

**West of Scotland Cancer Network**

**Colorectal Cancer  
Managed Clinical Network**



# **Audit Report**

## **Colorectal Cancer Quality Performance Indicators**

**Clinical Audit Data:  
1st April 2021 and 31st March 2022**

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# Colorectal Cancer QPI Overview

Patients diagnosed April 2021 - March 2022

Number of patients **1688**

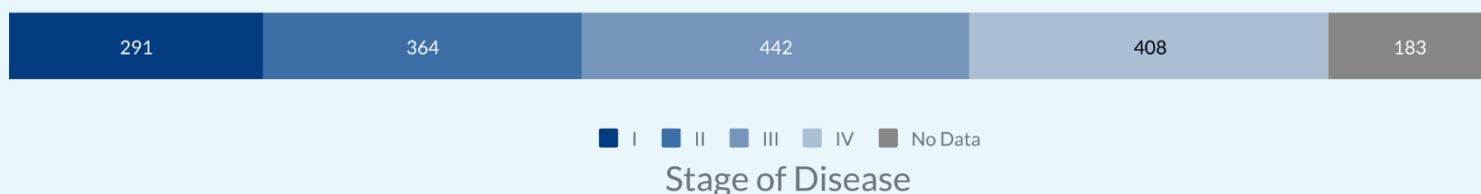
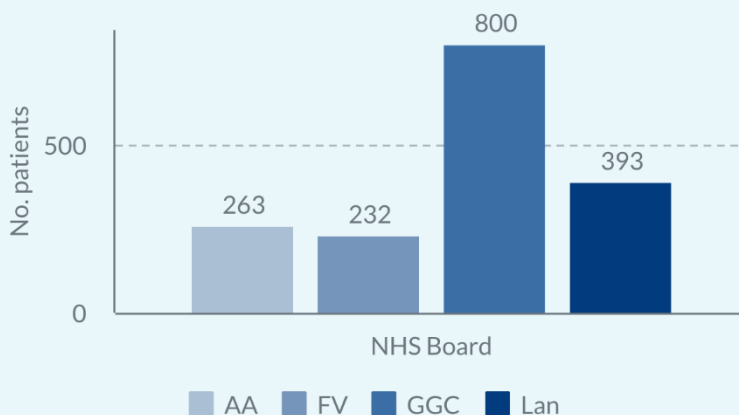
Median Age **70**

Gender of patients:

Male **57%**

Female **43%**

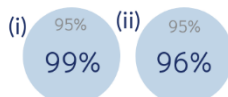
## Where are patients diagnosed



## Performance (%)

Target  
Performance  
2021-22  
difference from  
2020-21

QPI 1: Radiological Diagnosis & Staging



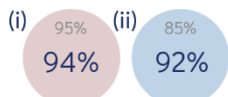
QPI 2: Pre-Operative Imaging of Colon



QPI 5: Lymph Node Yield



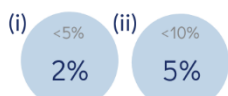
QPI 7: Surgical Margins



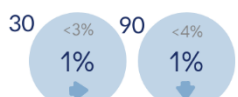
QPI 8: Re-operation Rates



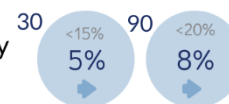
QPI 9: Anastomotic Dehiscence



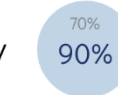
QPI 10(i): 30 & 90 Day Mortality following Elective Surgical Resection



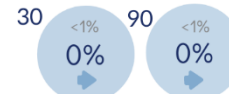
QPI 10(ii): 30 & 90 Day Mortality following Emergency Surgical Resection



QPI 11: Adjuvant Chemotherapy



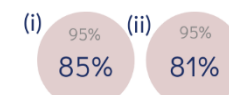
QPI 12: 30 & 90 Day Mortality following Neo-adjuvant Chemoradiotherapy



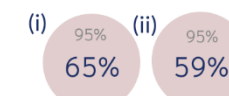
QPI 12: 30 & 90 Day Mortality following Radical Radiotherapy



QPI 15: Colorectal Liver Metastases



QPI 16: Assessment of MMR / MSI Status



Key Achievements:

- Excellent outcomes following radical treatment (QPI 8, 9, 10 and 12)

Areas for Improvement:

- Review of pathway for referral to HPB MDT for patients with colorectal liver metastases (QPI 15)
- MMR / MSI status testing was not universally rolled out until early 2022; performance anticipated to improve in future years (QPI 16)

# Executive Summary

## Introduction

This report presents an assessment of performance of the West of Scotland (WoS) Colorectal Cancer services relating to patients diagnosed in the twelve months between 1<sup>st</sup> April 2021 and 31<sup>st</sup> March 2022. Data was measured against v4.0 of the Colorectal Cancer Quality Performance Indicators (QPIs)<sup>1</sup>. This was the ninth consecutive year of analysis following the initial Healthcare Improvement Scotland (HIS) publication of colorectal cancer QPIs in 2012.

In order to ensure the success of the Cancer QPIs in driving quality improvement in cancer care, QPI definitions continue to be assessed and amended to ensure they remain clinically effective and relevant. Formal reviews of the colorectal cancer QPIs took place in 2017 and 2021; these clinically led reviews involve key clinicians from each of the Regional Cancer Networks. v4.0 changes made at the review in 2021 are implemented in full for the first time in this report.

## Results

A summary of the Colorectal Cancer Quality Performance Indicators for the 2021/2022 audit period is presented below, with a more detailed analysis of the results set out in the main report. Data are analysed by location of diagnosis or treatment, and illustrate NHS Board performance against each target and overall regional performance for each performance indicator. As patients within NHS Greater Glasgow and Clyde are managed by different MDTs, the GGC figures are presented by the following to reflect this: North Glasgow; South Glasgow and Clyde.

## Summary of WoSCAN Colorectal Cancer QPI results 2021-22

Key	
	Above Target Result
	Below Target Result
-	< 5 patients included within measure

QPI	Target	Year	AA	FV	NG	SG	Clyde	GGC	Lan	WoS
<b>QPI 1(i):</b> Proportion of patients with colon cancer who undergo CT chest, abdomen and pelvis before definitive treatment.	95%	2021-22	100% (114/114)	99% (91/92)	98% (101/103)	99% (133/134)	100% (102/102)	99% (336/339)	100% (146/146)	99% (687/691)
		2020-21								
		2019-20								
<b>QPI 1(ii):</b> Proportion of patients with rectal cancer who undergo CT chest, abdomen and pelvis and MRI pelvis before definitive treatment.	95%	2021-22	96% (22/23)	100% (27/27)	90% (46/51)	93% (27/29)	98% (53/54)	94% (126/134)	98% (43/44)	96% (218/228)
		2020-21								
		2019-20								
<b>QPI 2:</b> Proportion of patients with colorectal cancer who undergo surgical resection who have the whole colon visualised by colonoscopy or CT colonography pre-operatively, unless the non-visualised segment of the colon is to be removed.	95%	2021-22	90% (93/103)	89% (94/106)	87% (123/141)	85% (121/142)	77% (103/133)	83% (347/416)	88% (133/152)	86% (667/777)
		2020-21	80%	88%	85%	83%	81%	83%	85%	84%
		2019-20	96%	96%	100%	99%	98%	99%	99%	98%
† <b>QPI 5:</b> Proportion of patients with colorectal cancer who undergo surgical resection where ≥ 12 lymph nodes are pathologically examined.	90%	2021-22	96% (136/141)	96% (94/98)	89% (149/167)	91% (155/170)	88% (124/141)	90% (428/478)	96% (168/175)	93% (826/892)
		2020-21								
		2019-20								
† <b>QPI 7(i):</b> Proportion of patients with rectal cancer who undergo surgical resection in which the circumferential margin is clear of tumour (primary surgery and neoadjuvant short course radiotherapy).	95%	2021-22	81% (13/16)	87% (13/15)	95% (38/40)	100% (12/12)	100% (28/28)	98% (78/80)	95% (18/19)	94% (122/130)
		2020-21								
		2019-20								

QPI	Target	Year	AA	FV	NG	SG	Clyde	GGC	Lan	WoS
† QPI 7(ii): Proportion of patients with rectal cancer who undergo surgical resection in which the circumferential margin is clear of tumour (neoadjuvant chemotherapy, long course radiotherapy, long course chemoradiotherapy or short course radiotherapy with long course intent).	85%	2021-22	-	-	100% (17/17)	88% (14/16)	88% (21/24)	91% (52/57)	92% (12/13)	92% (70/76)
		2020-21								
		2019-20								
† QPI 8: 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).	<10%	2021-22	6% (9/153)	3% (4/122)	4% (7/182)	4% (8/186)	3% (5/166)	4% (20/534)	7% (14/201)	5% (47/1010)
		2020-21	11%	1%	3%	4%	7%	5%	9%	6%
		2019-20	6%	4%	5%	4%	8%	6%	6%	6%
† QPI 9(i): Proportion of patients who undergo colonic anastomosis with anastomotic leak as a post-operative complication.	< 5%	2021-22	1% (1/77)	2% (1/64)	0% (0/59)	2% (2/91)	0% (0/51)	1% (2/201)	7% (7/101)	2% (11/443)
		2020-21								
		2019-20								
† QPI 9(ii): Proportion of patients who undergo rectal anastomosis with anastomotic leak as a post-operative complication.	< 10%	2021-22	2% (1/50)	3% (1/31)	5% (4/74)	5% (3/60)	5% (3/64)	5% (10/198)	6% (3/54)	5% (15/333)
		2020-21								
		2019-20								
† QPI 10(i): Proportion of patients with colorectal cancer who die within 30 days of elective surgical resection.	< 3%	2021-22	2% (2/125)	0% (0/105)	0% (0/157)	1% (1/163)	1% (2/145)	1% (3/465)	1% (1/156)	1% (6/851)
		2020-21	2%	1%	0%	1%	2%	1%	1%	1%
		2019-20	2%	3%	0%	1%	0%	0%	1%	1%
† QPI 10(i): Proportion of patients with colorectal cancer who die within 90 days of elective surgical resection.	< 4%	2021-22	2% (3/122)	0% (0/103)	0% (0/151)	1% (1/160)	2% (3/137)	1% (4/448)	2% (3/146)	1% (10/819)
		2020-21	2%	1%	0%	3%	6%	3%	3%	3%
		2019-20	3%	5%	1%	2%	0%	1%	1%	2%

QPI	Target	Year	AA	FV	NG	SG	Clyde	GGC	Lan	WoS
† QPI 10(ii): Proportion of patients with colorectal cancer who die within 30 days of emergency surgical resection.	< 15%	2021-22	14% (4/28)	6% (1/15)	0% (0/28)	0% (0/23)	0% (0/20)	0% (0/71)	7% (3/41)	5% (8/157)
		2020-21	0%	0%	0%	18%	6%	8%	5%	5%
		2019-20	8%	11%	8%	15%	7%	10%	10%	10%
† QPI 10(ii): Proportion of patients with colorectal cancer who die within 90 days of emergency surgical resection.	< 20%	2021-22	14% (4/28)	6% (1/17)	11% (3/28)	0% (0/23)	0% (0/20)	4% (3/71)	10% (4/41)	8% (12/157)
		2020-21	9%	10%	0%	18%	6%	8%	7%	8%
		2019-20	12%	22%	8%	19%	7%	11%	12%	13%
QPI 11: Proportion of patients who are ≤ 74 years of age at diagnosis with stage III colorectal cancer that receive adjuvant chemotherapy.	70%	2021-22	97% (28/29)	87% (27/31)	90% (35/39)	97% (37/38)	84% (31/37)	90% (103/114)	85% (35/41)	90% (193/215)
		2020-21								
		2019-20								
QPI 12(i): Proportion of patients with colorectal cancer who die within 30 days of <b>neoadjuvant chemoradiotherapy</b> treatment with curative intent.	< 1%	2021-22	0% (0/8)	0% (0/12)	0% (0/9)	0% (0/18)	0% (0/27)	0% (0/54)	0% (0/23)	0% (0/97)
		2020-21	0%	-	0%	0%	0%	0%	0%	0%
		2019-20	0%	0%	0%	0%	0%	0%	0%	0%
QPI 12(ii): Proportion of patients with colorectal cancer who die within 90 days of <b>neoadjuvant chemoradiotherapy</b> treatment with curative intent.	< 1%	2021-22	0% (0/7)	0% (0/10)	0% (0/8)	0% (0/18)	0% (0/24)	0% (0/50)	0% (0/21)	0% (0/88)
		2020-21	0%	-	0%	0%	0%	0%	0%	0%
		2019-20	0%	0%	0%	0%	0%	0%	0%	0%
QPI 12(i): Proportion of patients with colorectal cancer who die within 30 days of <b>radiotherapy</b> treatment with curative intent.	< 1%	2021-22	0% (0/13)	-	0% (0/9)	0% (0/10)	0% (0/15)	0% (0/34)	0% (0/13)	0% (0/64)
		2020-21	0%	0%	0%	0%	0%	0%	-	0%
		2019-20	0%	-	0%	0%	0%	0%	0%	0%

