4%	1	0.7%	4	1.7%	5	0.9%	**11**	**1.1%**
SACT	5	6.8%	6	4.3%	22	9.2%	24	4.2%	**57**	**5.6%**
Radical Endoscopic (e.g. EMR)	2	2.7%	5	3.6%	25	10.5%	52	9.1%	**84**	**8.2%**
Palliative Endoscopic (e.g. stent)	0	0.0%	0	0.0%	1	0.4%	21	3.7%	**22**	**2.2%**
Other therapy	0	0.0%	0	0.0%	0	0.0%	0	0.0%	**0**	**0.0%**
Supportive Care only	14	18.9%	25	18.0%	31	13.0%	54	9.5%	**124**	**12.1%**
Patient died before treatment	0	0.0%	1	0.7%	1	0.4%	14	2.5%	**16**	**1.6%**
Patient refused treatment	1	1.4%	4	2.9%	6	2.5%	19	3.3%	**30**	**2.9%**
Not Recorded	0	0.0%	0	0.0%	1	0.4%	0	0.0%	**1**	**1.6%**
Total	74	100%	139	100%	239	100%	571	100%	**1023**	**100%**

Table 19: Surgical Approach
N=All colorectal cancer patients undergoing surgery

	Borders		D&G		Fife		Lothian		SCAN	
Laparoscopic	41	78.8%	54	51.4%	43	23.6%	162	36.6%	**300**	**38.4%**
Laparoscopic converted to Open	1	1.9%	21	20.0%	6	3.3%	40	9.0%	**68**	**8.7%**
Open	8	15.4%	23	21.9%	38	20.9%	96	21.7%	**165**	**21.1%**
Transanal Endoscopic Microsurgery	1	1.9%	0	0.0%	0	0.0%	17	3.8%	**18**	**2.3%**
Transanal Resection of Tumour	0	0.0%	0	0.0%	1	0.5%	2	0.5%	**3**	**0.4%**
Robotic	0	0.0%	0	0.0%	70	38.5%	71	16.0%	**141**	**18.0%**
Robotic converted to Open	0	0.0%	0	0.0%	1	0.5%	3	0.7%	**4**	**0.5%**
Endoscopic	1	1.9%	7	6.7%	23	12.6%	49	11.1%	**80**	**10.2%**
Not Recorded	0	0.0%	0	0.0%	0	0.0%	3	0.7%	**3**	**0.4%**
Total	52	100%	105	100%	182	100%	443	100%	**782**	**100%**

Table 20: Grade of Differentiation
N= All colorectal cancer patients

	Borders		D&G		Fife		Lothian		SCAN	
Well/Moderate	37	50.0%	78	56.1%	156	65.3%	337	59.0%	**608**	**59.4%**
Poor	13	17.6%	36	25.9%	30	12.6%	110	19.3%	**189**	**18.5%**
Not applicable (Mucinous or other special type)	0	0.0%	0	0.0%	19	7.9%	22	3.9%	**41**	**4.0%**
Not applicable (No path available)	24	32.4%	21	15.1%	29	12.1%	79	13.8%	**153**	**15.0%**
Not Recorded	0	0.0%	4	2.9%	5	2.1%	23	4.0%	**32**	**3.1%**
Total	74	100%	139	100%	239	100%	571	100%	**1023**	**100%**

Table 21: EMR/TEMS/TAMIS Resection
N= all patients having endoscopic mode of first treatment (excluding colonic stents)

	Borders		D&G		Fife		Lothian		SCAN	
Endoscopic Mucosal Resection	2		5		25		31		**63**	
EMR followed by definitive Surgery	0	0.0%	0	0.0%	6	24.0%	13	41.9%	**19**	**30.2%**
TEMS resection	0		0		0		5		**5**	
TEMS followed by definitive surgery	0	0.0%	0	0.0%	0	0.0%	1	20.0%	**1**	**20.0%**
TAMIS resection	0		0		5		0		**5**	
TAMIS followed by definitive surgery	0	0.0%	0	0.0%	1	20.0%	0	0.0%	**1**	**20.0%**

