Quality Performance Indicators Audit Report

Tumour Area:	Colorectal Cancer
Patients Diagnosed:	1st April 2020 – 31st March 2021
Published Date:	2nd September 2022

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

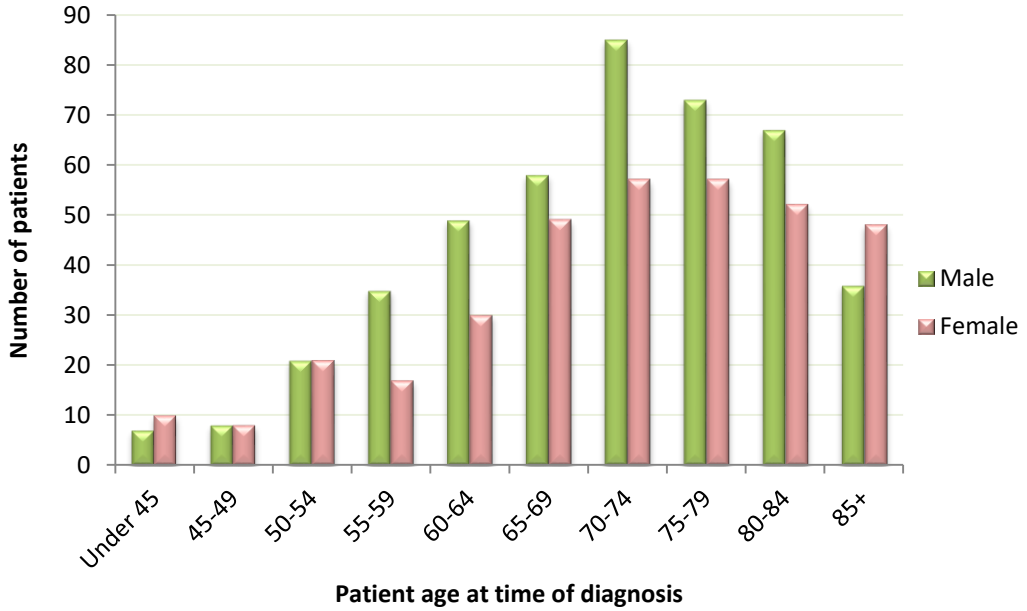
Between 1st April 2020 and 31st March 2021, a total of 788 cases of colorectal cancer were diagnosed in the North of Scotland and recorded through audit. Overall case ascertainment was at 77.3%. QPIs based on cancer audit data are considered to be representative of all patients diagnosed with colorectal cancer during the audit period.

Case ascertainment and proportion of NoS total for patients diagnosed with Colorectal Cancer in 2020-21

	Grampian	Highland	Orkney	Shetland	Tayside	W Isles	NoS
No. of Patients 2020-21	308	177	14	9	263	17	**788**
% of NoS total	39.1%	22.5%	1.8%	1.1%	33.4%	2.2%	**100%**
Cancer Registration Cases 2015-19	398.6	221.2	14.8	15.2	347.6	22.0	**1019.4**
% Case ascertainment 2020-21	77.3%	80.0%	94.6%	59.2%	75.7%	77.3%	**77.3%**

2. Age Distribution

The following figure shows the age distribution of patients diagnosed with colorectal cancer in the North of Scotland in 2020-21, 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 2020-2021

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 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 note 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.

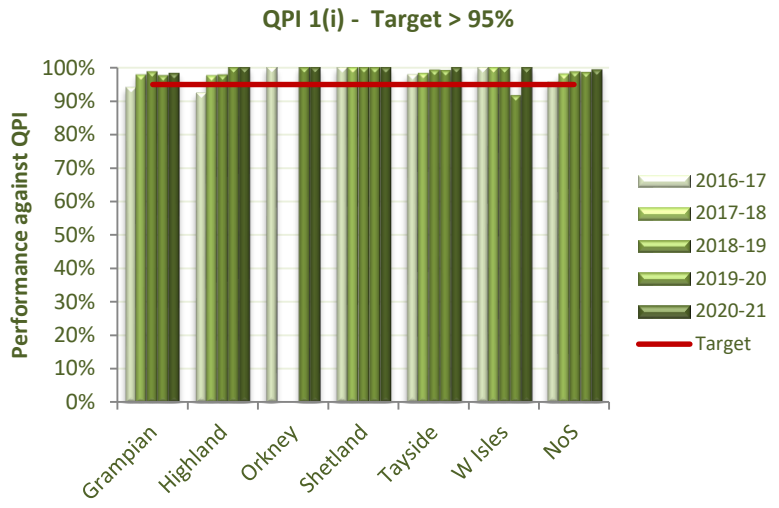
4. Governance and Risk

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 the Clinical Governance committees at each NCA 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