QPI	Target	Year	AA	FV	NG	SG	Clyde	GGC	Lan	WoS
<b>QPI 12(ii):</b> Proportion of patients with colorectal cancer who die within 90 days of <b>radiotherapy</b> treatment with curative intent.	< 1%	2021-22	0% (0/13)	-	0% (0/9)	0% (0/10)	0% (0/14)	0% (0/33)	0% (0/12)	0% (0/61)
		2020-21	0%	0%	0%	13%	0%	4%	-	2%
		2019-20	14%	-	0%	0%	0%	0%	0%	0%
<b>QPI 15(i):</b> Proportion of patients with a new diagnosis of <b>synchronous</b> colorectal liver metastases who are referred to a HPB MDT to discuss their management.	95%	2021-22	100% (5/5)	92% (11/12)	64% (7/11)	67% (10/15)	100% (8/8)	74% (25/34)	95% (21/22)	85% (62/73)
		2020-21								
		2019-20								
<b>QPI 15(ii):</b> Proportion of patients with a new diagnosis of <b>metachronous</b> colorectal liver metastases who are referred to a HPB MDT to discuss their management.	95%	2021-22	100% (7/7)	-	-	80% (4/5)	-	88% (7/8)	-	81% (13/16)
		2020-21								
		2019-20								
<b>QPI 16(i):</b> Proportion of patients with colorectal cancer who have MMR/MSI status assessed.	95%	2021-22	48% (116/240)	62% (113/183)	77% (164/212)	71% (191/269)	72% (170/236)	73% (525/717)	63% (217/345)	65% (971/1485)
		2020-21								
		2019-20								
<b>QPI 16(i):</b> Proportion of patients with results suggestive of Lynch Syndrome who are referred to genetics	90%	2021-22	-	45% (5/11)	80% (8/10)	-	40% (4/10)	67% (16/24)	67% (4/6)	59% (26/44)
		2020-21								
		2019-20								

† QPIs 5, 7, 8, 9 and 10 are analysed by Board/hospital of surgery.



## Conclusions

The Colorectal Cancer MCN is encouraged by the results presented in this report which demonstrate that patients with colorectal cancer in the WoS continue to receive a consistently high standard of care. Targets were met at regional level for all but four of the QPIs reported with excellent outcomes for QPIs related to radical treatment; surgery, radiotherapy and chemotherapy. This reflects the very high quality of care provided by Colorectal Cancer MDTs across the WoS and allows the MCN to focus on the aspects of the service that did not achieve the QPI target this year.

Two new QPIs were reported for the first time; these have been challenging to meet. QPI 15 focusses on the referral of patients diagnosed with colorectal cancer liver metastases to a HPB MDT. The results from this first year of reporting are difficult to interpret and would benefit from regional discussion of the referral pathways of such patients to HPB MDTs. There is currently an NHSGGC MDT specifically for liver metastases but this MDT does not provide a service for other WoSCAN Boards. It is likely that this QPI will be challenging to meet across the region without expanding the role of the NHSGGC Liver Mets MDT to provide a regional function.

QPI 16 focusses on MMR/MSI testing of patients and referral to genetics. MMR/MSI testing was universally rolled out across WoSCAN part way through the reporting period and as a result performance against specification (i) is anticipated to improve in the 2022-23 reporting period. In addition, the way that specification (ii) was measured did not take into account results of MLH1 promoter methylation testing, resulting in some patients erroneously failing to meet this measure. Amendments have since been made to the definition for specification (ii) to take into account MLH1 promoter methylation testing and as such performance against specification (ii) is also anticipated to improve in the next reporting period.

Actions identified are summarised below.

### Action Required:

- **NHS Lanarkshire to feed back to MCN on the outcome of the MDT review of patients having anastomotic leak requiring intervention following anastomosis of the colon.**
- **MCN to review data collection and referral pathways of patients with colorectal cancer liver metastases to HPB MDTs across WOSCAN Boards to identify any constraints to the discussion of these patients and the potential to expand the role of the NHSGGC Liver Mets MDT to provide a regional function.**
- **MCN to clarify how molecular pathology results are reported to referring clinicians and inform all NHS Boards of this process, highlighting the need to ensure that patients are transferred on to genetics where appropriate.**

The MCN will actively take forward regional actions identified and NHS Boards are asked to develop local Action/Improvement Plans in response to the findings presented in the report. A summary of actions for each NHS Board has been included within the Action Plan templates in Appendix 3. **Completed Action Plans should be returned to WoSCAN in a timely manner to allow the plans to be reviewed at the Regional Cancer Oversight Group.** Please note actions have been categorised into groupings (for example surgery, oncology, pathology or data capture) for internal management purposes to allow regional trends to be identified and co-ordinate regional actions across multiple tumour groups where appropriate. Progress against these plans will be monitored by the MCN Advisory Board and any service or clinical issue which the Advisory Board considers not to have been adequately addressed will be escalated to the NHS Board Territorial Lead Cancer Clinician and Regional Lead Cancer Clinician.

## 1. Introduction

This report presents an assessment of performance of West of Scotland (WoS) Colorectal Cancer services relating to patients diagnosed in the twelve months between 1 April 2021 and 31 March 2022. These audit data underpin much of the regional development/service improvement work of the Managed Clinical Network (MCN) and regular reporting of activity and performance is a fundamental requirement of an MCN to assure the quality of care delivered across the region.

In order to ensure the success of the National Cancer QPIs in driving quality improvement in cancer care across NHS Scotland it is critical that QPIs continue to be clinically relevant and focus on areas which will result in improvements to the quality of patient care. A programme of formal review of all QPIs was implemented whereby all tumour specific QPIs were reviewed following three years of comparative reporting. Formal reviews of the Colorectal cancer QPIs was undertaken in 2016 and 2020, with the revised QPIs (v3.0) published in May 2017 and v4.0 definitions published in July 2021<sup>1</sup>.

## 2. Background

Colorectal cancer services are organised around MDTs serving 2.5 million people<sup>2</sup> in four NHS Boards across the West of Scotland. The colorectal cancer MCN continues to support and develop the clinical service for approximately 1700 colorectal cancer patients per annum. The effective management of these patients throughout the region continues to rely on co-ordinated delivery of treatment and care that requires close collaboration of professions from a range of specialties. Currently, there are six local Multi-Disciplinary Team (MDT) meetings held across the West of Scotland (WoS); these MDTs and their constituent hospital units are detailed in the table below.

MDT	Constituent Hospital(s)
Ayrshire (AA)	University Hospital Crosshouse, University Hospital Ayr
Clyde	Royal Alexandra Hospital, Inverclyde Royal Hospital, Vale of Leven
North Glasgow (NG)	Glasgow Royal Infirmary, Stobhill Hospital
South Glasgow (SG)	Queen Elizabeth University Hospital, New Victoria Hospital, Gartnavel General Hospital
Forth Valley (FV)	Forth Valley Royal Hospital
Lanarkshire (LAN)	University Hospital Hairmyres, University Hospital Wishaw, University Hospital Monklands

### 2.1 National Context

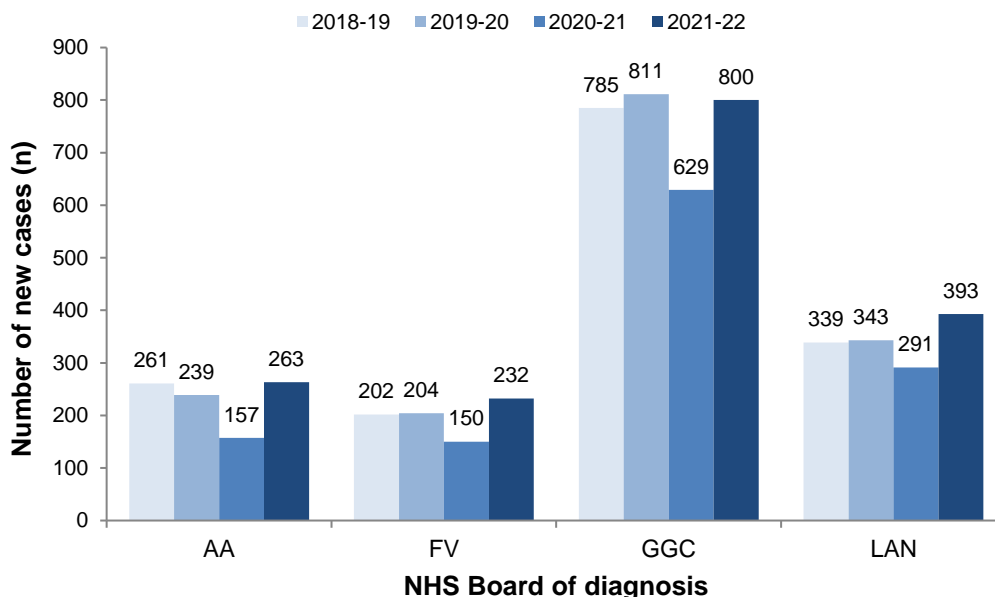
Colorectal cancer is the third most common cancer in Scotland with around 4,000 new diagnoses nationally each year<sup>3</sup>. From 2010 to 2020, the incidence of colorectal cancer decreased by 21%, although some of this decrease is due to a dip in numbers of patients diagnosed in 2020 due to the COVID-19 pandemic<sup>3</sup>. Despite this, actual numbers are predicted to increase by a quarter over the coming decade due to the aging population<sup>4</sup>.

Overall cancer mortality rates show that colorectal cancer is the second most common cause of cancer deaths. From 2010 to 2020, mortality rates relating to colorectal cancer in Scotland have decreased by 3%<sup>5</sup>. Latest figures show an improvement in age standardised net survival for colorectal cancer with 59.4% of men and women diagnosed between 2013 and 2017 surviving at least five years after diagnosis, compared to a 46.4% of men and 49.9% of women for those diagnosed between 1993 and 1997<sup>6</sup>.

Early diagnosis of colorectal cancer is very important in maximising options for treatment and increasing the likelihood of cure. The Scottish Bowel Screening Programme was introduced to increase early detection of cancer and therefore lead to further improvements in survival<sup>7</sup>. The programme is designed to facilitate the early detection and cure of asymptomatic cancers as well as reduce the overall incidence of colorectal cancer through the removal of precancerous polyps.

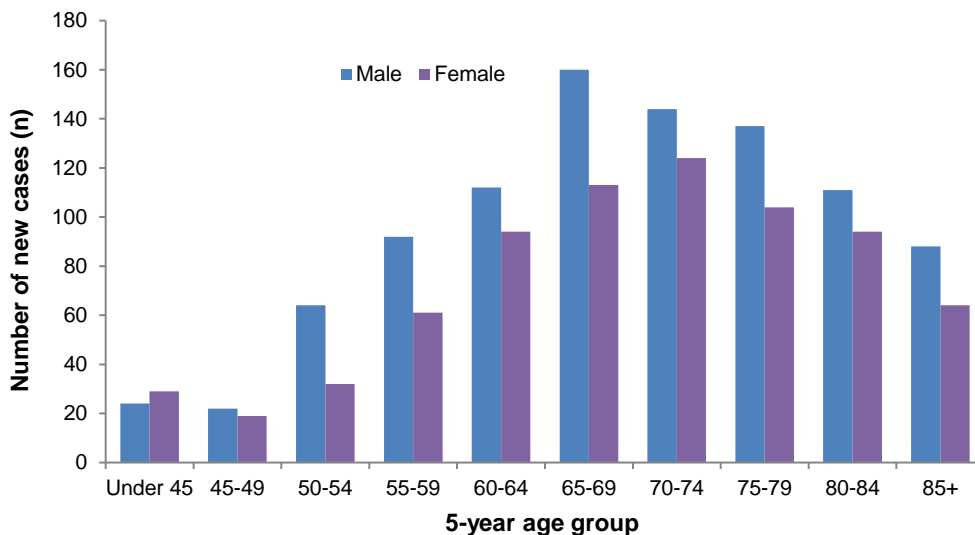
## 2.2 West of Scotland Context

A total of 1688 cases of colorectal cancer were diagnosed and identified by audit in the WoS between the 1<sup>st</sup> April 2021 and 31<sup>st</sup> March 2022. The number of patients diagnosed within each NHS Board is presented in Figure 1. As the largest WoS Board, 47% of all new cases of colorectal cancer were diagnosed in NHS Greater Glasgow and Clyde (GGC) which is in line with population estimates for this Board. There was an increase in numbers of patients being diagnosed with colorectal cancer in the West of Scotland in 2021-22 compared with 2020-21, where numbers of patients was considerably lower due to the impact of the COVID-19 pandemic.



**Figure 1: Number of new cases diagnosed with colorectal cancer by NHS Board of diagnosis between 1<sup>st</sup> April 2018 and 31<sup>st</sup> March 2022.**

Colorectal cancer occurs most frequently later in life. Figure 2 illustrates the number of new cases in 2021-22 by age and gender. There are approximately 3 males diagnosed for every 2 females and the incidence of colorectal cancer is higher in males in most age groups.



