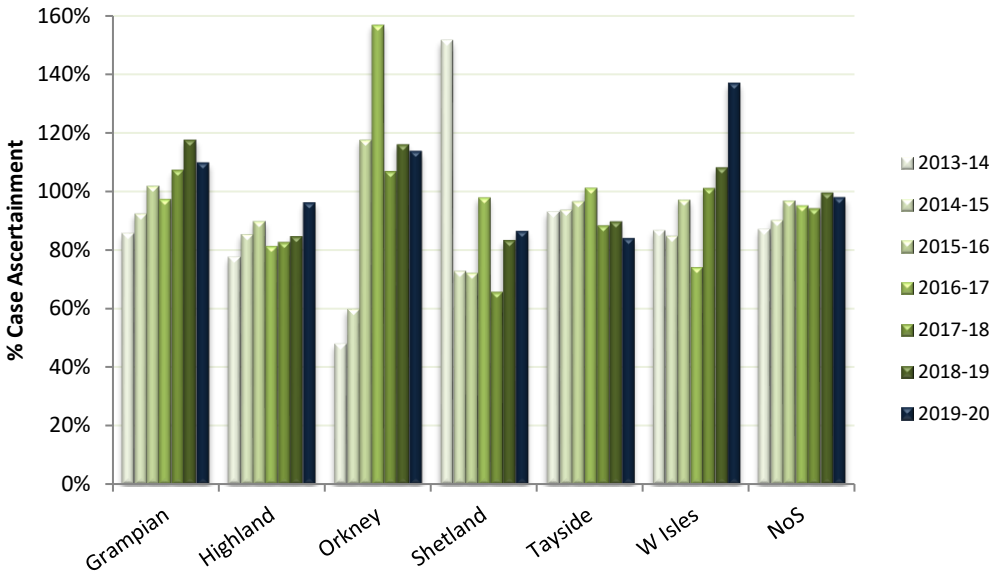
Quality Performance Indicators Audit Report

Tumour Area:	Colorectal Cancer
Patients Diagnosed:	1st April 2019 – 31st March 2020
Published Date:	30/06/2021

1. Patient Numbers and Case Ascertainment in the North of Scotland

Between 1st April 2019 and 31st March 2020, a total of 952 cases of colorectal cancer were diagnosed in the North of Scotland and recorded through audit. Overall case ascertainment was high at 97.9% which indicates excellent data capture through audit. Audit data were considered to be sufficiently complete to allow QPI calculations: the number of instances of data not being recorded was generally very low, however there were a few notable gaps across the region, which will affect the accuracy of QPI results.

The most considerable gap was the absence of data on 'Intent of Surgery' for 95 patients across the North of Scotland, most notably in NHS Grampian. This omission will have affected the results of QPI 5 considerably as well as QPIs 1 and 2.

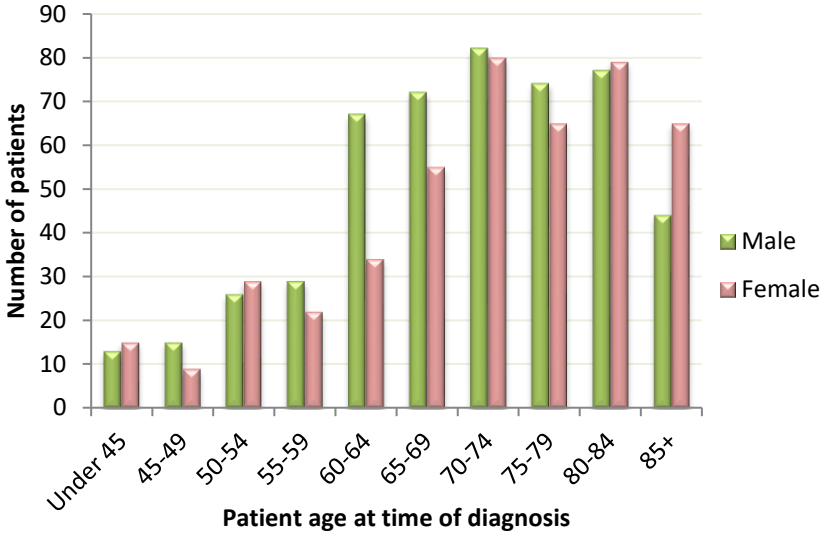


Case ascertainment by NHS Board for patients diagnosed with colorectal cancer in 2013/14 – 2019/20.

	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NoS
No. of Patients 2019-20	411	196	15	14	290	26	**952**
% of NoS total	43.2%	20.6%	1.6%	1.5%	30.5%	2.7%	**100%**
Mean ISD Cases 2014-18	375	204	13	16	345	19	**972**
% Case ascertainment 2019-20	109.7%	96.2%	113.6%	86.4%	84.0%	136.8%	**97.9%**

2. Age Distribution

The following figure shows the age distribution of patients diagnosed with colorectal cancer in the North of Scotland in 2019-20, with numbers highest in the 70-74 year age bracket for both males and females.



Age distribution of patients diagnosed with colorectal cancer in the NoS in 2019-2020.

3. Performance against Quality Performance Indicators (QPIs)

Definitions for the QPIs reported in this section are published by Health Improvement Scotland[1], while further information on datasets and measurability used are available from Information Services Division[2]. Data for QPIs are presented by NHS Board of diagnosis with the exception of surgical QPIs (QPIs 4, 5, 7, 8, 9 and 10), which are reported by NHS Board of surgery, and QPI 13 which is reported by health board of residence. Please not that where QPI definitions have been amended, results are not compared with those from previous years.