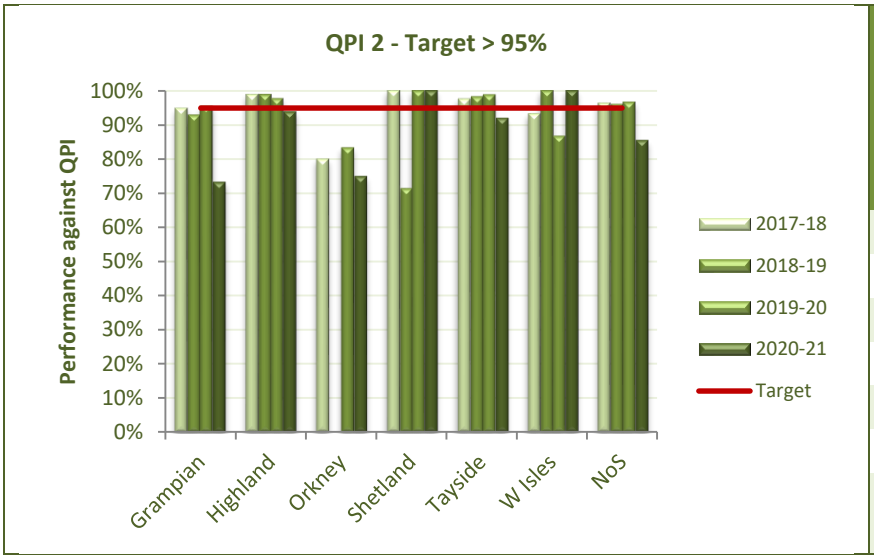


	Performance (%)	Numerator	Denominator
Grampian	**98.3%**	117	119
Highland	**100%**	75	75
Orkney	**100%**	6	6
Shetland*	-	-	-
Tayside	**100%**	122	122
W Isles	**100%**	9	9
NoS	**99.4%**	**332**	**334**

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

	Performance (%)	Numerator	Denominator
Grampian	**97.3%**	36	37
Highland	**100%**	25	25
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**100%**	39	39
W Isles*	-	-	-
NoS	**99.0%**	**104**	**105**

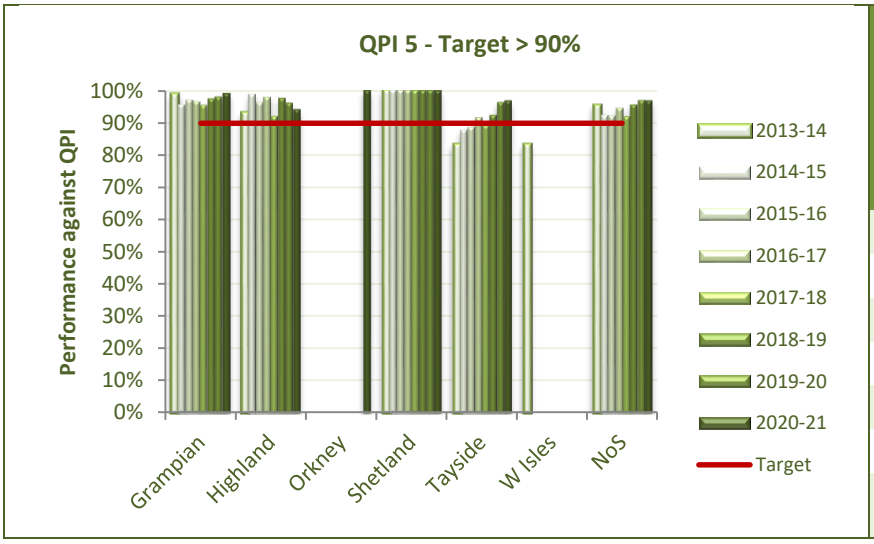
QPI 2	Pre-Operative Imaging of the Colon
Proportion of patients with colorectal cancer who undergo elective surgical resection who have the whole colon visualised by colonoscopy or CT Colonography pre-operatively, unless the non-visualised segment of colon is to be removed.	