**Figure 2: Number of new cases diagnosed with colorectal cancer in the West of Scotland between 1<sup>st</sup> April 2021 and 31<sup>st</sup> March 2022 by age and gender.**

## Patient Profile

Figure 3 shows the Scottish Index of Multiple Deprivation (SIMD) 2020 quintiles for patients diagnosed with colorectal cancer; with 1 equating to the most deprived postcodes and 5 equating to the least deprived.

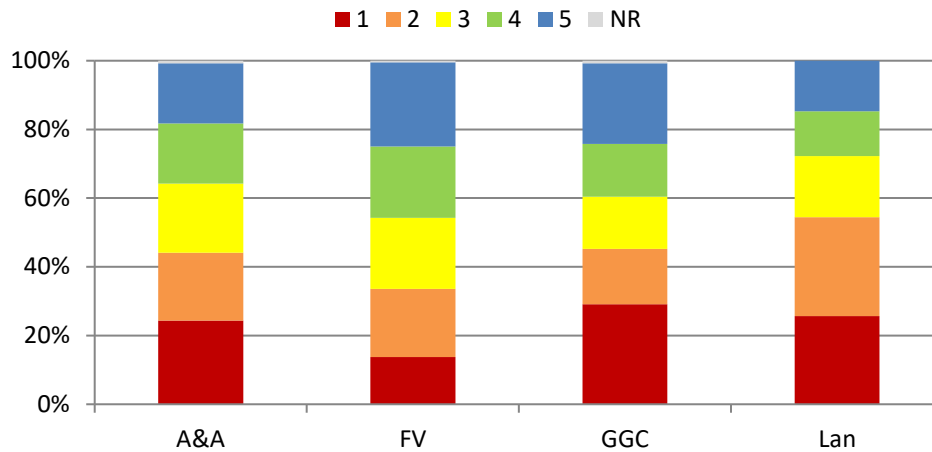


Figure 3: SIMD percentile for colorectal patients diagnosed in WoSCAN Boards in 2021-22

## Tumour Stage at Diagnosis

Staging is the assessment of the extent of disease and TNM 8 staging was used to stage colorectal cancers diagnosed in 2021-22. Figure 4 shows the distribution of colorectal cancer by final TNM stage. Following a considerable decline in the proportion of patients diagnosed with Stage 1 – Stage III disease in 2020/21 due to the COVID-19 pandemic, in 2021-22 the distribution of stage of disease was similar to pre-pandemic levels.

It was not possible to assign an overall stage for 183 patients (11%), a slight improvement on previous years. Audit of previous years data suggests that the vast majority of patients without TNM staging recorded were not for curative treatment. CT imaging was available for most, but T, N and M stage was not recorded within radiology reports or at MDT; suggesting that there was scope for improving recording of these data. There were only small numbers of patients where staging was not possible, for example patients not having imaging of polypectomy for early stage disease. In addition, the new MDT recording system will hopefully prompt recording of TNM at MDT and may also enable the recording of the reason why TNM could not be identified. It is hoped that these measures will result in improved recording in future years.

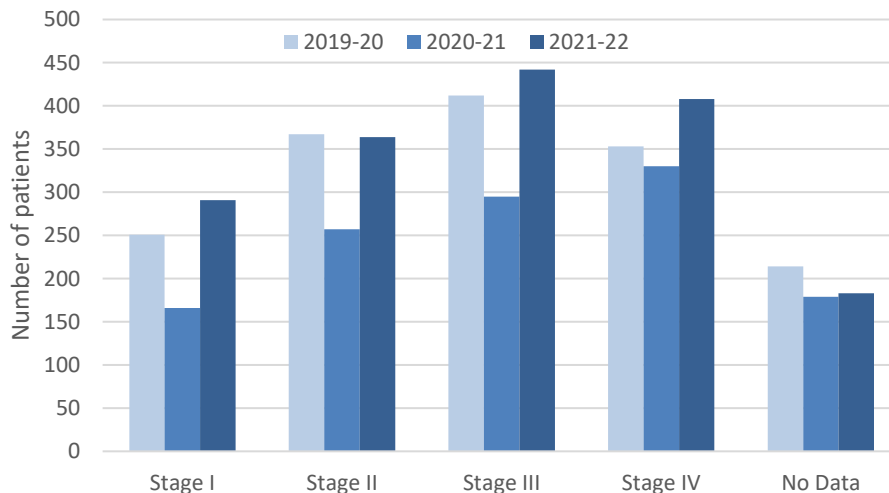


Figure 4: Final TNM Stage of colorectal cancer for patients diagnosed in 2019-2022

## Colorectal Cancer Treatment

Figure 5 shows the type of treatment colorectal cancer patients receive across WoSCAN during their first episode of care following diagnosis. Overall in WoSCAN 69% of patients received surgery for their colorectal cancer, most of these patients received surgery alone, however around a third had surgery in combination with chemotherapy or radiotherapy. 2021-22 figures are similar to those in 2019-20. There was a slight decrease in the proportion of patients having surgery during 2020-21 (66%); likely to be due to the higher proportion of patients presenting with more advanced disease during the COVID-19 pandemic.

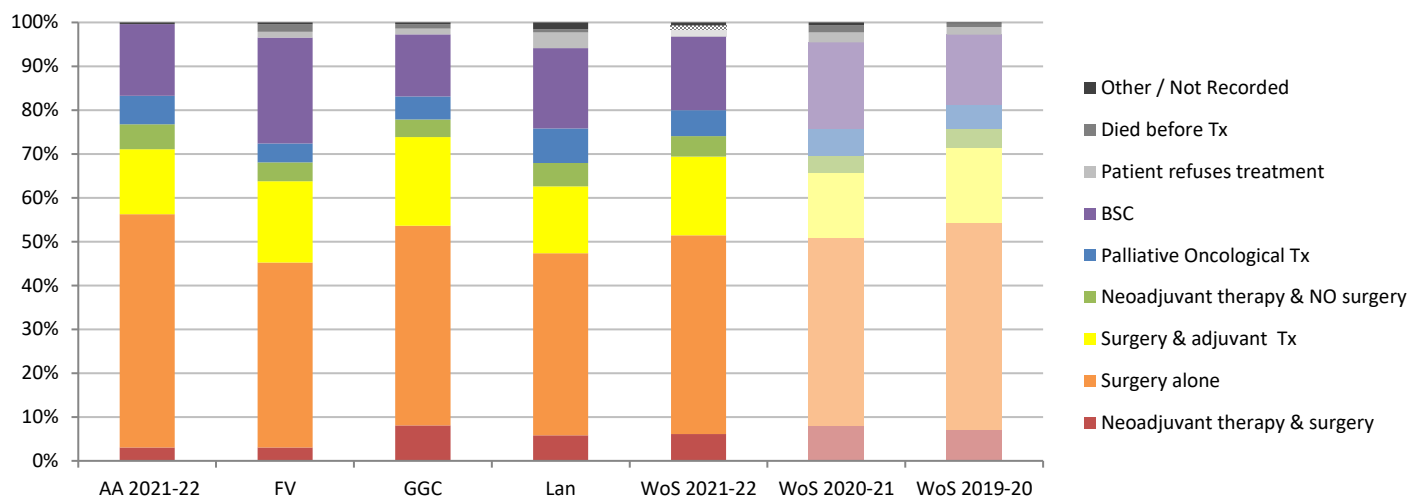


Figure 5: Type of treatment for patient diagnosed with colorectal cancer diagnosed in WoSCAN in 2021-22.

### 3. Methodology

Further detail on the audit and analysis methodology and data quality is available in the meta data within appendix 1.

### 4. Results and Action Required

Results of the analysis of the Colorectal Cancer QPIs are set out in the following sections. Data are presented by location of diagnosis or surgery, and illustrate NHS Board performance against each target and overall regional performance for each performance indicator.

Where the number of cases meeting the denominator criteria for any indicator is between one and four, the percentage calculation has not been shown on any associated charts or tables. This is to avoid any unwarranted variation associated with small numbers and to minimise the risk of disclosure. Any tables impacted by this restricted data are denoted with a dash (-). An asterisk (\*) is used to specify a denominator of zero. Any commentary provided by NHS Boards relating to the impacted indicators will however be included as a record of continuous improvement.

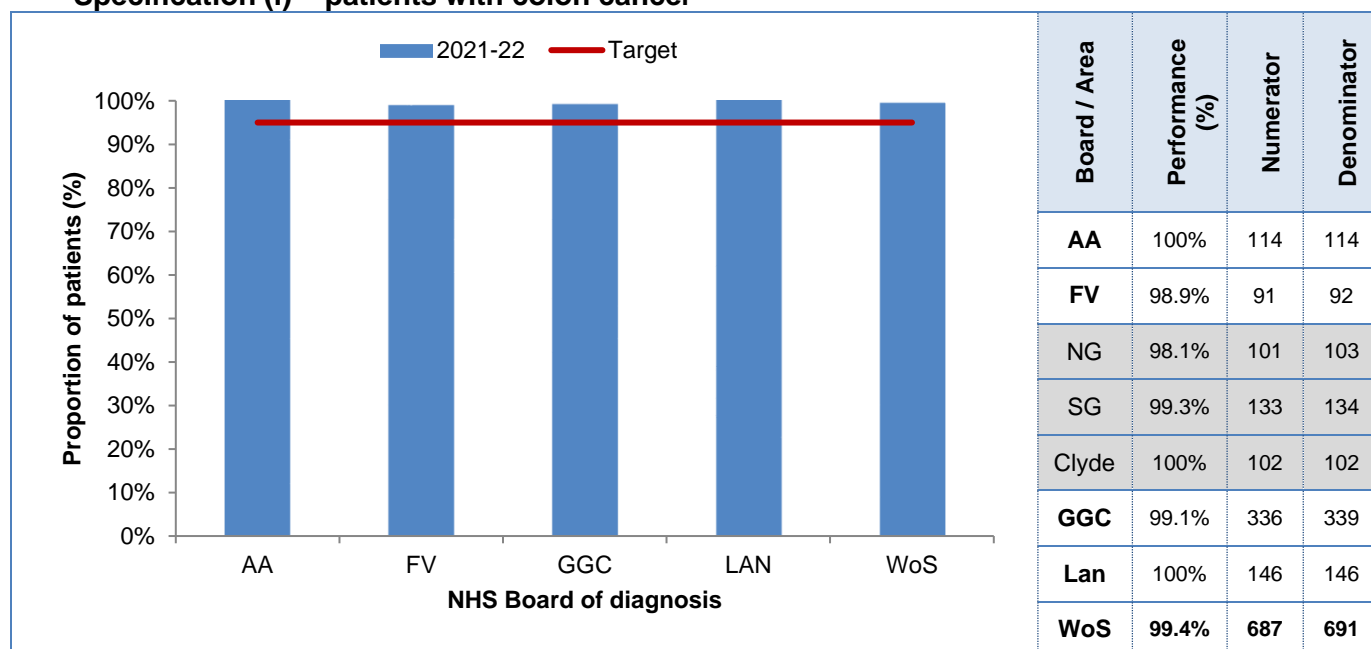
Specific regional and NHS Board actions have been identified to address issues highlighted through the data analysis.

## QPI 1: Radiological Diagnosis and Staging

Accurate staging is necessary to detect metastatic disease, guide treatment and avoid inappropriate surgery. All patients with colorectal cancer should be staged by contrast enhanced CT of the chest, abdomen and pelvis, to estimate the stage of disease, unless the use of intravenous iodinated contrast is contraindicated. MRI of the rectum is recommended for local staging of patients with rectal cancer. To reflect this, QPI 1 is split so colon cancer and rectal cancer are reported separately.