Where the number of cases per Board is between one and four, results have been excluded from charts and tables to minimise the risk of disclosure. However, all board results are included within the total for the North of Scotland.

In regards to mortality following SACT, a decision has been taken nationally to move to a new generic QPI (30-day mortality for SACT) applicable across all tumour types. This new QPI will use CEPAS (Chemotherapy ePrescribing and Administration System) data to measure SACT mortality to ensure that the QPI focuses on the prevalent population rather than the incident population. The measurability for this QPI is still under development to ensure consistency across the country and it is anticipated that performance against this measure will be reported in the next audit cycle (the target will be revised from <5% to <10% when it is reported using CEPAS due to the increased clinical cohort who will be receiving appropriate palliative chemotherapy). In the meantime all deaths within 30 days of SACT will continue to be reviewed at NHS Board level.

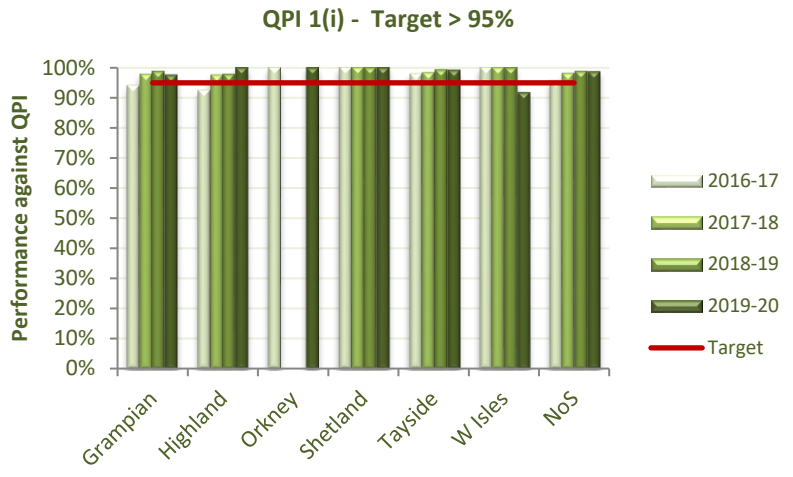
4. Governance and Risk

QPI performance is overseen by the North Cancer Alliance and its constituent groups, with an assessment of clinical risk and action planning undertaken collaboratively and reporting at board and regional level. Actions will be overseen by the Pathway Boards and reported concurrently into the NCA governance groups and cancer strategy committees at each North of Scotland health board.

Further information is available here.

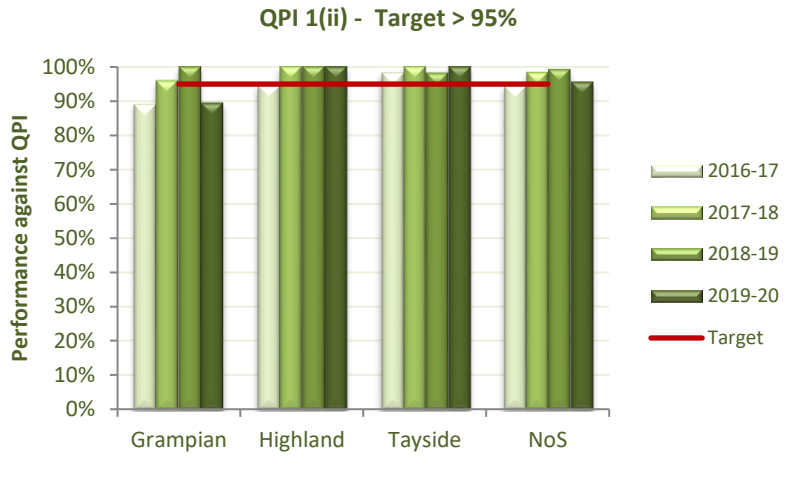
QPI 1	Radiological Diagnosis and Staging
Proportion of patients with colorectal cancer who undergo CT chest, abdomen and pelvis (colorectal cancer) plus MRI pelvis (rectal cancer only) before definitive treatment.	

Specification (i) Patients with colon cancer who undergo CT chest, abdomen and pelvis



	Performance (%)	Numerator	Denominator
Grampian	**97.6%**	162	166
Highland	**100%**	96	96
Orkney	**100%**	5	5
Shetland	**100%**	7	7
Tayside	**99.2%**	129	130
W Isles	**91.7%**	11	12
NoS	**98.6%**	**410**	**416**

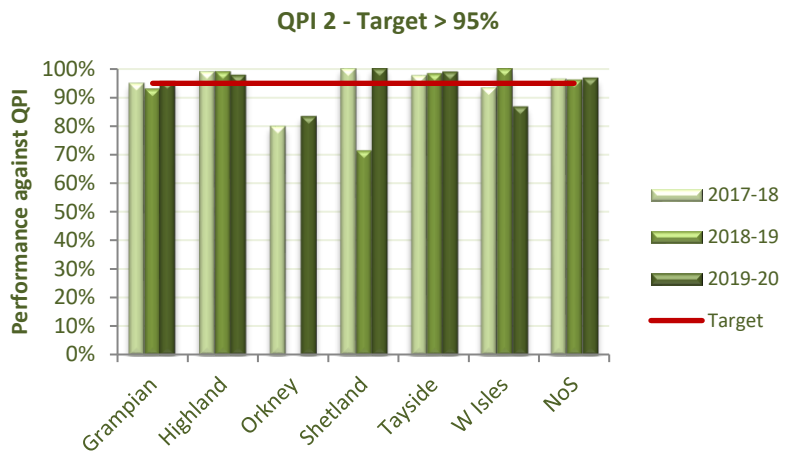
Specification (ii) Patients with rectal cancer who undergo CT chest, abdomen and pelvis and MRI (pelvis).