Table 22: Permanent Stoma rate is not more than 40% in patients with rectal tumours
(Old QIS Standard 8b1)

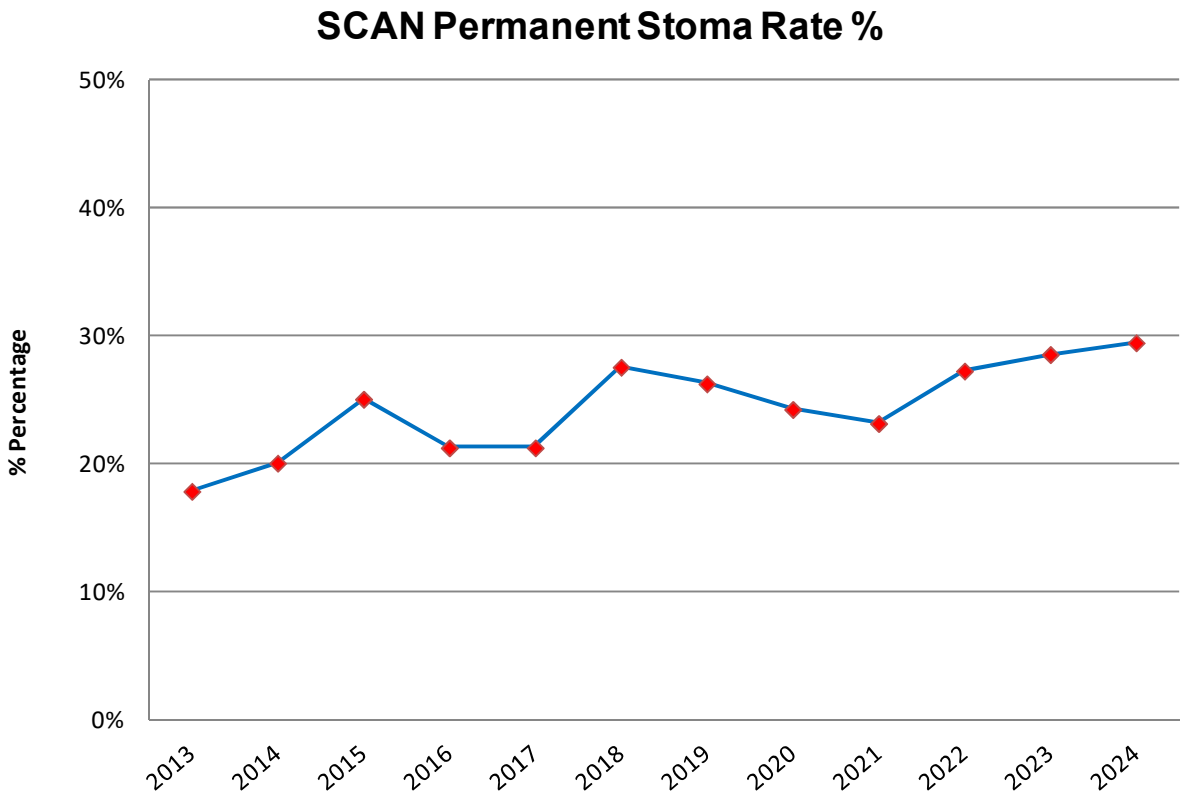
In many cases it is not possible to tell if a stoma is permanent until a number of years have passed. For the purposes of this report, a stoma is defined as permanent only for those procedures (abdominoperineal resection and colostomy and panproctocolectomy and ileostomy) which the stoma was fashioned with the intention of being permanent.