	Performance (%)	Numerator	Denominator
Grampian	**73.3%**	99	135
Highland	**93.8%**	75	80
Orkney	**75.0%**	6	8
Shetland*	-	-	-
Tayside	**92.0%**	127	138
W Isles	**100%**	9	9
NoS	**85.5%**	**318**	**372**

Some patients received extended neo-adjuvant treatment and did not receive surgery within the 6 month time period stated within the QPI definition, however the majority of patients did receive surgery within 9 months of full colonoscopy. This has been discussed by regional clinical leads and is deemed to be clinically acceptable and patients would not be subjected to additional scope after neo-adjuvant treatment and before resection in this timescale.

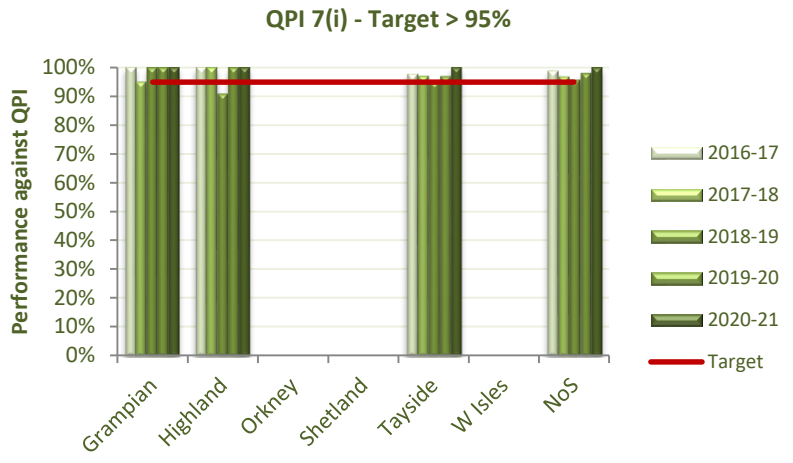
QPI 5	Lymph Node Yield
Proportion of patients with colorectal cancer who undergo surgical resection where ≥12 lymph nodes are pathologically examined.	



	Performance (%)	Numerator	Denominator
Grampian	**99.1%**	111	112
Highland	**94.1%**	95	101
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**96.8%**	149	154
W Isles	-	0	0
NoS	**96.8%**	**359**	**371**

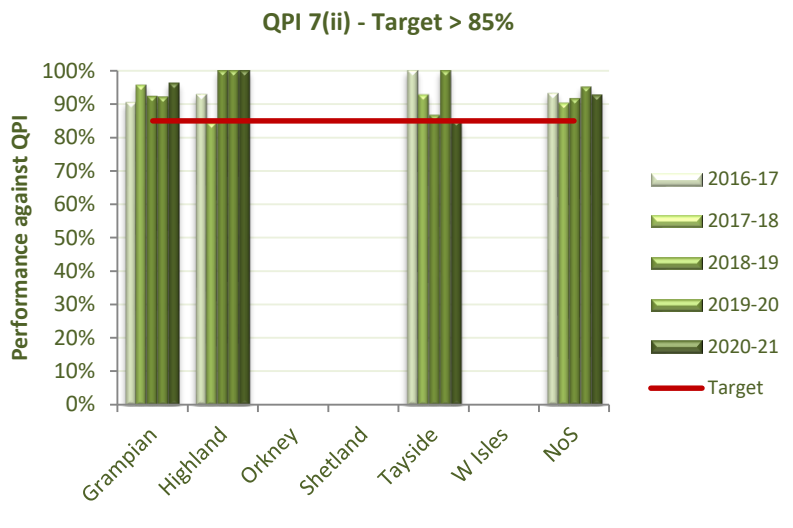
QPI 7	Surgical Margins
Proportion of patients with rectal cancer who undergo surgical resection in which the circumferential margin is clear of tumour.	