	Performance (%)	Numerator	Denominator
Grampian	**89.4%**	42	47
Highland	**100%**	17	17
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**100%**	39	39
W Isles*	-	-	-
NoS	**95.5%**	**106**	**111**

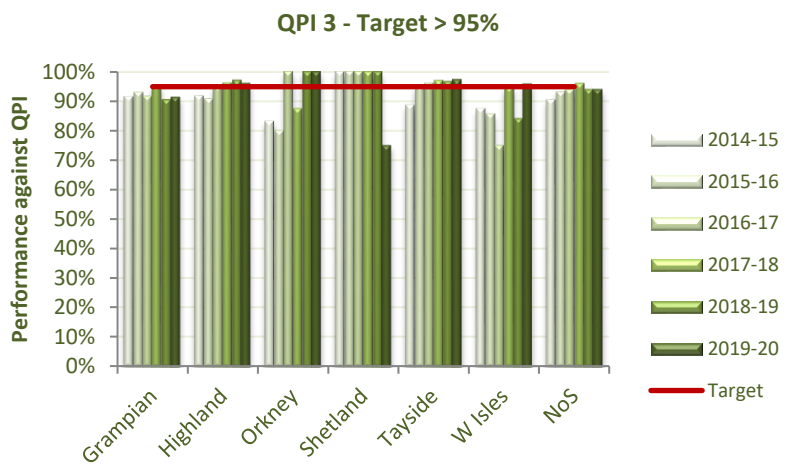
All patients who did not undergo a CT chest, abdomen and pelvis and MRI have been reviewed by local teams and clinical reasons provided. All patients had polyps / not proven to be cancer pre-operatively, but had clear margins following surgery and malignancy confirmed.

QPI 2	Pre-Operative Imaging of the Colon
Proportion of patients with colorectal cancer who undergo elective surgical resection who have the whole colon visualised by colonoscopy or CT colonography pre-operatively, unless the non-visualised segment of colon is to be removed.	



	Performance (%)	Numerator	Denominator
Grampian	**95.4%**	186	195
Highland	**97.7%**	85	87
Orkney	**83.3%**	5	6
Shetland	**100%**	5	5
Tayside	**98.8%**	168	170
W Isles	**86.7%**	13	15
NoS	**96.7%**	**462**	**478**

QPI 3	Multi-Disciplinary Team (MDT) Meeting
Proportion of patients with colorectal cancer who are discussed at MDT meeting before definitive treatment.	



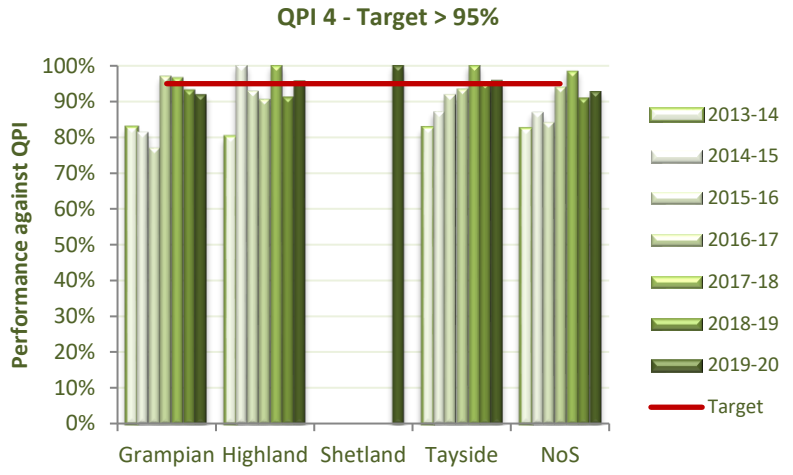
	Performance (%)	Numerator	Denominator
Grampian	**91.3%**	306	335
Highland	**96.0%**	144	150
Orkney	**100%**	12	12
Shetland	**75.0%**	9	12
Tayside	**97.3%**	214	220
W Isles	**95.8%**	23	24
NoS	**94.0%**	**708**	**753**

Patients who were not discussed at Colorectal MDT have been assessed and reasons documented. Eleven of the 27 patients at NHS Grampian were discussed at the complex polyp MDT and decisions made for surgery, however fail this QPI as it was not the Colorectal Cancer MDT. A few patients were discussed at HPB and Lung MDTs and decisions made for supportive care only due to stage of disease; further discussion at Colorectal MDT was not deemed to be appropriate for these patients.

There is also the interface with peripheral units and ensuring patients with confirmed cancer are referred for Colorectal MDT discussion prior to definitive treatment. There were 9 patients who had surgery at Dr Gray's Hospital, discussed locally as suspected polyps, and not referred to the Colorectal Cancer MDT. These patients were subsequently diagnosed with T1 cancers post-surgery. Colleagues are to be reminded where cancer is confirmed pre-operatively, these patients should be discussed at the Colorectal Cancer MDT prior to definitive treatment.

Other reasons patients were not discussed included emergency treatment or patients died before discussion; these patients are accounted for in the 5% tolerance of the QPI.