N= All Rectal Cancer patients undergoing elective surgery excluding non-definitive surgery

	Borders		D&G		Fife		Lothian		SCAN	
All Rectal Cancer patients undergoing elective Surgery	9		22		35		**70**		**136**	
Patients undergoing APER with Colostomy OR Panproctocolectomy with ileostomy left with a permanent stoma	4	44.4%	6	27.3%	12	34.3%	18	25.7%	**40**	**29.4%**

Table 23: SCAN %Permanent Stoma rates

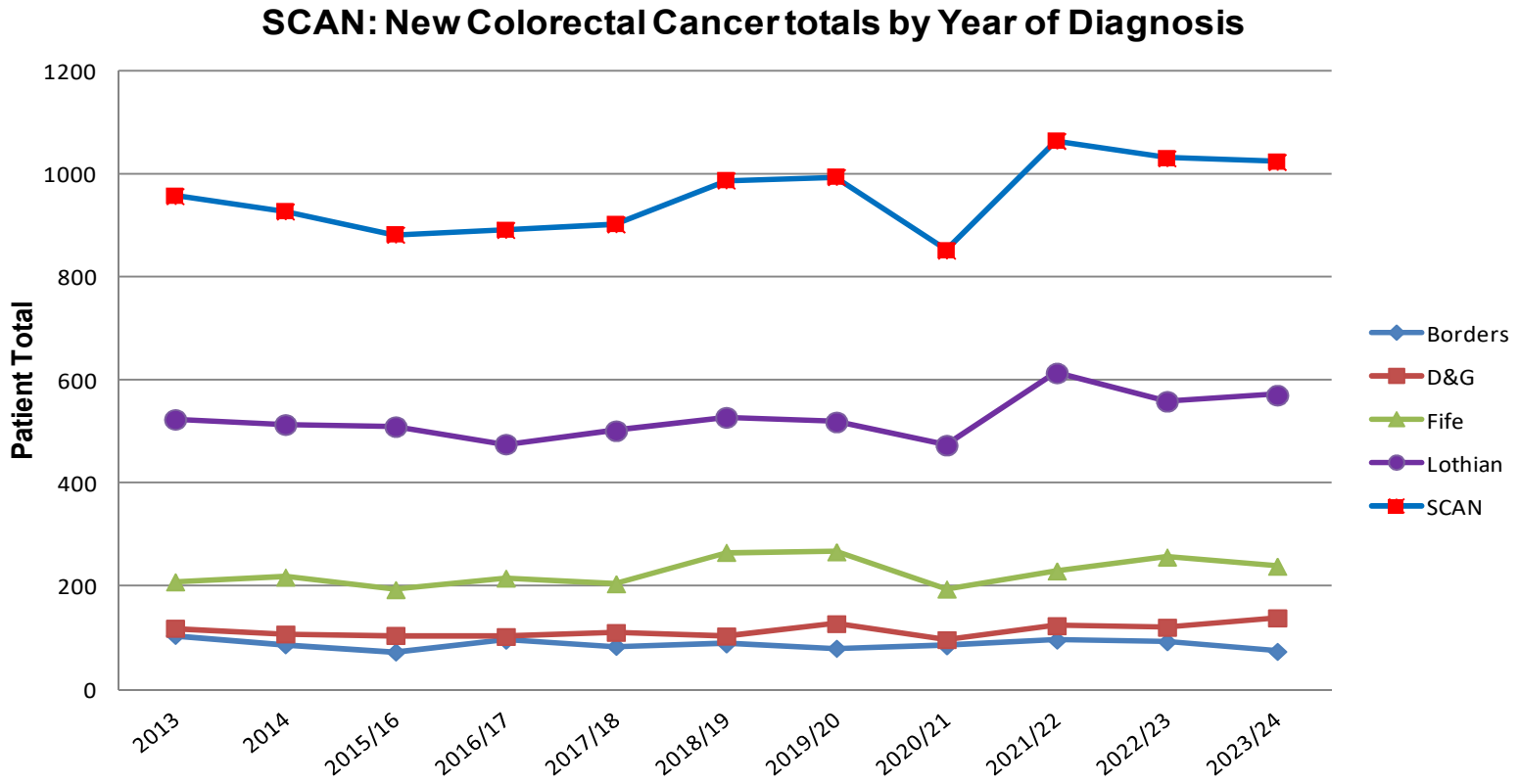
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
SCAN	17.8%	20.0%	25.0%	21.2%	21.2%	27.5%	26.2%	24.2%	23.1%	27.2%	28.5%	29.4%