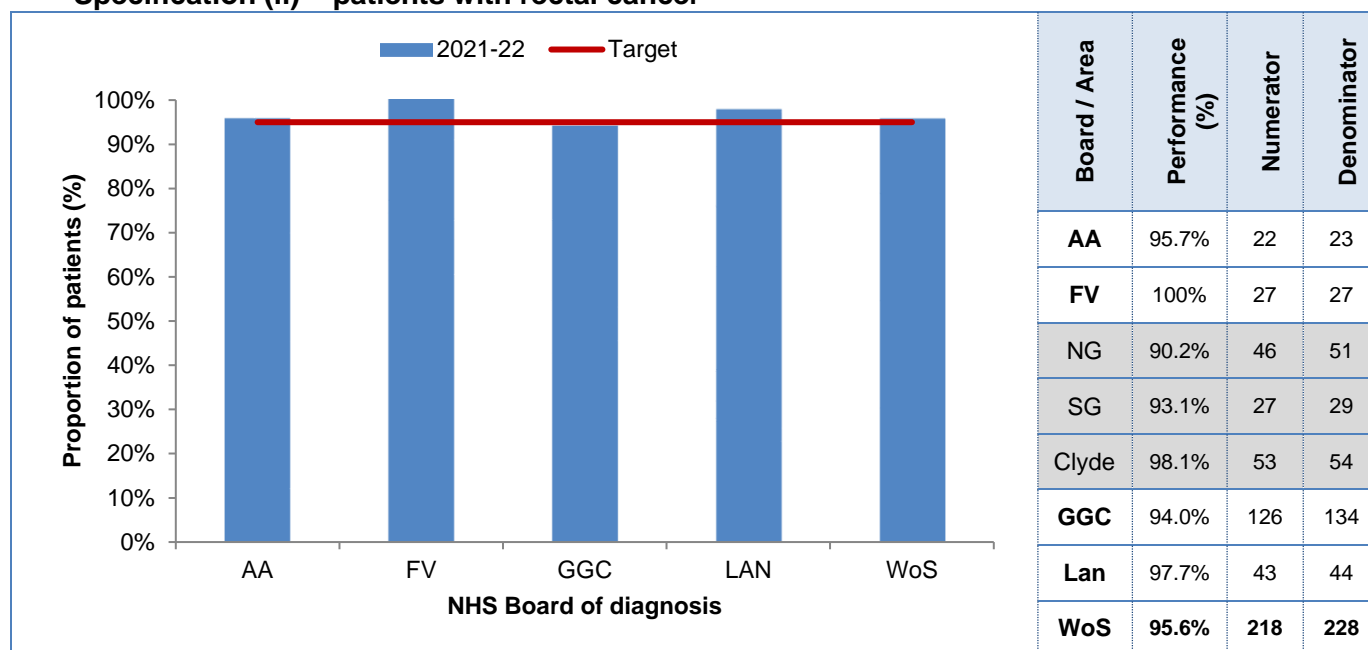
<b>QPI 1:</b>	Patients with colorectal cancer should be evaluated with appropriate imaging to detect extent of disease and guide treatment decision making.
<b>Numerator:</b>	(i) Number of patients with colon cancer who undergo CT chest, abdomen and pelvis before definitive treatment. (ii) All patients with rectal cancer undergoing definitive treatment who undergo CT chest, abdomen and pelvis and MRI pelvis before definitive treatment.
<b>Denominator:</b>	(i) All patients with colon cancer. (ii) All patients with rectal cancer undergoing definitive treatment (chemoradiotherapy or surgical resection).
<b>Exclusions:</b>	(i) Patients who refuse investigation, patients who undergo emergency surgery, patients undergoing supportive care only, patients who undergo palliative treatment (chemotherapy, radiotherapy, surgery or stenting) and patients who died before first treatment. (ii) Patients who refuse investigation, patients who undergo emergency surgery, 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) and patients who died before treatment.
<b>Target:</b>	95%

### Specification (i) – patients with colon cancer



The overall performance against QPI 1(i) for the WoS was 99.4%, with all Boards meeting the 95% target. Performance in 2021-22 is not comparable to that for previous years due to changes in the exclusions for this measure.

### Specification (ii) – patients with rectal cancer



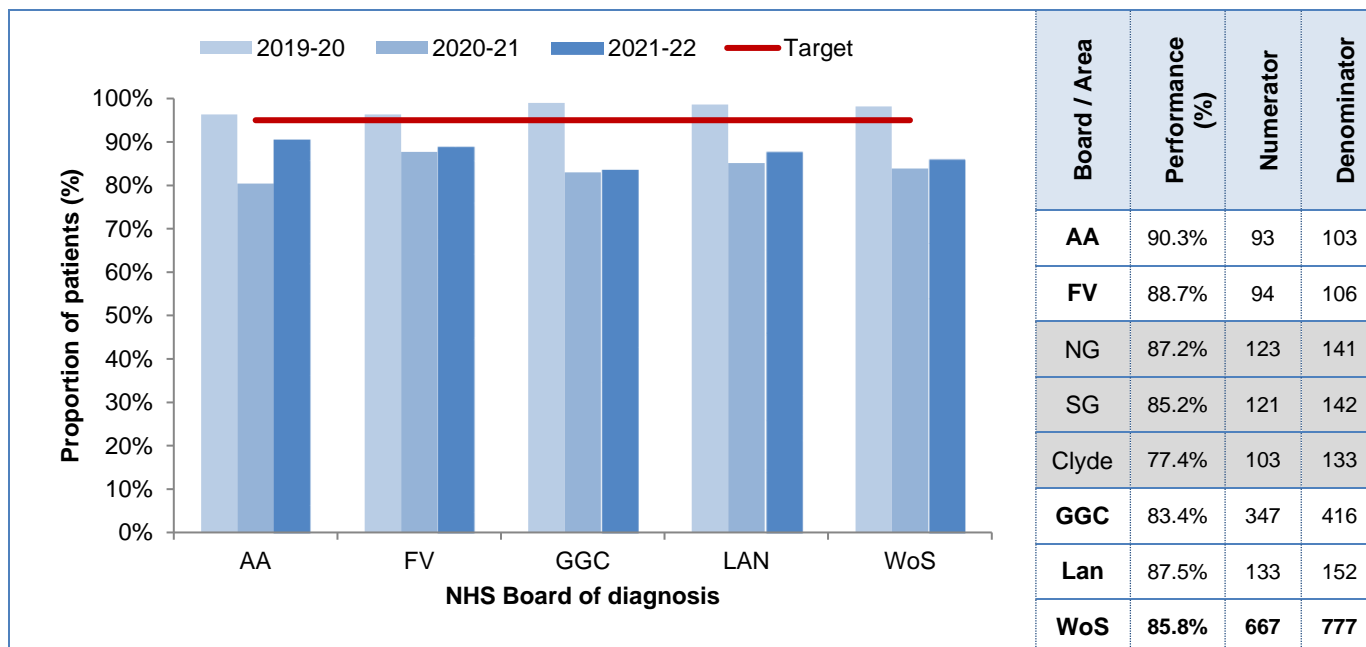
For QPI 1(ii), the 95% target was met at a regional level and by all NHS Boards in 2020-21 except NHSGGC where the target was narrowly missed due to lower performance in North Glasgow and South Glasgow. Performance in 2021-22 is not comparable to that for previous years due to changes in the exclusions for this measure.

Of the 7 patients that did not meet the QPI in North Glasgow and South Glasgow, 6 of the patients were thought to have sigmoid tumours prior to surgery. These patients with rectosigmoid tumours were appropriately managed and correctly treated; MRI imaging is unlikely to have altered the patient's management. Never-the-less, this issue has been highlighted to the North Glasgow MDT to ensure rectosigmoid tumours are considered for MRI scans, particularly in male patients.

## QPI 2: Pre-Operative Imaging of the Colon

Where colorectal cancer is suspected clinically, the whole of the large bowel should be examined to confirm a diagnosis of cancer. CT colonography can be used as a sensitive and safe alternative to colonoscopy.

<b>QPI 2:</b>	Patients with colorectal cancer undergoing elective surgical resection should have the whole colon visualised pre-operatively
<b>Numerator:</b>	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 the colon is to be removed.
<b>Denominator:</b>	All patients who undergo elective surgical resection for colorectal cancer.
<b>Exclusions:</b>	Patients who undergo palliative surgery. Patients who have incomplete bowel imaging due to obstructing tumour
<b>Target:</b>	95%



Performance against this QPI has dropped in the last two years due to changes in the timescale within which imaging is required. Consequently this QPI has not been met at a regional level or by any of the NHS Boards in the West of Scotland with regional performance at 85.8%, well below the target of 95%.

The QPI definition was changed at formal review to require imaging to be undertaken within 6 months of surgery. This has had the unintended consequence of some patients, who had neo-adjuvant therapy prior to surgery, failing the QPI as surgery was undertaken more than 6 months after they had the colon visualised. If the 2021-22 cohort were analysed using the previous definition (excluding the requirement for imaging to have been within 6 months of surgery) then performance would have been considerably better at 95.5%, meeting the 95% target. The definition of this QPI will be considered at the next formal review of colorectal cancer QPIs and it is anticipated that amendments will be made to take account of patients having imaging prior to neo-adjuvant therapy.



The majority of patients not having their whole colon visualised prior to elective surgery had an incomplete colonoscopy. A smaller number had no bowel imaging; a number of these patients had an incidental diagnosis of colorectal cancer at surgery or had palliative resection to relieve bowel obstruction.

## QPI 5: Lymph Node Yield

Maximising the number of lymph nodes resected and analysed enables reliable staging which influences treatment decision making.

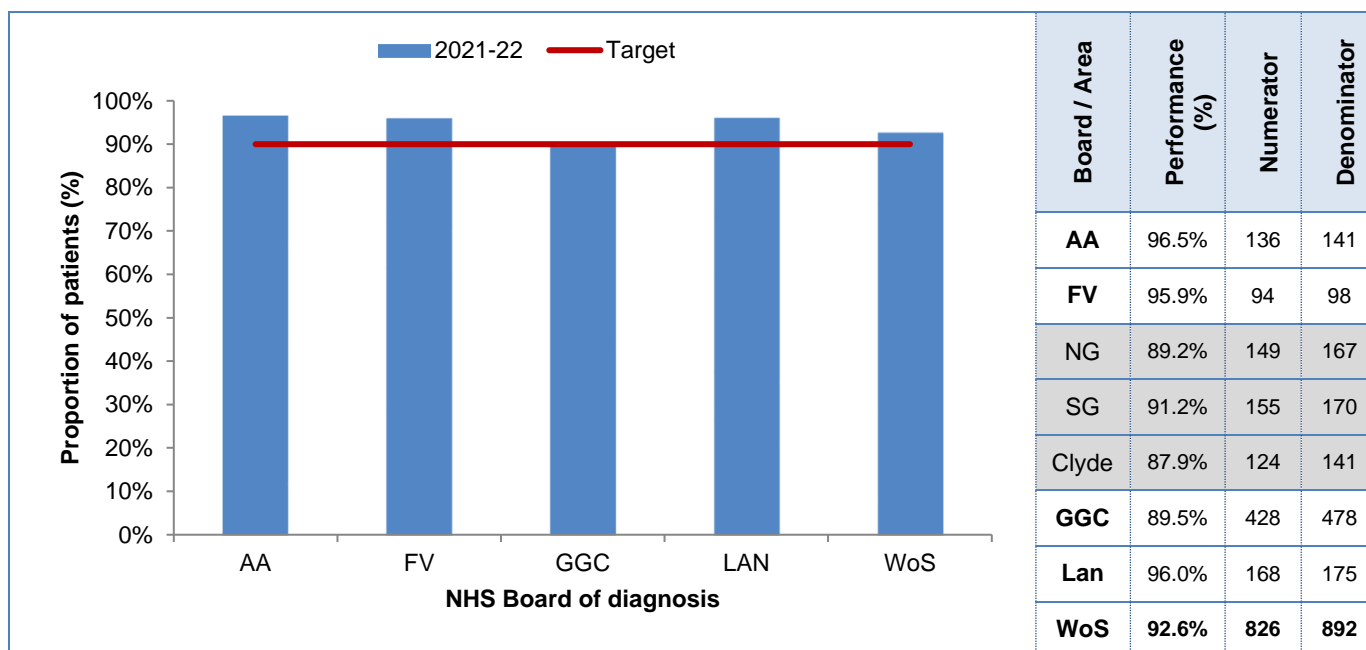
**QPI 5:** For patients undergoing resection for colorectal cancer the number of lymph nodes examined should be maximised.

**Numerator:** Number of patients with colorectal cancer who undergo curative surgical resection where  $\geq 12$  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%



All Boards met the QPI target of 90% with the exception of NHSGGC where the target was only very narrowly missed. The overall performance for the WoS was 92.6%. Performance in 2021-22 is not comparable to that for previous years due to changes in the exclusions for this measure.

Within North Glasgow and Clyde performance against this QPI was reviewed. No patterns were identified in the performance for individual surgeons nor any apparent changes in the quality of surgery. It was noted within Clyde that 3 patients not meeting this QPI underwent emergency resection. In response to these results performance against this QPI will be discussed at the North Glasgow MDT and Clyde will continue to monitor performance against this measure closely.