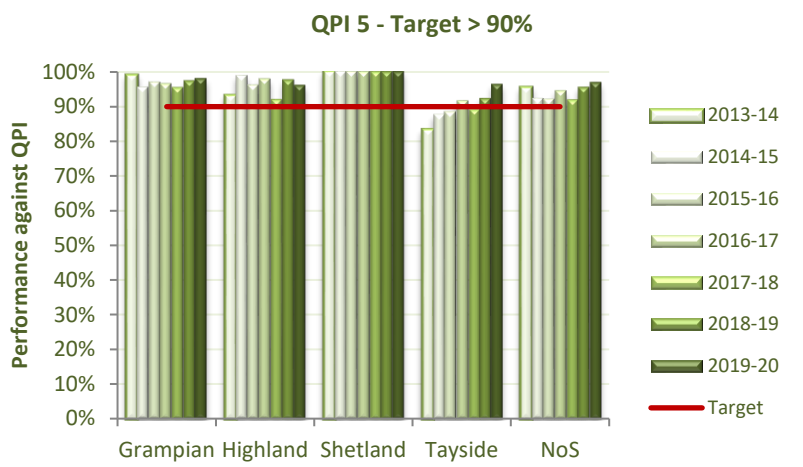
QPI 4	Stoma Care
Proportion of patients with colorectal cancer who undergo elective surgical resection which involves stoma creation who are seen and have their stoma site marked pre-operatively by a nurse with expertise in stoma care.	



	Performance (%)	Numerator	Denominator
Grampian	**91.9%**	68	74
Highland	**95.7%**	22	23
Orkney*	-	-	-
Shetland	**100%**	5	5
Tayside	**95.8%**	46	48
W Isles*	-	-	-
NoS	**92.8%**	**142**	**153**

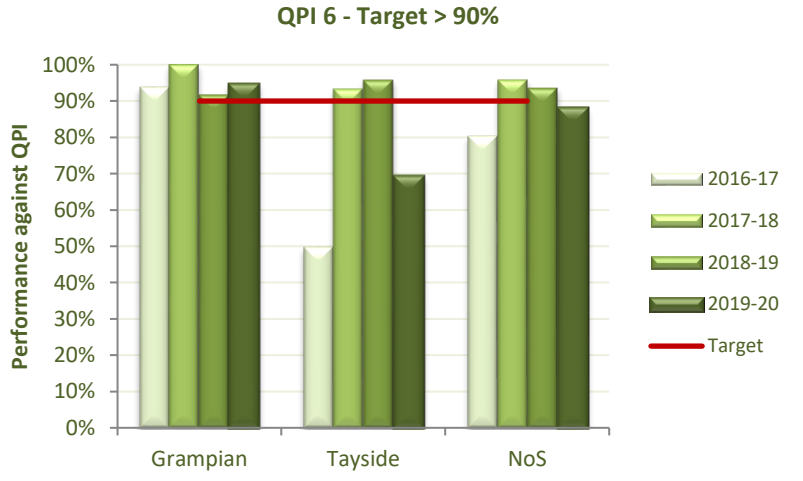
All patients have been reviewed by boards and all who attended for elective surgery where a stoma was likely required, were appropriately sited by a nurse with expertise in stoma care. Of the patients that did not meet this target, patients had unplanned stomas as part of emergency surgery.

QPI 5	Lymph Node Yield
Proportion of patients with colorectal cancer who undergo surgical resection where ≥12 lymph nodes are pathologically examined.	



	Performance (%)	Numerator	Denominator
Grampian	**98.0%**	144	147
Highland	**96.1%**	123	128
Orkney*	-	-	-
Shetland	**100%**	8	8
Tayside	**96.3%**	157	163
W Isles	-	0	0
NoS	**96.9%**	**436**	**450**

QPI 6	Neoadjuvant Therapy
Proportion of patients with locally advanced rectal cancer with threatened or involved circumferential resection margin (CRM) on preoperative MRI who receive neo-adjuvant therapy, designed to facilitate a margin-negative resection, defined as: (i) Long course chemoradiotherapy; (ii) Long course radiotherapy; (iii) Short course radiotherapy with long course intent (delay to surgery); or (iv) Neo-adjuvant chemotherapy	

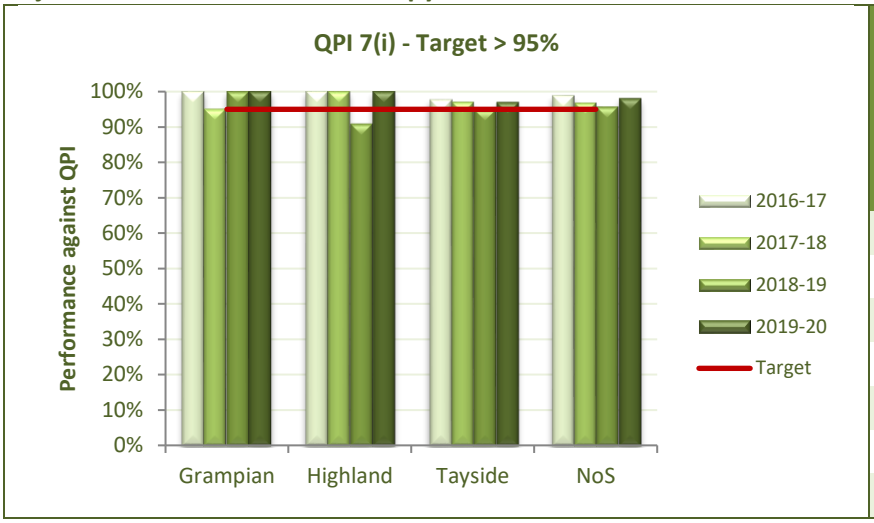


	Performance (%)	Numerator	Denominator
Grampian	**94.4%**	34	36
Highland*	-	-	-
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**69.2%**	9	13
W Isles*	-	-	-
NoS	**87.9%**	**51**	**58**

All patients have been reviewed and individual reasons for failing to meet this QPI have been received.