SCAN: New Colorectal Cancer totals by Year of Diagnosis

Note: Totals reflect collection of data by calendar year until 2015 when period of audit changed to financial year

	2013	2014	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Borders	105	87	73	96	84	89	80	85	99	94	74
D&G	119	108	105	103	111	104	128	97	126	121	139
Fife	209	218	194	216	205	266	267	195	237	256	239
Lothian	524	514	510	476	502	528	519	474	614	559	571
SCAN	**957**	**927**	**882**	**891**	**902**	**987**	**994**	**851**	**1076**	**1030**	**1023**



CRC QPI Attainment Summary 2022-2023		Target%	Borders		D&G		Fife		Lothian		SCAN	
1. Radiological Staging & Diagnosis	Colon	95	N 42 D 43	97.7%	N 52 D 53	98.1%	N 121 D 122	99.2%	N 217 D 219	99.1%	N 432 D 437	98.9%
	Rectum	95	N 13 D 13	100%	N 13 D 14	92.9%	N 41 D 41	100%	N 79 D 82	96.3%	N 146 D 150	97.3%
2. Pre-operative imaging of the Colon		95	N 46 D 50	92.0%	N 61 D 62	98.4%	N 127 D 134	94.8%	N 253 D 275	92.0%	N 487 D 521	93.5%
5. Lymph Node Yield: surgical resection where ≥12 lymph nodes		90	N 44 D 55	80.0%	N 71 D 72	98.6%	N 118 D 150	78.7%	N 286 D 321	89.1%	N 519 D 598	86.8%
7. Surgical Margins	Primary surgery or surgery after short course XRT	95	N 9 D 10	90.0%	N 13 D 13	100%	N 25 D 28	89.3%	N 66 D 68	97.1%	N 113 D 119	95.0%
	After NACT, or long course XRT ± chemo, or short course XRT with long course intent	85	N 3 D 3	100%	N - D -	-	N 13 D 15	86.7%	N 13 D 15	86.7%	N 29 D 33	87.9%
8. Re-operation Rates		<10	N 3 D 56	5.4%	N 3 D 77	3.9%	N 8 D 171	4.7%	N 16 D 373	4.3%	N 30 D 677	4.4%
9. Anastomotic Dehiscence	Colon	<5	N 2 D 21	9.5%	N 0 D 40	0.0%	N 1 D 76	1.3%	N 5 D 158	3.2%	N 8 D 295	2.7%
	Rectum incl. TME	<10	N 0 D 21	0.0%	N 0 D 11	0.0%	N 4 D 70	5.7%	N 10 D 148	6.8%	N 14 D 250	5.6%
10 (i). 30 day mortality following surgical resection	Elective	<3	N 2 D 49	4.1%	N 0 D 65	0.0%	N 1 D 154	0.6%	N 5 D 295	1.7%	N 8 D 563	1.4%
	Emergency	<15	N 1 D 7	14.3%	N 0 D 12	0.0%	N 1 D 18	5.6%	N 5 D 76	6.6%	N 7 D 113	6.2%
10 (ii). 90 day mortality following surgical resection	Elective	<4	N 2 D 46	4.3%	N 0 D 65	0.0%	N 3 D 145	2.1%	N 8 D 291	2.7%	N 13 D 547	2.4%
	Emergency	<20	N 1 D 7	14.3%	N 1 D 12	8.3%	N 1 D 18	5.6%	N 10 D 76	13.2%	N 13 D 113	11.5%
11. Adjuvant Chemotherapy		70	N 6 D 9	66.7%	N 8 D 11	72.7%	N 29 D 35	82.9%	N 53 D 66	80.3%	N 96 D 121	79.3%