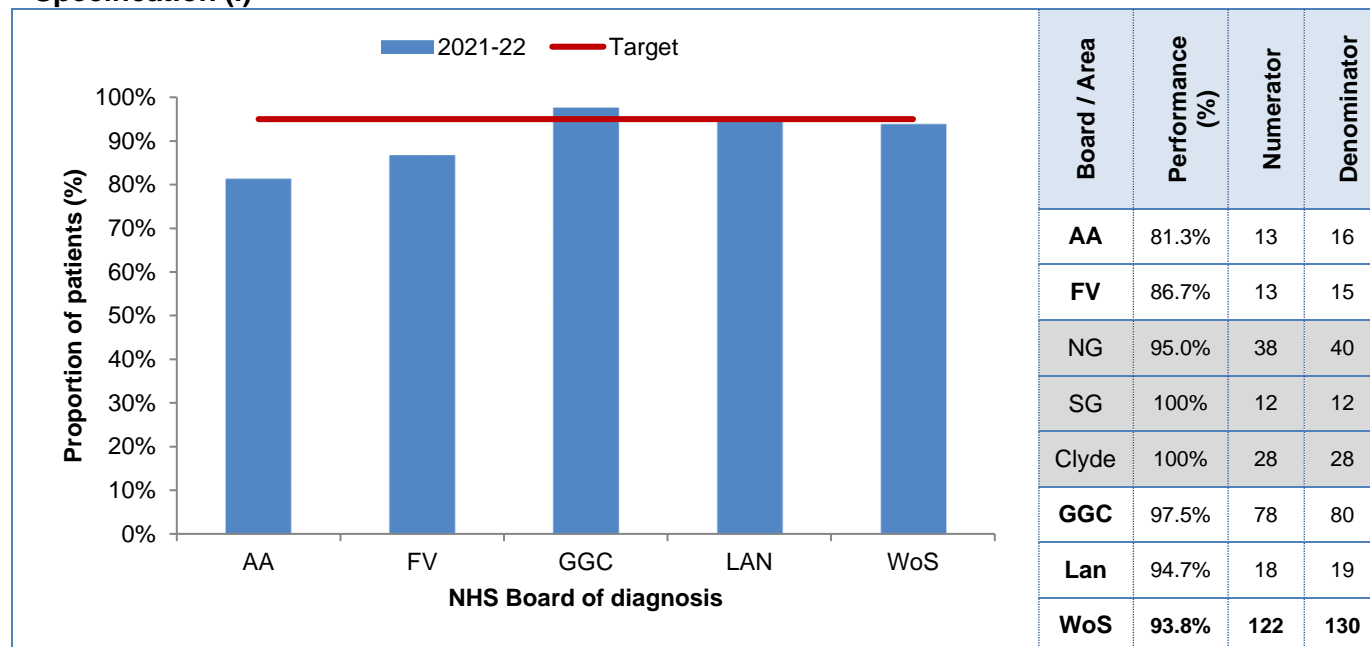
## QPI 7: Surgical Margins

The circumferential margin is an independent risk factor for the development of distant metastases and mortality. It is recognised that local recurrence of rectal cancer can be accurately predicted by pathological assessment of circumferential margin involvement in these tumours.

This indicator is a measure of the quality of both pre-operative assessment and resection.

<b>QPI 7:</b>	Rectal cancers undergoing surgical resection should be adequately excised.
<b>Numerator:</b>	<ul style="list-style-type: none"> <li>(i) 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.</li> <li>(ii) Number of patients with rectal cancer who undergo elective surgical resection following neo-adjuvant chemotherapy, long course radiotherapy, long course chemoradiotherapy or short course radiotherapy with long course intent in which the circumferential margin is clear of tumour.</li> </ul>
<b>Denominator:</b>	<ul style="list-style-type: none"> <li>(i) All patients with rectal cancer who undergo elective primary surgical resection or immediate/early surgical resection following neo-adjuvant short course radiotherapy.</li> <li>(ii) All patients with rectal cancer who undergo elective surgical resection following neo-adjuvant chemotherapy, long course radiotherapy, long course chemoradiotherapy or short course radiotherapy with long course intent (delay to surgery).</li> </ul>
<b>Exclusions:</b>	<ul style="list-style-type: none"> <li>(i) Patients who undergo transanal endoscopic microsurgery (TEM) / Transanal Minimally Invasive Surgery (TAMIS) or transanal resection of tumour (TART).</li> <li>(ii) Patients who undergo transanal endoscopic microsurgery (TEM) / Transanal Minimally Invasive Surgery (TAMIS) or transanal resection of tumour (TART).</li> </ul>
<b>Target:</b>	<ul style="list-style-type: none"> <li>(i) 95%</li> <li>(ii) 85%</li> </ul>

### Specification (i)



NHSGGC was the only NHS Boards in the WoS to meet the 95% target in 2021-22 and consequently the QPI target was not met at a regional level with 93.8% of patients having clear circumferential margins. Performance in 2021-22 is not comparable to that for previous years due to changes in the exclusions for this measure.

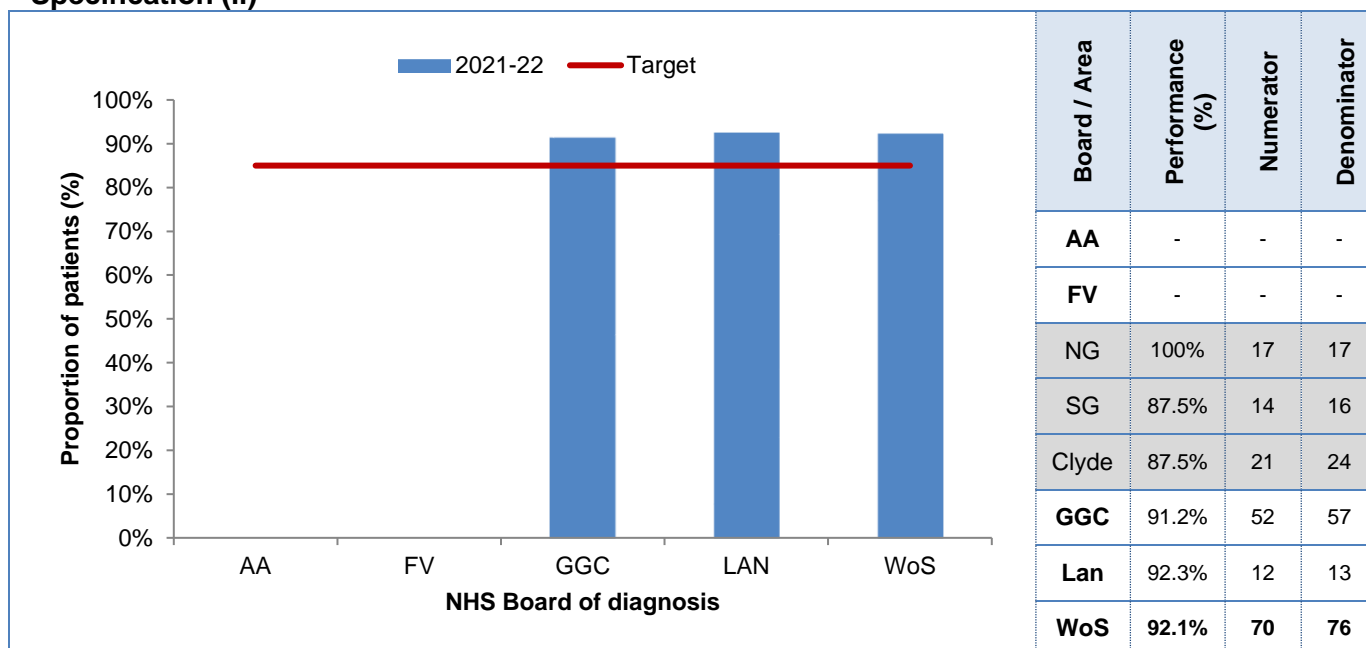
Review of the patients not meeting this QPI in NHS Forth Valley concluded that in both cases patients had considerably more advanced disease at surgery than anticipated from MRI and more radical treatment may have been appropriate. These cases were subsequently discussed with radiology services.

Within Ayrshire & Arran all cases where the surgical margin was not clear of tumour were discussed at MDT and then with the surgeons responsible for the individual surgeries; no concerns with clinical practice were identified in any of these operative cases. The Board will ensure that all potential surgical cases are carefully reviewed by the MDT and close collaboration with the 'beyond TME' surgery team colleagues will continue for any cases where locally advanced disease is anticipated.

Numbers of patients included within this QPI are relatively small and therefore it is difficult to conclude if there are differences in the proportion of patients with clear surgical margins from a single year's data. Review of performance against this QPI in future years will help to identify whether there are differences in outcomes between NHS Boards; for example due to differences in staging of disease and consequent variation in neo-adjuvant treatment.

The MCN undertook an education event in August 2021 focussing on pre operative treatment strategies with the aim of increasing performance against this QPI. This event was part of the way through the reported audit period and it is hoped that by increasing awareness of pre-operative treatment options this QPI will be met across the region in future years.

### Specification (ii)



For QPI 7(ii), all NHS Boards in the WoS met the 85% target with overall regional performance of 92.1%; performance in 2021-22 is not comparable to that for previous years due to changes in the exclusions for this measure.

## QPI 8: Re-operation Rates

It is important to minimise morbidity and mortality related to the treatment of colorectal cancer. Re-operation rates may offer a sensitive and relevant marker of surgical quality.

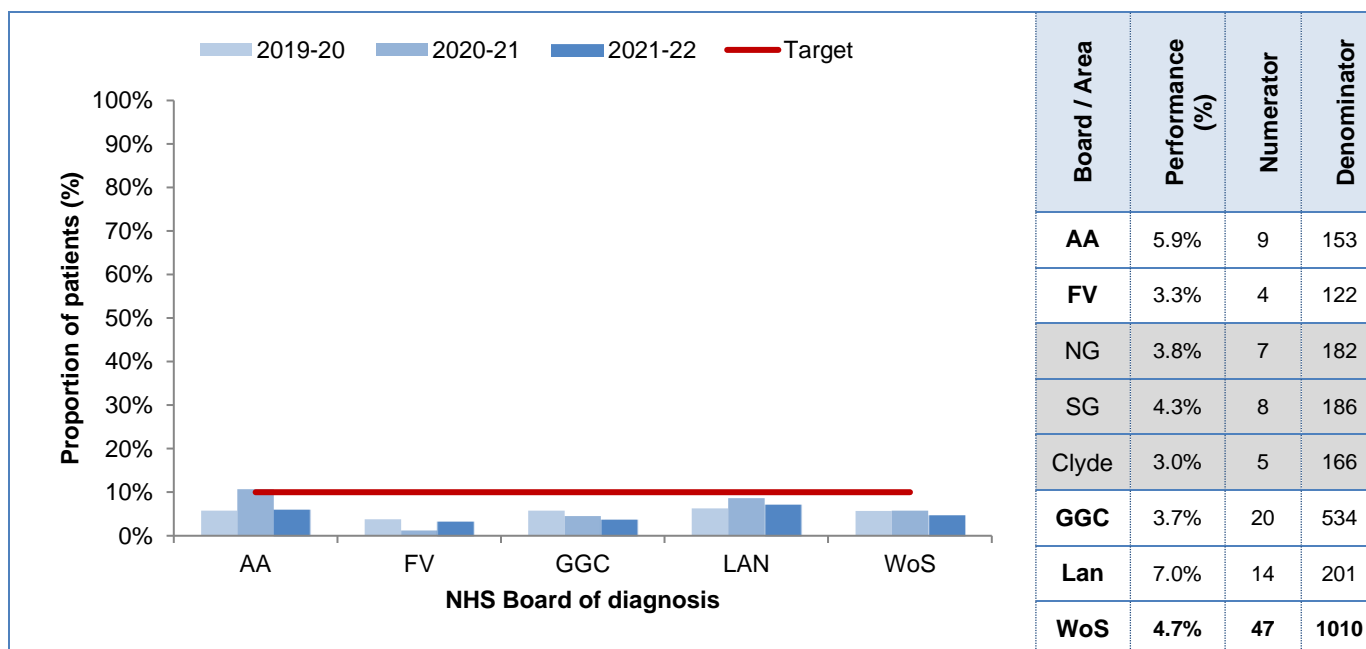
**QPI 8:** For patients undergoing surgery for colorectal cancer re-operation rates should be minimised.

**Numerator:** Number of patients with colorectal cancer who undergo surgical resection who return to theatre following initial 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%

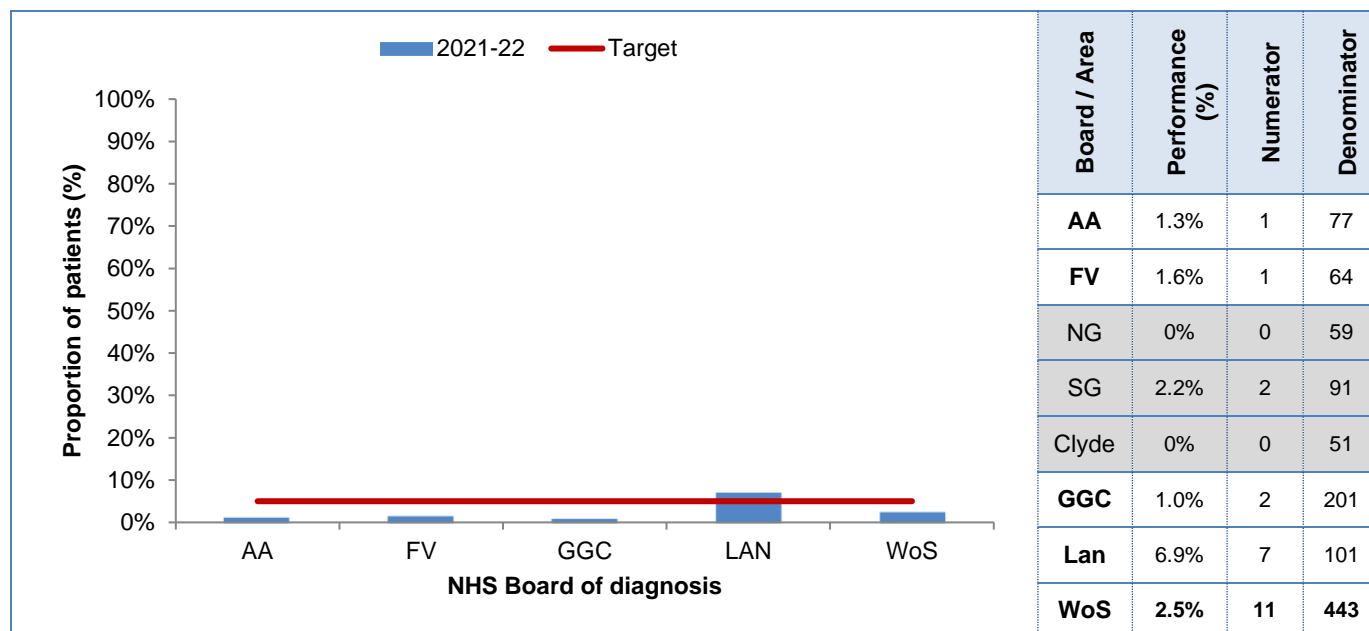


All Boards were within the <10% target with the performance for the WoS region at 4.7%, a slight improvement on performance in previous years.