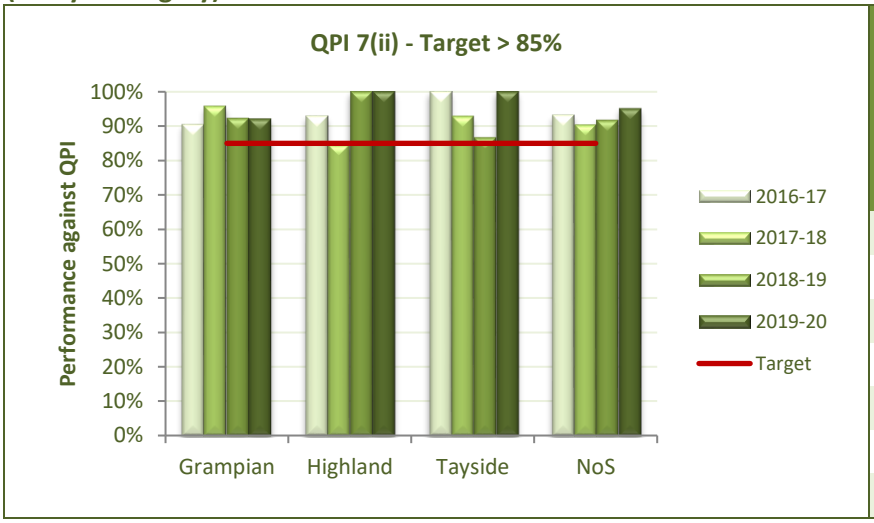
QPI 7	Surgical Margins
Proportion of patients with rectal cancer who undergo surgical resection in which the circumferential margin is clear of tumour.	

Specification (i) Patients undergoing primary surgery, or immediate / early surgery following neo-adjuvant short course radiotherapy



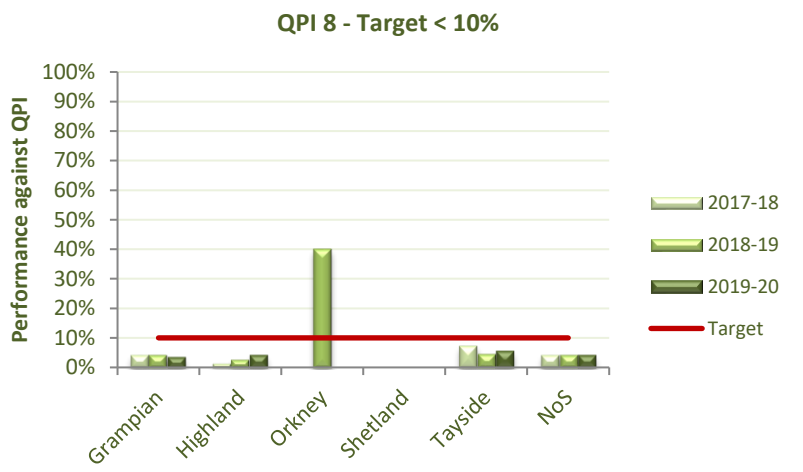
	Performance (%)	Numerator	Denominator
Grampian	**100%**	10	10
Highland	**100%**	8	8
Orkney	-	0	0
Shetland	-	0	0
Tayside	**96.9%**	31	32
W Isles	-	0	0
NoS	**98.0%**	**49**	**50**

Specification (ii) Patients undergoing surgery following neo-adjuvant chemotherapy, long course chemoradiotherapy, long course radiotherapy or short course radiotherapy with long course intent (delay to surgery).



	Performance (%)	Numerator	Denominator
Grampian	**92.1%**	35	38
Highland	**100%**	7	7
Orkney*	-	-	-
Shetland	-	0	0
Tayside	**100%**	15	15
W Isles	-	0	0
NoS	**95.1%**	**58**	**61**

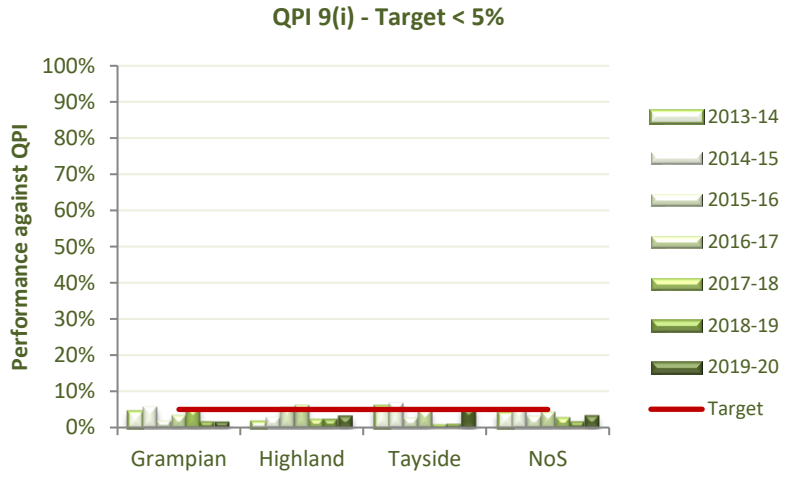
QPI 8	Re-operation Rates
Proportion of patients who undergo surgical resection for colorectal cancer who return to theatre to deal with complications related to the index procedure (within 30 days of surgery).	