CRC QPI Attainment Summary 2022-2023		Target%	Borders		D&G		Fife		Lothian		SCAN	
12 (i). 30 day Mortality following Radical Radiotherapy	Neo-adjuvant CXRT	<1	N 0 D 3	0.0%	N - D -	-	N 0 D 8	0.0%	N 0 D 11	0.0%	N 0 D 22	0.0%
	Radiotherapy	<1	N 0 D 5	0.0%	N 0 D 2	0.0%	N 0 D 14	0.0%	N 0 D 20	0.0%	N 0 D 41	0.0%
12 (ii). 90 day Mortality following Radical Radiotherapy	Neo-adjuvant CXRT	<1	N 0 D 3	0.0%	N - D -	-	N 0 D 8	0.0%	N 0 D 10	0.0%	N 0 D 21	0.0%
	Radiotherapy	<1	N 0 D 5	0.0%	N 0 D 2	0.0%	N 0 D 13	0.0%	N 0 D 20	0.0%	N 0 D 40	0.0%
14. 30 day Mortality following SACT	Curable	<1	N - D -	-	N - D -	-	N - D -	-	N - D -	-	N - D -	-
	Non-Curable	<5	N - D -	-	N - D -	-	N - D -	-	N - D -	-	N - D -	-
15. Colorectal Liver Metastases	Synchronous	95	N 2 D 2	100%	N 6 D 6	100%	N 12 D 13	92.3%	N 24 D 35	68.6%	N 44 D 56	78.6%
	Metachronous	95	N - D -	-	N 1 D 1	100%	N 4 D 4	100%	N 13 D 15	86.7%	N 18 D 20	90.0%
16. Assessment of Mismatch Repair (MMR)/Microsatellite (MSI) Status	Assessed	95	N 73 D 73	100%	N 68 D 107	63.6%	N 196 D 220	89.1%	N 458 D 468	97.9%	N 795 D 868	91.6%
	Referred to Genetics	90	N 1 D 1	100%	N - D -	-	N 4 D 4	100%	N 2 D 3	66.7%	N 7 D 8	87.5%

KEY	*Numerator (N)*	*% Performance*
	Denominator (D)	

GLOSSARY

Active treatment: Treatment which is intended to improve the cancer and/or alleviate symptoms, as opposed to supportive care.

Adenocarcinoma: A malignant growth of glandular tissue.

Adenoma: A benign (non malignant) tumour that develops from epithelial tissue.

Adjuvant therapy /treatment: Additional cancer treatment given after the primary treatment to lower the risk that the cancer will come back. Adjuvant therapy may include chemotherapy, radiation therapy, hormone therapy, targeted therapy, or biological therapy.

Anastomosis: An artificial connection, created by surgery, between two tubular organs or parts, especially between two parts of the intestine. For example, a junction created by a surgeon between two pieces of bowel which have been cut to remove the intervening section.

Anastomotic dehiscence/ leak: Bursting open or splitting of the surgical connection between two sections of intestine.

Anterior resection: The procedure to remove a diseased section of rectum, and rejoining of the healthy tissue at either end of the diseased area.

Anti-cancer therapy: Any treatment which is designed to kill cancer cells.

Asymptomatic: Having no symptoms. You are considered asymptomatic if you:

· Have recovered from an illness or condition and no longer have symptoms

· Have an illness or condition (such as early stage high blood pressure or glaucoma) but do not have symptoms

Audit: The measuring and evaluation of care against best practice with a view to improving current practice and care delivery.

Biopsy: Removal of a sample of tissue from the body to assist in diagnosis of a disease.

Bowel: The long, tube-shaped organ in the abdomen that completes the process of digestion. The bowel has two parts, the small bowel and the large bowel.

Cancer: The name given to a group of diseases that can occur in any organ of the body, and in blood, and which involve abnormal uncontrolled growth of cells.

Cancer Centre: Cancer services are based in cancer centres. Such centres provide the entire spectrum of cancer care - both on-site and to associated cancer units.

Cause-specific survival: A method of estimating net survival. Only deaths attributable to the cancer of diagnosis are counted as deaths, giving the probability of survival in the absence of other causes of death.

Chemoradiotherapy: Treatment that combines chemotherapy with radiotherapy.

Chemotherapy: The use of drugs that kill cancer cells, or prevent or slow their growth.