## QPI 9: Anastomotic Dehiscence

Anastomotic dehiscence is a major cause of morbidity and a measure of the quality of surgical care. Anastomotic leakage is an important and potentially fatal complication of colorectal cancer surgery, and measures to minimise it should be taken.

<b>QPI 9:</b>	For patients who undergo surgical resection for colorectal cancer anastomotic dehiscence should be minimised.
<b>Numerator:</b>	(i) 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). (ii) Number of patients with colorectal cancer who undergo a surgical procedure involving anastomosis of the rectum (including anterior resection with total mesorectal excision (TME)) having anastomotic leak requiring intervention (medical, endoscopic, radiological or surgical).
<b>Denominator:</b>	(i) All patients with colorectal cancer who undergo a surgical procedure involving anastomosis of the colon. (ii) All patients with rectal cancer who undergo a surgical procedure involving anastomosis of the rectum (including anterior resection with TME).
<b>Exclusions:</b>	No exclusions.
<b>Target:</b>	(i) <5% (ii) <10%



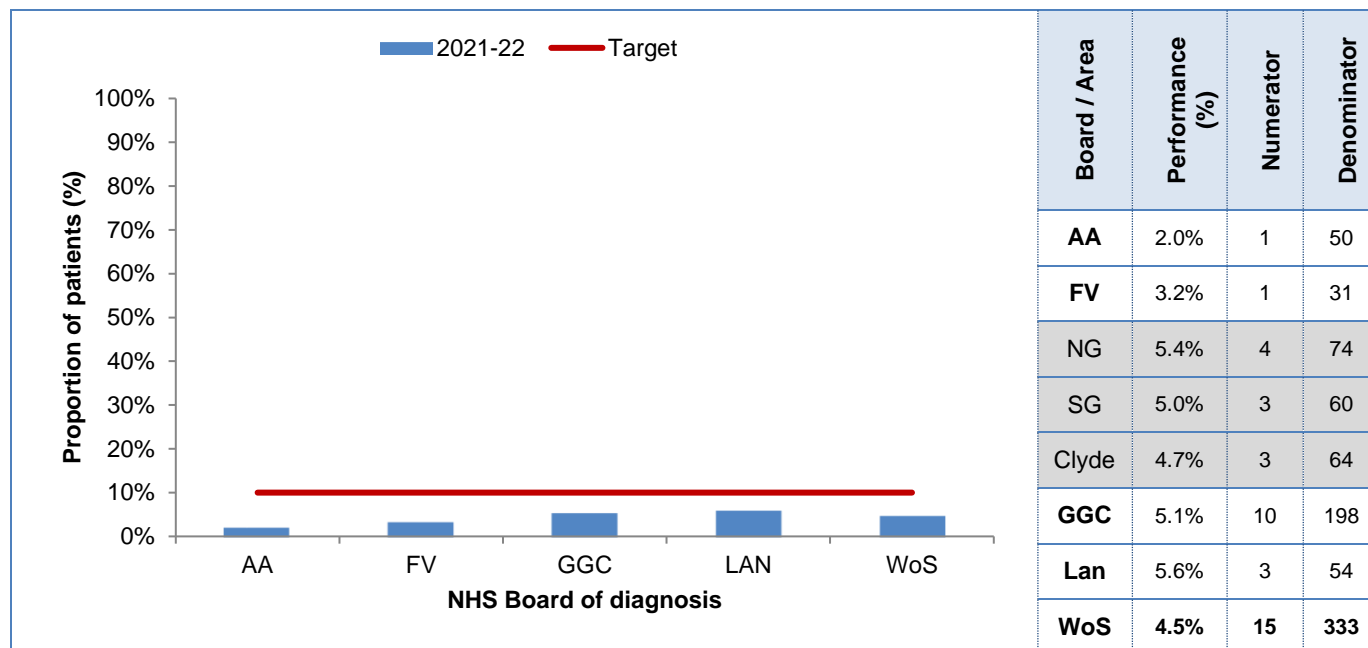
For QPI 9(i), all Boards were within the 5% target with the exception of NHS Lanarkshire with overall performance for the WoS at 2.5% in 2021-22. Performance in 2021-22 is not comparable to that for previous years due to changes in the QPI definition with patients having medical or endoscopic intervention being included within the definition of an anastomotic leak for the first time this year.

Within NHS Lanarkshire all cases failing to meet this QPI have been reviewed. In 6 of the 7 cases the patient returned to theatre and had a stoma formed, the remaining patient required drain insertion and

antibiotics only. It should be noted that a higher performance against this QPI does not necessarily mean poorer outcomes for patients, never-the-less performance against this QPI will be highlighted to consultants at the next MDT education day and these cases will be further reviewed in addition to ongoing review of performance in future years through the quarterly local QPI reporting process within NHS Lanarkshire.

**Action Required:**

- **NHS Lanarkshire to feed back to MCN on the outcome of the MDT review of patients having anastomotic leak requiring intervention following anastomosis of the colon.**



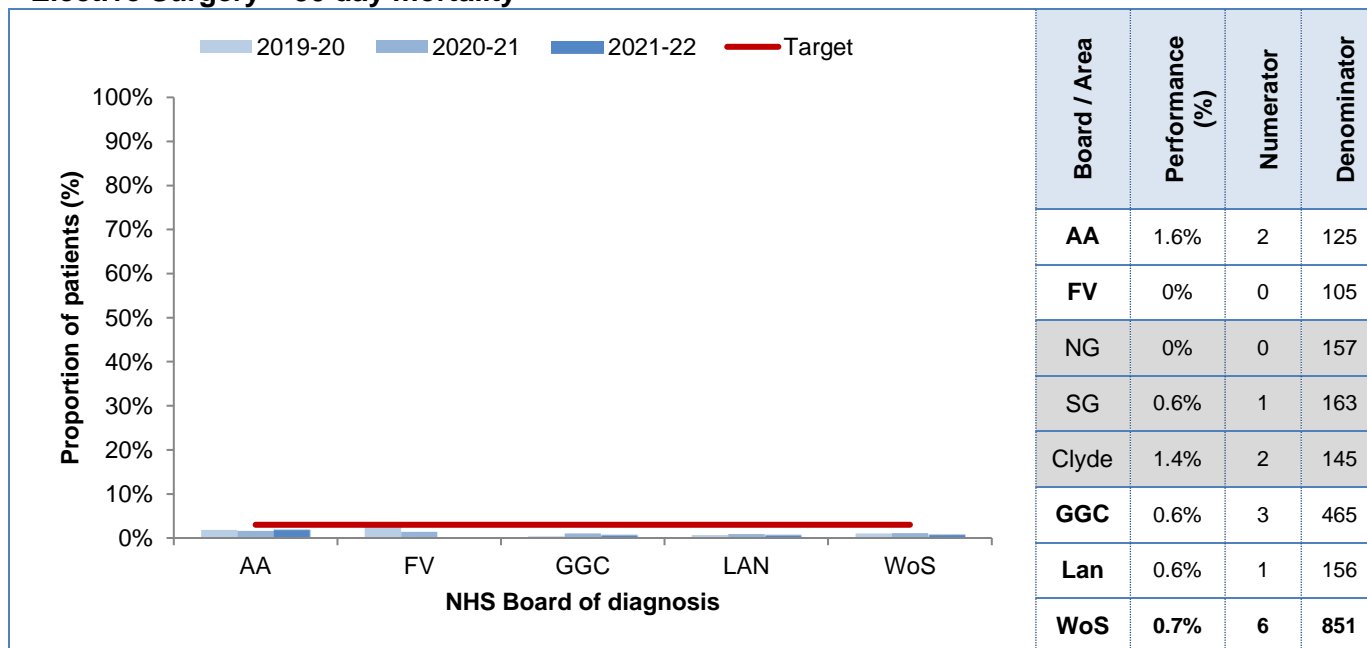
For QPI 9(ii) all Boards were within the 10% target with an overall performance for the WoS of 4.5%, comfortably meeting the target of less than 10%. Performance in 2021-22 is not comparable to that for previous years due to changes in the QPI definition with patients having medical or endoscopic intervention being included within the definition of an anastomotic leak for the first time this year.

## QPI 10: 30 and 90 Day Mortality Following Surgical Resection

Treatment related mortality is a marker of the quality and safety of the whole service provided by the Multi Disciplinary Team (MDT). Outcomes of treatment, including treatment-related morbidity and mortality should be regularly assessed.

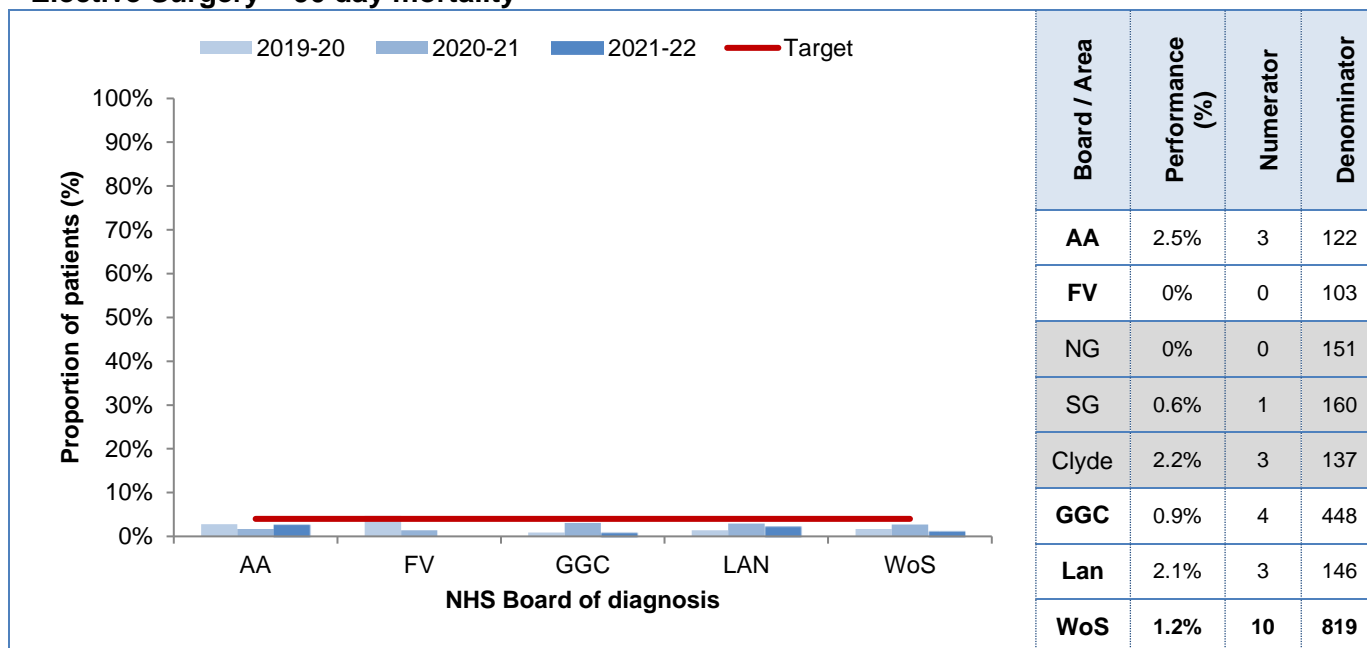
<b>QPI 10:</b>	Mortality after surgical resection for colorectal cancer.		
<b>Numerator:</b>	(i) Number of patients with colorectal cancer who undergo elective surgical resection who die within 30 or 90 days of surgery. (ii) Number of patients with colorectal cancer who undergo emergency surgical resection who die within 30 or 90 days of surgery.		
<b>Denominator:</b>	(i) All patients with colorectal cancer who undergo elective surgical resection. (ii) All patients with colorectal cancer who undergo emergency surgical resection.		
<b>Exclusions:</b>	No exclusions.		
<b>Target:</b>	<b>(i) Elective surgery:</b>	30 day <3%	90 day <4%
	<b>(ii) Emergency surgery:</b>	30 day <15%	90 day <20%