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



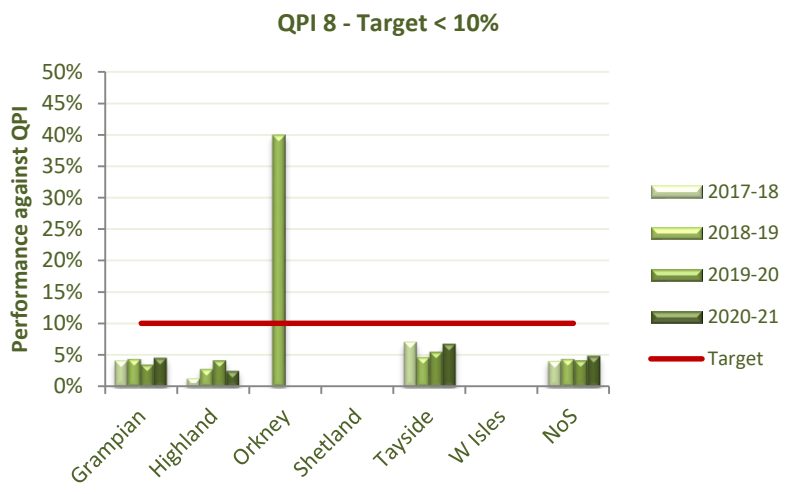
	Performance (%)	Numerator	Denominator
Grampian	**100%**	12	12
Highland	**100%**	9	9
Orkney	-	0	0
Shetland	-	0	0
Tayside	**100%**	20	20
W Isles	-	0	0
NoS	**100%**	**41**	**41**

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	**96.3%**	26	27
Highland	**100%**	8	8
Orkney	-	0	0
Shetland	-	0	0
Tayside	**85.0%**	17	20
W Isles	-	0	0
NoS	**92.7%**	**51**	**55**

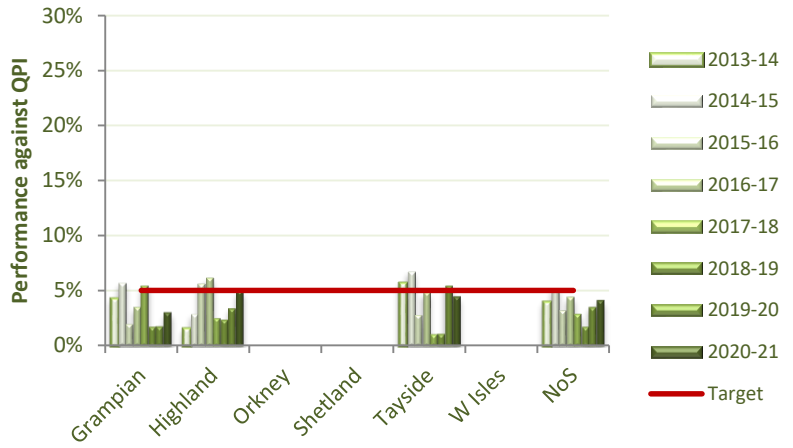
QPI 8	Re-operation Rates
Proportion of patients who undergo surgical resection for colorectal cancer who return to theatre to deal with complications related to the index procedure (within 30 days of surgery).	



	Performance (%)	Numerator	Denominator
Grampian	**4.5%**	8	178
Highland	**2.5%**	3	119
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**6.6%**	12	182
W Isles	-	0	0
NoS	**4.8%**	**23**	**484**

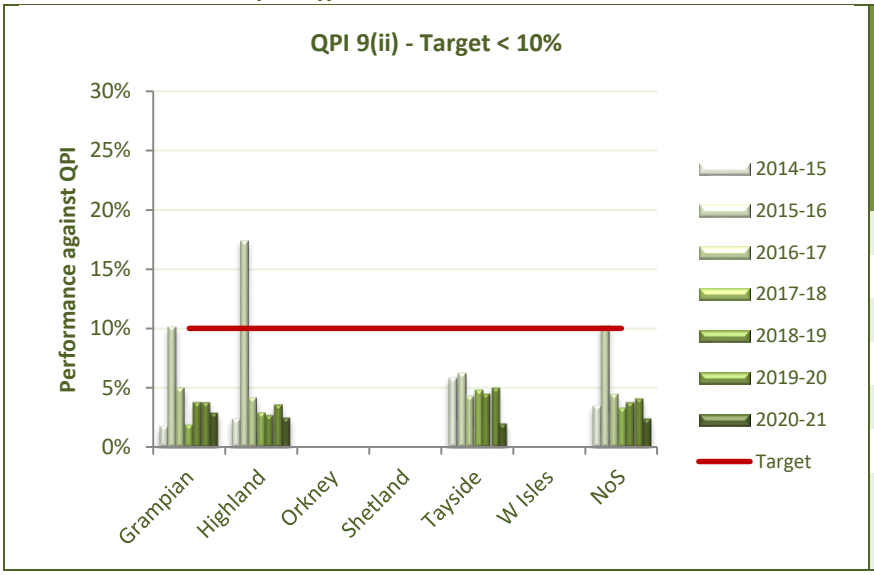
QPI 9	Anastomotic Dehiscence
Proportion of patients who undergo surgical resection for colorectal cancer with anastomotic leak as a post-operative complication.	