Circumferential margins (CRM): Margins of tissue surrounding a rectal cancer after it has been removed.

Clinical effectiveness: Measure of the extent to which a particular intervention works.

Clinical Governance: Ensures that patients receive the highest quality of care possible, putting each patient at the centre of his or her care. This is achieved by making certain that those providing services work in an environment that supports them and places the safety and quality of care at the top of the organisation's agenda.

Clinical Nurse Specialist (CNS): A nurse with specialist training in a particular type of cancer.

Clinical trials: A type of research study that tests how well new medical approaches or medicines work. These studies test new methods of screening, prevention, diagnosis, or treatment of a disease.

Colon: Part of the bowel. Also called the large intestine or large bowel. This structure has five major divisions: caecum, ascending colon, transverse colon, descending colon and sigmoid colon. The colon is responsible for forming, storing and expelling waste matter into the rectum.

Colonoscopy: Examination of the interior of the large bowel using a long, flexible, instrument (a colonoscope) inserted through the anus. A colonoscope is capable of reaching to the upper end of the large bowel (colon) and can be used to diagnose diseases of the large bowel.

Colorectal Cancer: Cancer that develops in the colon (the longest part of the large intestine) and/or the rectum (the last several centimetres of the large intestine before the anus).

Co-morbidity: The condition of having two or more diseases at the same time.

Computed Tomography (CT): An X-ray imaging technique used in diagnosis that can reveal many soft tissue structures not shown by conventional radiography. A computer is used to assimilate multiple X-ray images into a two-dimensional and/or three-dimensional cross-sectional image.

CT Colonography: Computed tomography of the abdomen and pelvis that focuses on the colon. Computed tomography is an x-ray

Contraindicated: A symptom or medical condition that makes a particular treatment or procedure inadvisable because a person is likely to have a bad reaction.

Curative: Having properties which cure. Something which overcomes disease and promotes recovery.

Dataset: A list of required and specific information relating to a single disease.

Elective: Subject to the choice or decision of the patient or physician, applied to procedures that are advantageous to the patient, but not urgent.

Emergency Surgery: Unscheduled surgery performed promptly and often for lifesaving purposes.

Extramural vascular invasion: The direct invasion of a blood vessel (usually a vein) by tumour. In rectal cancer, this can occur on a macroscopic level and be detected on staging MRI. It is a significant prognostic factor, being a predictor of haematogenous spread.

Fatal: Results in death.

HIS Healthcare Improvement Scotland: Healthcare Improvement Scotland (HIS) brings together the roles of the former Clinical Standards Board of Scotland (CSBS) and NHS Quality Improvement Scotland (NHS QIS). This is a statutory body whose purpose is to support healthcare providers in Scotland to deliver high quality, evidence-based, safe, effective and person-centred care; and to scrutinise those services to provide public assurance about the quality and safety of that care. www.healthcareimprovementscotland.org

High risk: High risk colorectal cancer is defined as patients with pT4 (see TNM) disease and extramural vascular invasion.

Independent risk factor: A substance or condition that increases an individual's chances of getting a particular type of cancer.

Index procedure: Initial or first surgical procedure performed.

Interventional radiology: Refers to a range of techniques which rely on the use of radiological image guidance (X-ray fluoroscopy, ultrasound, computed tomography (CT) or magnetic resonance imaging (MRI) to precisely target therapy.

Intravenous iodinated contrast: A substance administered intravenously (directly into bloodstream) to enhance the visibility of structures on imaging.

KRAS: A gene which is found in the human body. If this gene mutates cancer can form.

KRAS testing: A test to establish the type of KRAS gene mutation present in a colorectal cancer.

Large bowel: Another name for the large intestine.

Long course radiotherapy: A course of radiotherapy lasting up to 6 weeks.

Lymph nodes: Small bean shaped structures located along the lymphatic system. Nodes filter bacteria or cancer cells that might travel through the lymphatic system.

Metastatic disease: Spread of cancer away from the primary site to somewhere else via the bloodstream or the lymphatic system. Metastatic disease can be local (close to the area where the cancer is) or distant (in another area of the body).