### Elective Surgery – 30 day mortality



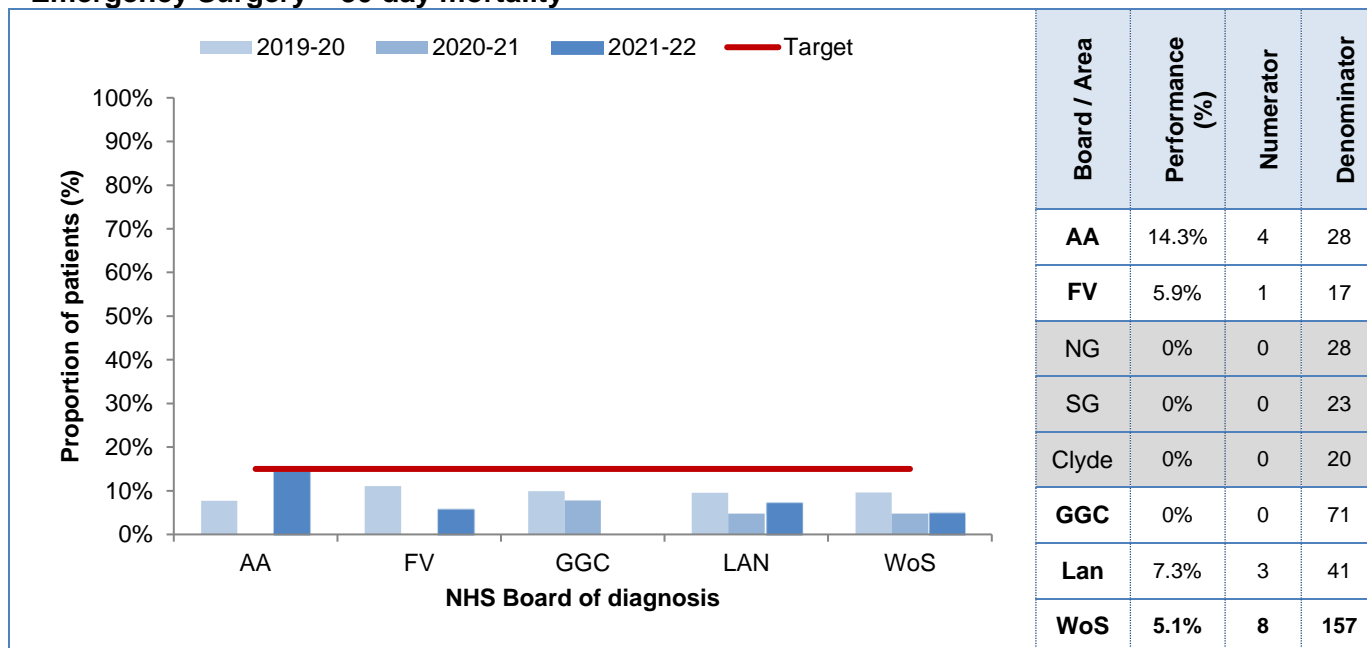


## Elective Surgery – 90 day mortality

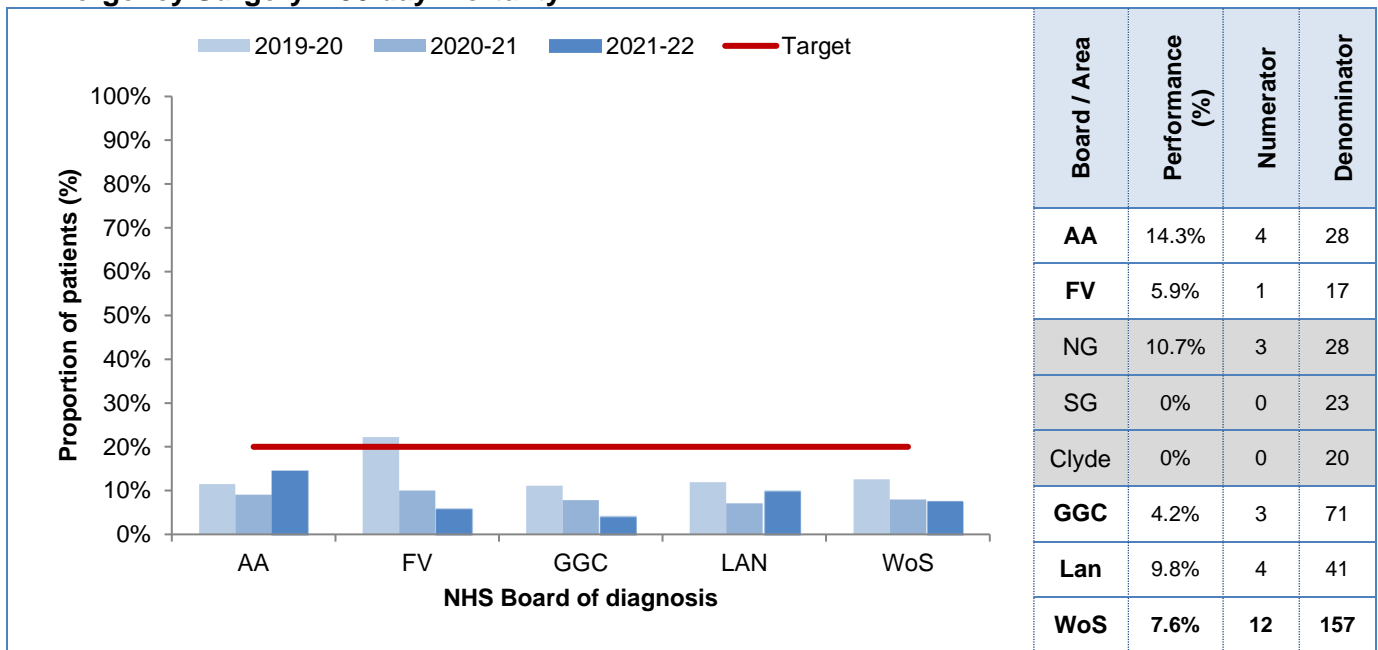


For QPI 10(i), all Boards met the targets for 30 and 90 day mortality. Across the WoS mortality following elective surgery was 0.7% for 30 day mortality and 1.2% for 90 day mortality, meeting the targets at a regional level.

## Emergency Surgery – 30 day mortality



## Emergency Surgery – 90 day mortality

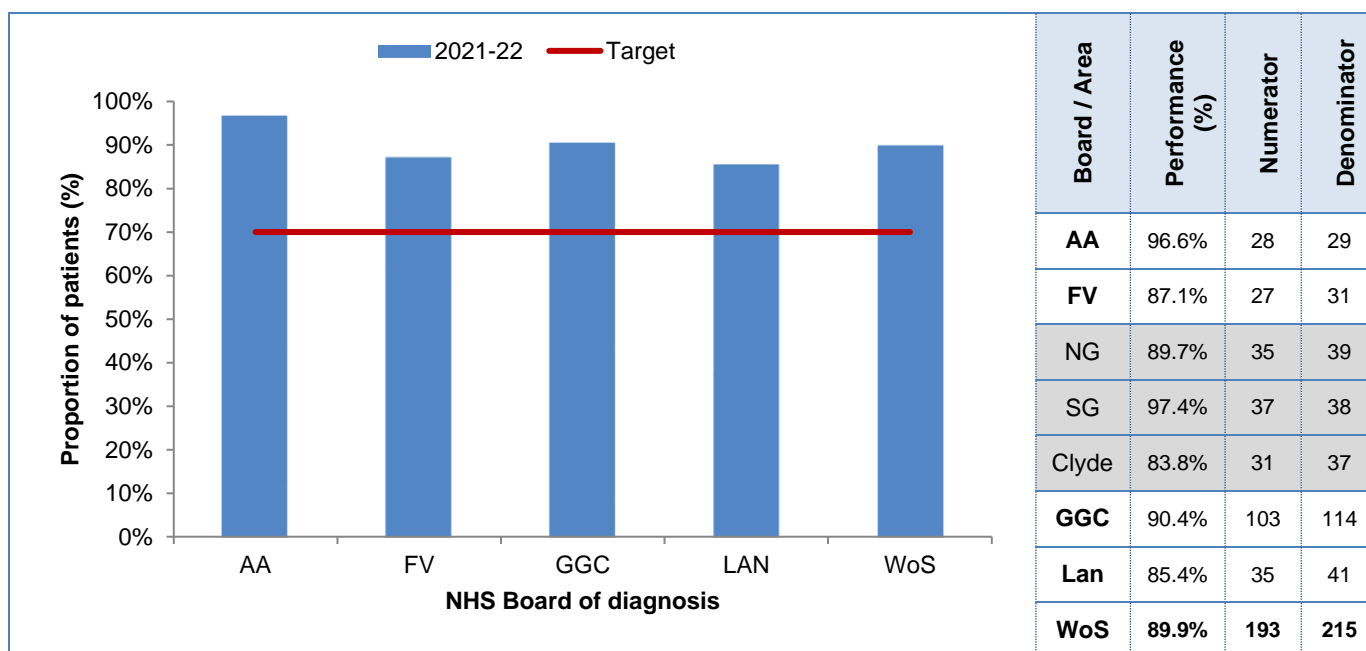


For QPI 10(ii), all Boards met the <15% target for mortality within 30 days of emergency resection and <20% target for mortality within 90 days of emergency resection. Regional results indicate that 30 day mortality was 5.1% and 90 day mortality was 7.6%.

## QPI 11: Adjuvant Chemotherapy

All patients with stage III colorectal cancer should be considered for adjuvant chemotherapy to reduce the risk of local and systemic recurrence. Decisions on adjuvant therapy for patients over 75 years of age should be considered individually on the basis of the balance between potential risks and benefits of treatment.

<b>QPI 11:</b>	Patients with stage III colorectal cancer should be considered for adjuvant chemotherapy.
<b>Numerator:</b>	Number of patients ≤74 years of age at diagnosis with stage III colorectal cancer who undergo surgical resection that receive adjuvant chemotherapy.
<b>Denominator:</b>	All patients ≤74 years of age at diagnosis with stage III colorectal cancer who undergo surgical resection.
<b>Exclusions:</b>	<ul style="list-style-type: none"> <li>• Patients who decline chemotherapy.</li> <li>• Patients who undergo neo-adjuvant treatment.</li> </ul>
<b>Target:</b>	70%



For QPI 11, all Boards met the target of 70% with 89.9% of patients across the WoS included within the QPI definition undergoing adjuvant chemotherapy. Performance in 2021-22 is not comparable to that for previous years due to changes in the QPI definition.

## QPI 12: 30 and 90 Day Mortality Following Radical Radiotherapy

Treatment related mortality is a marker of the quality and safety of the whole service provided by the Multi Disciplinary Team (MDT).

<b>QPI 12:</b>	Mortality after radical radiotherapy for colorectal cancer.
<b>Numerator:</b>	Number of patients with colorectal cancer who undergo neo-adjuvant chemoradiotherapy or radiotherapy with curative intent who die within 30 or 90 days of treatment
<b>Denominator:</b>	All patients with colorectal cancer who undergo neo-adjuvant chemoradiotherapy or radiotherapy with curative intent.
<b>Exclusions:</b>	No exclusions.
<b>Target:</b>	<1%

### Neoadjuvant chemoradiotherapy

Board / Area	30 Day Mortality					90 Day Mortality				
	2021 - 22 Performance	Numerator	Denominator	2020 - 21 Performance	2019 - 20 Performance	2021 - 22 Performance	Numerator	Denominator	2020 - 21 Performance	2019 - 20 Performance
AA	0%	0	8	0%	0%	0%	0	7	0%	0%
FV	0%	0	12	-	0%	0%	0	10	-	0%
NG	0%	0	9	0%	0%	0%	0	8	0%	0%
SG	0%	0	18	0%	0%	0%	0	18	0%	0%
Clyde	0%	0	27	0%	0%	0%	0	24	0%	0%
GGC	0%	0	54	0%	0%	0%	0	50	0%	0%
Lan	0%	0	23	0%	0%	0%	0	21	0%	0%
WoS	<b>0%</b>	<b>0</b>	<b>97</b>	0%	0%	<b>0%</b>	<b>0</b>	<b>88</b>	0%	0%

No patients in the WoS died within 30 or 90 days of receiving neoadjuvant chemoradiotherapy, resulting in a performance of 0%; within the QPI target of less than 1%.