	Performance (%)	Numerator	Denominator
Grampian	**3.5%**	9	255
Highland	**4.2%**	6	143
Orkney	**0%**	0	6
Shetland	**0%**	0	9
Tayside	**5.5%**	11	201
W Isles	-	0	0
NoS	**4.2%**	**26**	**614**

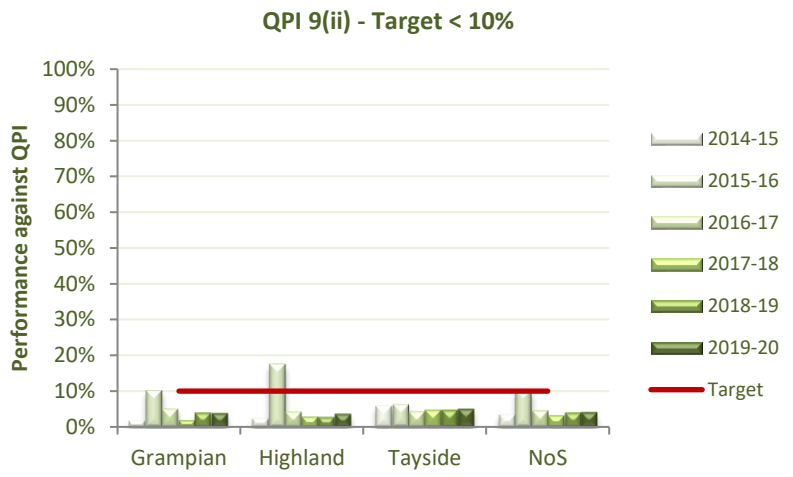
QPI 9	Anastomotic Dehiscence
Proportion of patients who undergo surgical resection for colorectal cancer with anastomotic leak as a post-operative complication.	

Specification (i) Patients undergoing colonic anastomosis



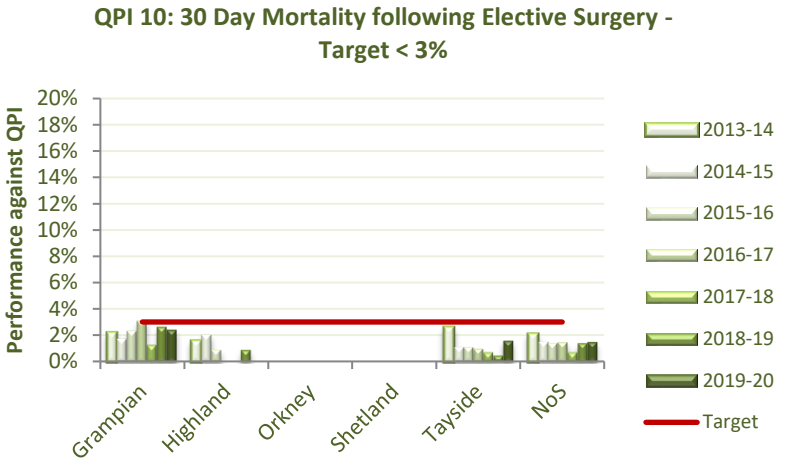
	Performance (%)	Numerator	Denominator
Grampian	**1.8%**	2	114
Highland	**3.4%**	3	88
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**5.4%**	4	74
W Isles	-	0	0
NoS	**3.5%**	**10**	**282**

Specification (ii) Patients undergoing rectal anastomosis (including: anterior resection with total mesorectal excision (TME)).

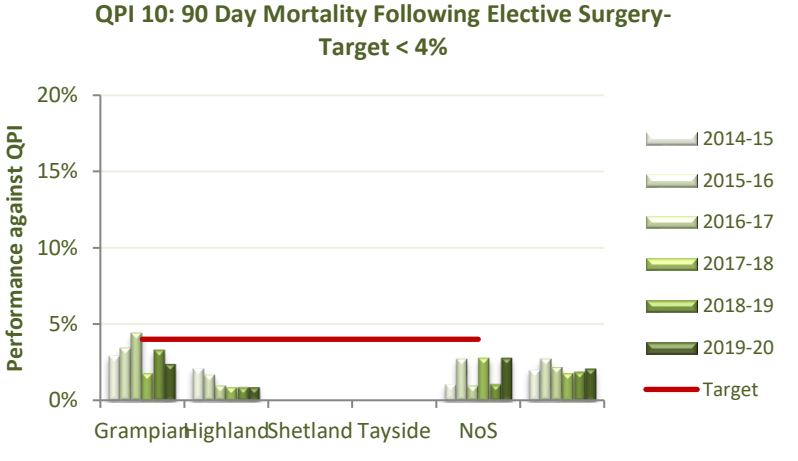


	Performance (%)	Numerator	Denominator
Grampian	**3.8%**	2	53
Highland	**3.6%**	1	28
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**5.0%**	3	60
W Isles	-	0	0
NoS	**4.1%**	**6**	**145**

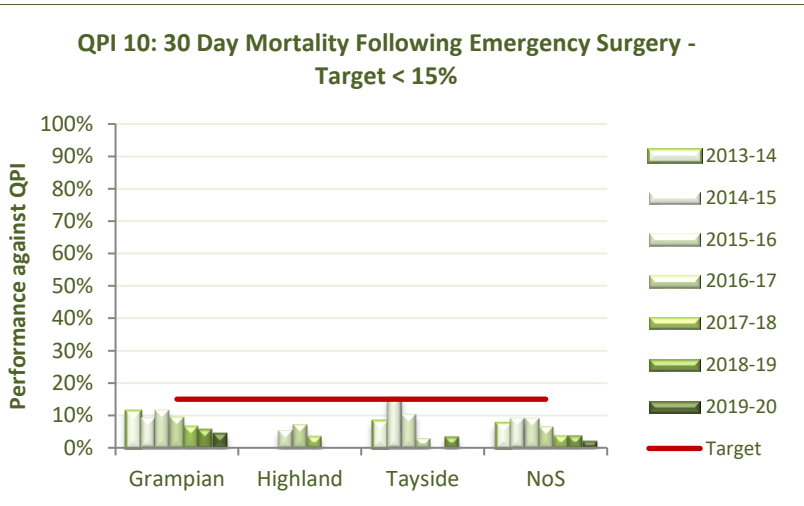
QPI 10	30 and 90 Day Mortality following Surgical Resection
Proportion of patients with colorectal cancer who die within 30 or 90 days of emergency or elective surgical resection.	