Specification (i) Patients undergoing colonic anastomosis



	Performance (%)	Numerator	Denominator
Grampian	**3.0%**	2	66
Highland	**4.9%**	3	61
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**4.4%**	4	90
W Isles	-	0	0
NoS	**4.1%**	**9**	**221**

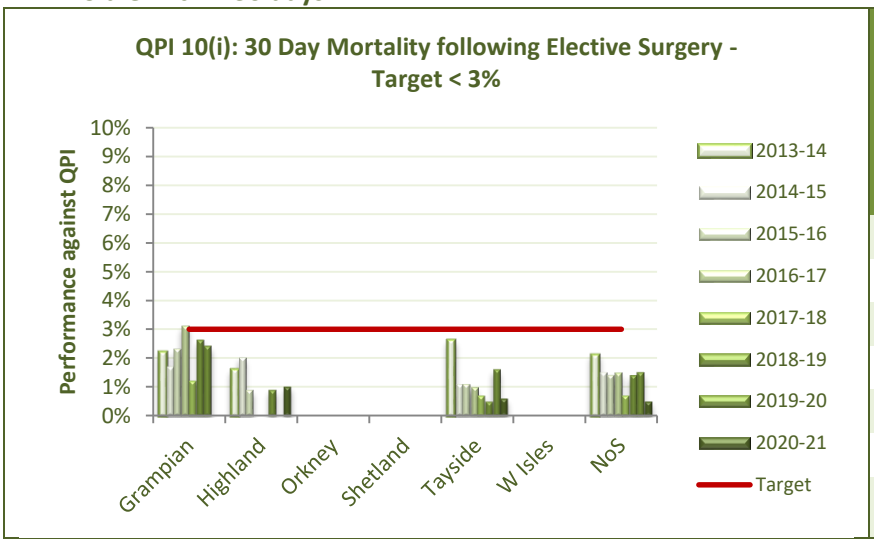
Specification (ii) Patients undergoing rectal anastomosis (including: anterior resection with total mesorectal excision (TME)).



	Performance (%)	Numerator	Denominator
Grampian	**2.9%**	1	34
Highland	**2.5%**	1	40
Orkney	-	0	0
Shetland*	-	-	-
Tayside	**2.0%**	1	50
W Isles	-	0	0
NoS	**2.4%**	**3**	**125**

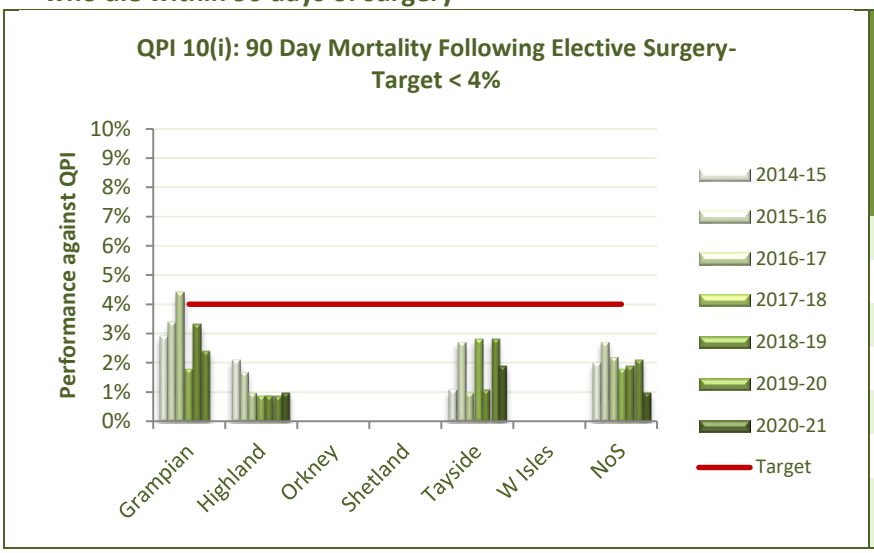
QPI 10	30 and 90 Day Mortality following Surgical Resection
Proportion of patients with colorectal cancer who die within 30 or 90 days of emergency or elective surgical resection.	