Morbidity: How much ill health a particular condition causes.

Mortality: Either (1) the condition of being subject to death; or (2) the death rate, which reflects the number of deaths per unit of population in any specific region, age group, disease or other classification, usually expressed as deaths per 1000, 10,000 or 100,000.

Magnetic Resonance Imaging (MRI): A procedure in which radio waves and a powerful magnet linked to a computer are used to create detailed pictures of areas inside the body. These pictures can show the difference between normal and diseased tissue.

Multi Disciplinary Team: The collective name for a group of clinicians from various medical and non-medical disciplines appropriate to the disease area.

Multi Disciplinary Meeting (MDM): A regular meeting where participants from various clinical disciplines appropriate to the disease meet to discuss and agree diagnosis and subsequent clinical management of patients.

Neo-adjuvant Therapy: The use of chemotherapy and/or radiotherapy prior to surgery. The aim of neo-adjuvant therapy is to reduce the size of any cancerous tumour.

NCA: North Cancer Alliance.

Oncologist: A doctor who specialises in the treatment of cancer patients. A clinical oncologist, or radiotherapist, specialises in treating cancer with radiation or drugs, and a medical oncologist specialises in treating cancer with drugs.

Outcome: A measure of effects, beneficial or adverse, which a person experiences as a result of the care, treatments or services they have received.

Palliative: Treatment which serves to alleviate symptoms due to the underlying cancer but is not expected to cure it.

Pathological: The study of disease processes with the aim of understanding their nature and causes. This is achieved by observing samples of fluid and tissues obtained from the living patient by various methods, or at post mortem.

Performance status: A measure of how well a patient is able to perform ordinary tasks and carry out daily activities. (PS WHO score of 0=asymptomatic, 4=bedridden).

PHS: Public Health Scotland is Scotland's lead national agency for improving and protecting the health and wellbeing of all Scotland's people. www.publichealthscotland.scot

Polyp: A small finger-like growth arising from the skin or a mucus surface, usually attached by a stem.

Post operative complication: A complication or problem experienced following a surgical procedure.

Prognosis: An assessment of the expected future course and outcome of a person's disease.

Quality assurance (QA): When a sample of data is compared with the data definitions.

Radical treatment: Treatment that aims to get to completely get rid of a cancer.

Radiotherapy: The use of radiation, usually X-rays or gamma rays, to kill tumour cells.

RAPIDO protocol: Total neoadjuvant treatment in locally advanced rectal cancer.

Rectal anastomosis: A surgical procedure where part of the colon or ano-rectum is removed and the remaining ends joined together.

Rectal Cancer: Cancer that forms in the tissues of the rectum (the last several centimetres of the large intestine closest to the anus).

Rectum: The distal or lowest portion of the large intestine.

Recurrence: When new cancer cells are detected, at the site of original tumour or elsewhere in the body, following treatment.

SACT: All anti-cancer drug treatments such as chemotherapy and immunotherapy.
SCAN: South East Scotland Cancer Network.
Short course radiotherapy: 5 treatments of radiotherapy given (as a course of therapy) over 1 week prior to surgery being performed.
Staging: Process of describing to what degree cancer has spread from its original site to another part of the body. Staging involves clinical, radiological, surgical and pathological assessments.
Stoma: An artificial opening of the bowel that has been brought to the abdominal surface.
Surgery/Surgical Resection: Surgical removal of the tumour/lesion.
Synchronous tumours: Two or more colorectal tumours presenting at the same time in the colon or rectum.
Total mesorectal excision (TME): A procedure in which any tissue surrounding the rectum which may contain tumour cells is removed at the same time as the rectum.
Transanal endoscopic microsurgery (TEM): An alternative to open or laparoscopic excision whereby small rectal lesions are surgically excised using a minimally invasive approach.
Transanal resection of tumour (TART): Surgical procedure performed to remove a tumour in the rectum through the anus.
WoSCAN: West of Scotland Cancer Network.