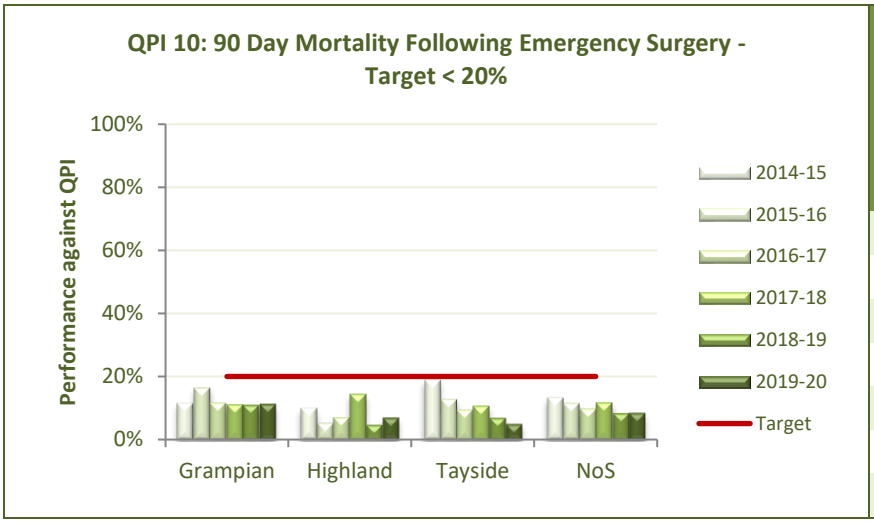
	Performance (%)	Numerator	Denominator
Grampian	**2.4%**	5	210
Highland	**0%**	0	114
Orkney	**0%**	0	6
Shetland	**0%**	0	7
Tayside	**1.6%**	3	183
W Isles	-	0	0
NoS	**1.5%**	**8**	**520**



	Performance (%)	Numerator	Denominator
Grampian	**3.3%**	6	180
Highland	**0.9%**	1	115
Orkney*	-	-	-
Shetland	**0%**	0	5
Tayside	**1.1%**	2	181
W Isles*	-	-	-
NoS	**1.9%**	**9**	**484**



	Performance (%)	Numerator	Denominator
Grampian	**4.4%**	2	45
Highland	**0%**	0	29
Orkney	-	0	0
Shetland*	-	-	-
Tayside	**0%**	0	20
W Isles	-	0	0
NoS	**2.1%**	**2**	**96**



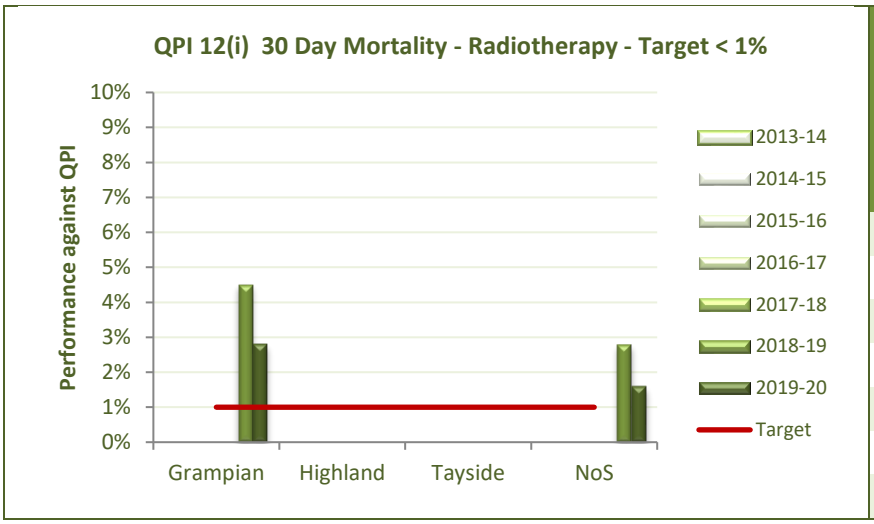
	Performance (%)	Numerator	Denominator
Grampian	**11.1%**	5	45
Highland	**6.9%**	2	29
Orkney	**-**	0	0
Shetland*	**-**	-	-
Tayside	**5.0%**	1	20
W Isles	**-**	0	0
NoS	**8.3%**	**8**	**96**

QPI 11	Adjuvant Chemotherapy
Proportion of patients between 50 and 74 years of age at diagnosis with Dukes' C, or high risk Dukes' B, colorectal cancer who receive adjuvant chemotherapy.	