Specification (i) Number of patients with colorectal cancer who undergo elective surgical resection who die within 30 days



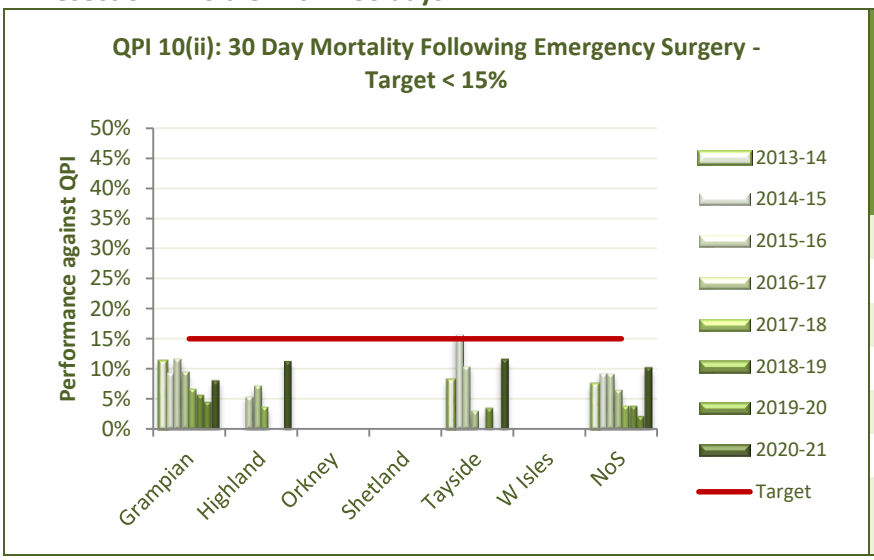
	Performance (%)	Numerator	Denominator
Grampian	**0.0%**	0	153
Highland	**1.0%**	1	97
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**0.6%**	1	156
W Isles	-	0	0
NoS	**0.5%**	**2**	**411**

Specification (i) Number of patients with colorectal cancer who undergo elective surgical resection who die within 90 days of surgery



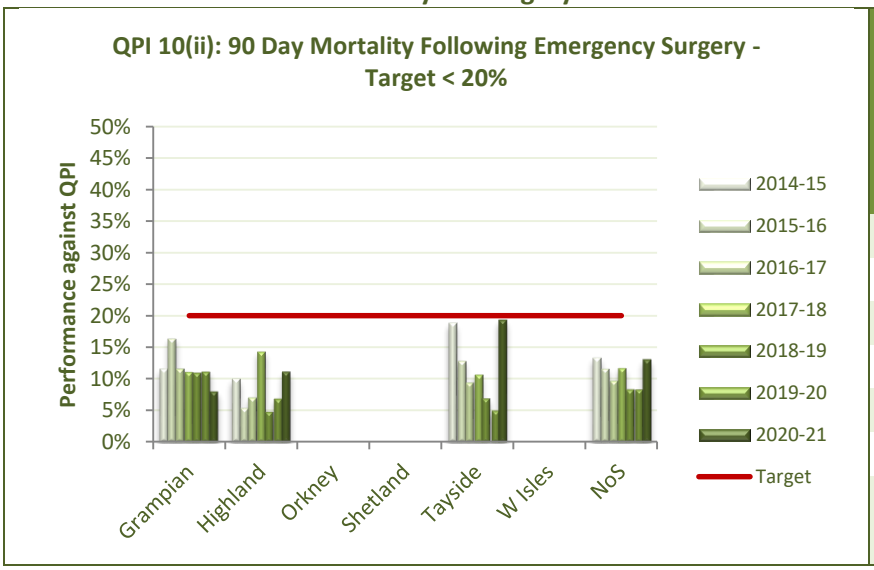
	Performance (%)	Numerator	Denominator
Grampian	**0.0%**	0	145
Highland	**1.0%**	1	97
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**1.9%**	3	155
W Isles	-	0	0
NoS	**1.0%**	**4**	**402**

Specification (ii) Number of patients with colorectal cancer who undergo emergency surgical resection who die within 30 days



	Performance (%)	Numerator	Denominator
Grampian	**8.0%**	2	25
Highland	**11.1%**	2	18
Orkney	-	0	0
Shetland	-	0	0
Tayside	**11.5 %**	3	26
W Isles	-	0	0
NoS	**10.1%**	**7**	**69**

Specification (ii) Number of patients with colorectal cancer who undergo emergency surgical resection who die within 90 days of surgery



	Performance (%)	Numerator	Denominator
Grampian	**8.0%**	2	25
Highland	**11.1%**	2	18
Orkney	-	0	0
Shetland	-	0	0
Tayside	**19.2%**	5	26
W Isles	-	0	0
NoS	**13.0%**	**9**	**69**

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 2020-2021 data due to 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.	