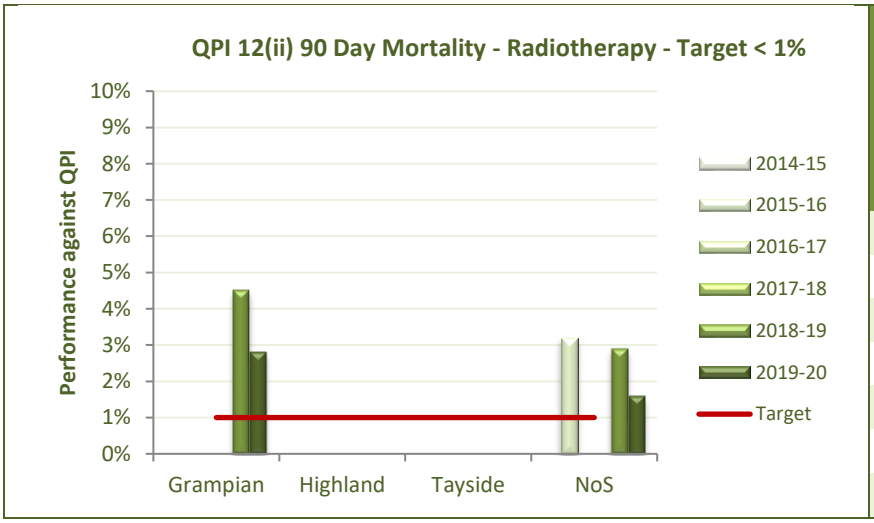
Results are not available for 2019-2020 data due to proposed changes as part of the formal review process.

QPI 12	30 and 90 Day Mortality Following Chemotherapy or Radiotherapy
Proportion of patients with colorectal cancer who die within 30 or 90 days of chemotherapy or radiotherapy treatment.	

SACT mortality results are not available for the current reporting year using CEPAS data, it is expected that these will be reported as part of the 2020/21 patients report.

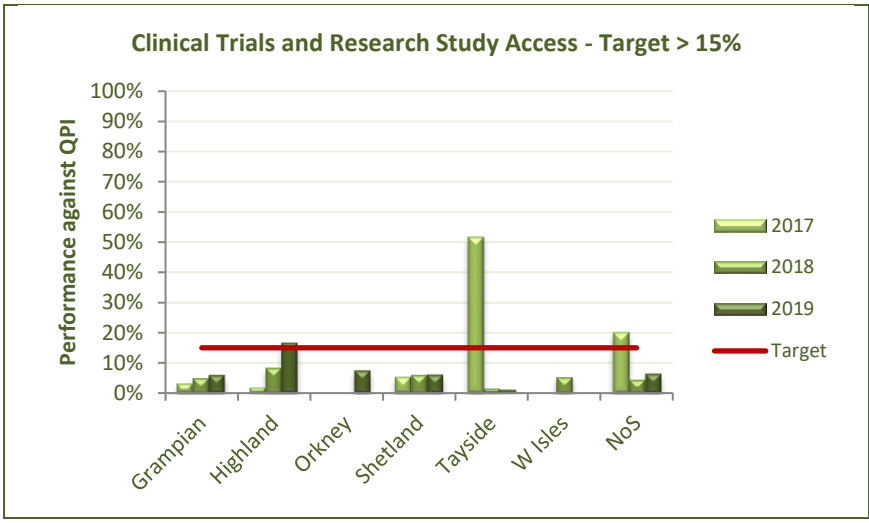


	Performance (%)	Numerator	Denominator
Grampian	**2.8%**	1	36
Highland	**0%**	0	11
Orkney*	-	-	-
Shetland	-	0	0
Tayside	**0%**	0	10
W Isles*	-	-	-
NoS	**1.6%**	**1**	**63**



	Performance (%)	Numerator	Denominator
Grampian	**2.8%**	1	36
Highland	**0%**	0	11
Orkney*	-	-	-
Shetland	-	0	0
Tayside	**0%**	0	10
W Isles*	-	-	-
NoS	**1.6%**	**1**	**63**

QPI 13	Clinical Trial Access
Proportion of patients with colorectal cancer who are consented for a clinical trial / translational research. Data reported for patients consented in 2019.	



	Performance (%)	Numerator	Denominator
Grampian	**6.1%**	23	375
Highland	**16.7%**	34	204
Orkney	**7.6%**	1	13
Shetland	**6.2%**	1	16
Tayside	**1.2%**	4	345
W Isles	**0%**	0	19
NoS	**6.5%**	**63**	**972**

As well as having trials available to patients with a confirmed cancer diagnosis, trials are available to patients pre-diagnosis. In 2019 the COGS2 genetic susceptibility study was available to patients in Grampian and Tayside but unfortunately did not consent any patients.

References

1. Scottish Cancer Taskforce, 2017. Colorectal Cancer Clinical Performance Indicators, Version 3.0. Health Improvement Scotland.

   http://www.healthcareimprovementscotland.org/his/idoc.ashx?docid=f399d719-8597-48f6-999a-1e248d5ab6aa&version=-1

2. http://www.isdscotland.org/Health-Topics/Cancer/Cancer-Audit/

Appendix 1: Clinical Trials and Research studies for colorectal cancer open to recruitment in the North of Scotland in 2019

Trial	Principle Investigator	Patients consented (Y/N)
ADD ASPIRIN	Trevor McGoldrick (Grampian) Douglas Adamson (Tayside) Russell Mullen (Highland)	Y
BEACON CRC Study	Leslie Samuel (Grampian)	N
FOCUS 4	Leslie Samuel (Grampian & Highland) Sharon Armstrong (Tayside)	Y
GARNET	Leslie Samuel (Grampian)	Y
Management of Metastatic Colorectal Cancer	Sharon Armstrong (Tayside)	N
PLATO - PersonaLising Anal cancer radiotherapy dOse	Leslie Samuel (Grampian)	Y
POLEM	Leslie Samuel (Grampian)	Y
PREPARE ABC	Angus Watson (Highland)	Y
Scottish Colorectal Cancer Genetic Susceptibility study 3 (SOCCS3)	Angus Watson (Highland) Sharon Armstrong (Tayside)	N
SOLSTICE	Leslie Samuel (Grampian)	Y
TRIGGER	Leslie Samuel (Grampian)	N