QPI 12 - Specification (iii) Number of patients with colorectal cancer who undergo neo-adjuvant chemoradiotherapy, radiotherapy or adjuvant chemotherapy with curative intent who die within 30 days of treatment.

QPI 12(iii) 30 Day Mortality - Radiotherapy - Target < 1%

	Performance (%)	Numerator	Denominator
Grampian	**0%**	0	31
Highland	**0%**	0	5
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**0%**	0	16
W Isles	-	0	0
NoS	**0%**	**0**	**56**

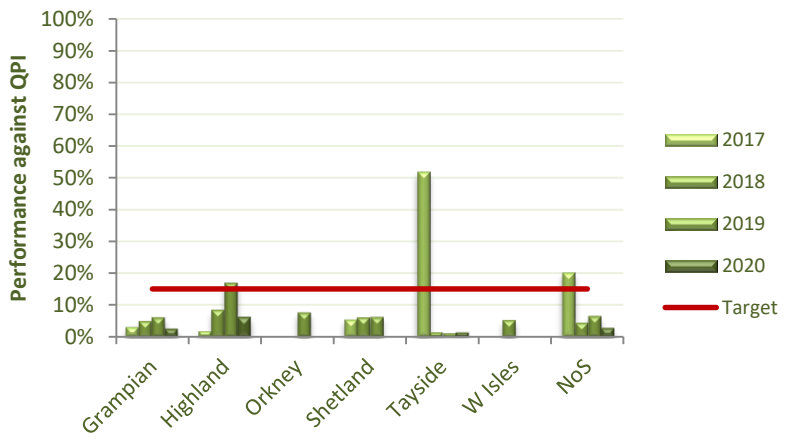
QPI 12 - Specification (iii) Number of patients with colorectal cancer who undergo neo-adjuvant chemoradiotherapy, radiotherapy or adjuvant chemotherapy with curative intent who die within 90 days of treatment.

QPI 12(iii) 90 Day Mortality - Radiotherapy - Target < 1%

	Performance (%)	Numerator	Denominator
Grampian	**0%**	0	31
Highland	**0%**	0	5
Orkney*	-	-	-
Shetland*	-	-	-
Tayside	**0%**	0	16
W Isles	-	0	0
NoS	**0%**	**0**	**56**

All patients who died 30 and 90-days following treatment have been reviewed at board level and discussed by the regional clinical teams.

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	**2.5%**	10	398.6
Highland	**5.9%**	13	221.2
Orkney	**0%**	0	14.8
Shetland	**0%**	0	15.2
Tayside	**1.4%**	5	347.6
W Isles	**0%**	0	22
NoS	**2.7%**	**28**	**1019.4**

Due to the COVID-19 pandemic recruitment to clinical trials has decreased since 2019. This is partly due to all clinical trials across the UK being closed to recruitment on 13th March 2020. Trials began to reopen in a phased manner shortly after the closure based on local health board risk assessments. The cancer portfolio has since reopened the majority of trials and has been able to open new trials in all health boards. Impacts of COVID-19 on research staff have also effected the running of trials such as staff deployment to wards and COVID research.

References

1. Colorectal Cancer Clinical Performance Indicators, Version 3.4. Health Improvement Scotland. https://www.isdscotland.org/Health-Topics/Cancer/Cancer-Audit/docs/Colorectal/Colorectal-Cancer-QPI-Dataset-V3-4-Final.pdf
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 2020

Trial	Principle Investigator	Patients consented (Y/N)
ADD ASPIRIN	Trevor McGoldrick (Grampian) Douglas Adamson (Tayside) Russell Mullen (Highland)	Y
CORINTH	Leslie Samuel (Grampian)	
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)	Y
SOLSTICE	Leslie Samuel (Grampian)	Y
STAR-TReC	Ian Sanders (Tayside)	Y
TRIGGER	Leslie Samuel (Grampian)	N