## Radical radiotherapy

Board / Area	30 Day Mortality					90 Day Mortality				
	2021 - 22 Performance	Numerator	Denominator	2020 - 21 Performance	2019 - 20 Performance	2021 - 22 Performance	Numerator	Denominator	2020 - 21 Performance	2019 - 20 Performance
AA	0%	0	13	0%	0%	0%	0	13	0%	14.3%
FV	-	-	-	0%	-	-	-	-	0%	-
NG	0%	0	9	0%	0%	0%	0	9	0%	0%
SG	0%	0	10	0%	0%	0%	0	10	12.5%	0%
Clyde	0%	0	15	0%	0%	0%	0	14	0%	0%
GGC	0%	0	34	0%	0%	0%	0	33	3.8%	0%
Lan	0%	0	13	-	0%	0%	0	12	-	0%
WoS	<b>0%</b>	<b>0</b>	<b>64</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0</b>	<b>61</b>	<b>2.2%</b>	<b>2.1%</b>

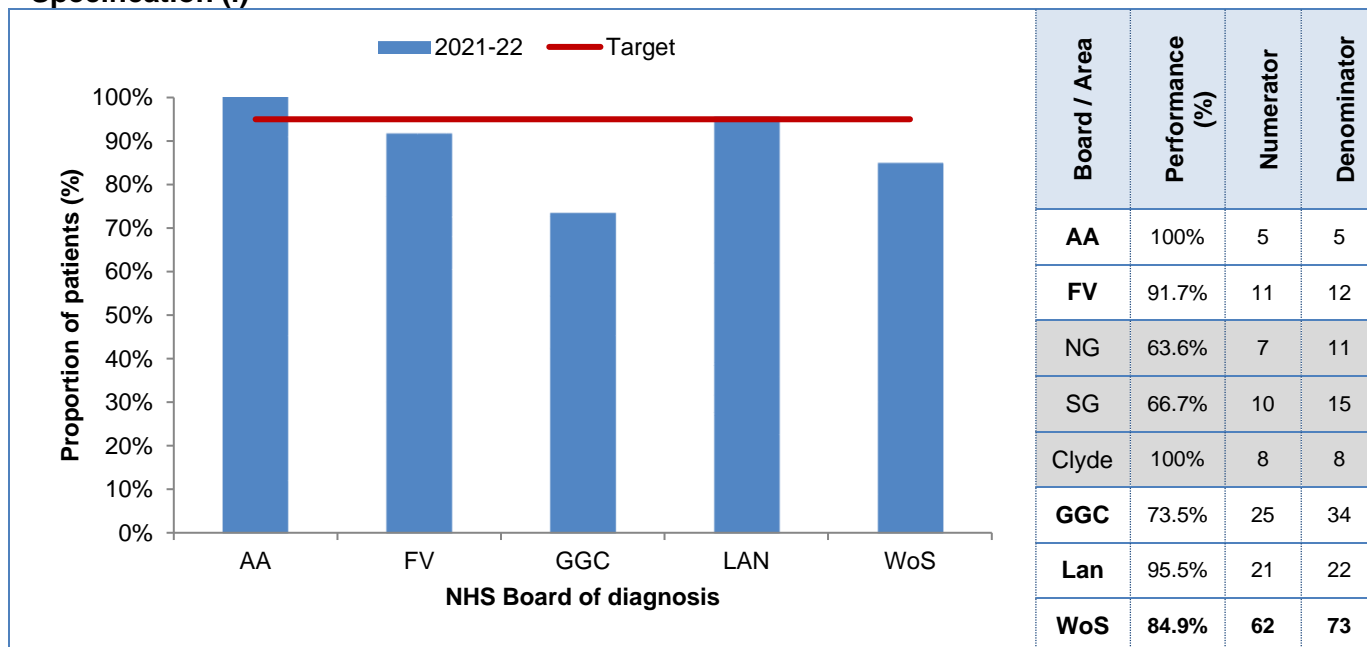
No patients in the WoS died within 30 or 90 days of receiving radiotherapy with curative intent, resulting in a performance of 0% which was within the QPI target of less than 1%.

## QPI 15: Colorectal Liver Metastases

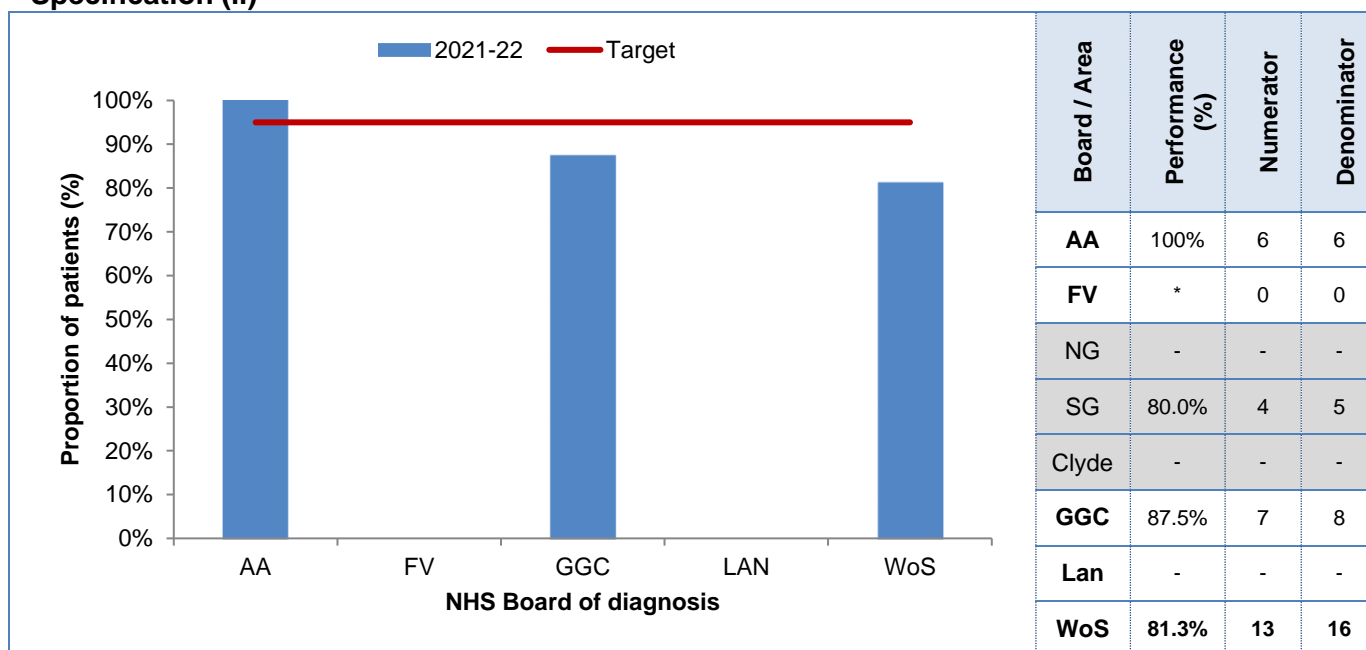
Over 50% of patients with primary colorectal cancer will develop liver metastases. Liver resection has now been widely accepted as the treatment of choice for primary colorectal liver metastases (CRLM), providing the only potential curative treatment with 5-year survival rates of 40-60% reported. Approximately 20% of patients developing primary CRLM will be potential resection candidates. Surgical resection should be considered in patients with metastatic colorectal cancer in the liver following discussion with an MDT with expertise in resection of the involved site i.e. specialist hepatobiliary MDT.

<b>QPI 15:</b>	Patients with a new diagnosis of colorectal liver metastases should be referred to a Hepatobiliary (HPB) multidisciplinary team (MDT) to discuss their management.
<b>Numerator:</b>	(i) Number of patients with a new diagnosis of synchronous colorectal liver metastases who are referred to a HPB MDT. (ii) 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.
<b>Denominator:</b>	(i) All patients with a new diagnosis of synchronous colorectal liver metastases. (ii) All patients registered at a Colorectal Cancer MDT with a new diagnosis of metachronous colorectal liver metastases.
<b>Exclusions:</b>	<ul style="list-style-type: none"> <li>• Patients in whom the primary colorectal cancer is unresectable.</li> <li>• Patients with extrahepatic disease.</li> <li>• Patients who are clinically unfit for surgery.</li> <li>• Patients who decline consideration of surgery.</li> </ul>
<b>Target:</b>	<b>95%</b>

### Specification (i)



## Specification (ii)



QPI 15 is reported for the first time this year and has been a challenging indicator to achieve with only NHS Ayrshire & Arran meeting the 95% target for synchronous and metachronous liver metastases. Neither specification was met at a regional level; 84.9% of patients with synchronous liver metastases and 81.3% of those diagnosed with metachronous liver metastases were referred to an HPB MDT across the region.

Review of patients not meeting the QPI indicated that the vast majority patients had extensive disease or widespread liver metastases and therefore were considered for palliative treatment only and not referred to the HPB MDT. In addition one patient died before the MDT, one patient was considered for referral but had progressive liver disease on repeat imaging and one had a very good response to chemotherapy and is currently on surveillance. North Glasgow noted that a liver surgeon does attend the North Glasgow Colorectal Cancer MDT meetings, which may be the reason for some formal referrals not being made.

Performance against this QPI will be highlighted to the North Glasgow and Lanarkshire MDTs and Boards will endeavour to refer patients to a HPB cancer MDT where appropriate.

Interpretation of the results for this new QPI are difficult in this first year of reporting and will act as a baseline for assessing future changes in performance. Regional discussion of data collection and referral pathways of patients with colorectal liver metastases to HPB MDTs will help to interpret performance against this QPI and identify constraints to the discussion of patients with colorectal liver metastases at MDT. It is likely that this QPI will be challenging to meet across the region without the commitment of further resourcing of the NHSGGC CRC Liver Mets MDT to enable this resource to be available to patients from throughout the region.

### Action Required:

- **MCN to review data collection and referral pathways of patients with colorectal cancer liver metastases to HPB MDTs across WOSCAN Boards to identify any constraints to the discussion of these patients and the potential to expand the role of the NHSGGC Liver Mets MDT to provide a regional function.**

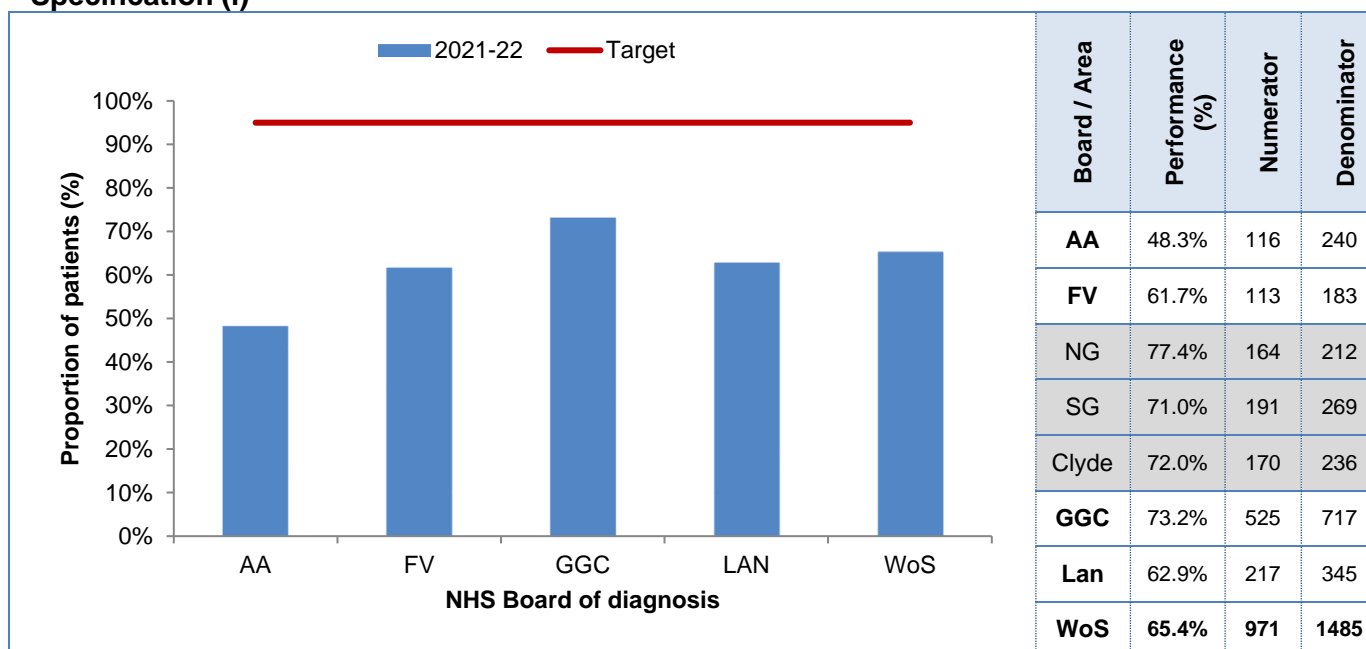
## QPI 16: Assessment of Mismatch Repair (MMR) / Microsatellite Instability (MSI) Status

Microsatellite instability (MSI) is a significant genetic marker in colorectal cancer that can be useful in diagnosis, prognosis, and prediction of Systemic Anti-Cancer Therapy (SACT) treatment efficacy. It can also be used diagnostically for tumour detection and classification.

Molecular testing strategies using Immunohistochemistry (IHC) or Microsatellite instability (MSI) testing is important to detect tumour changes that may indicate Lynch syndrome. Lynch syndrome is associated with a higher risk of certain types of cancer, and given that this is an inherited condition, patients and their families could benefit from genetic testing to determine if this is present in other family members.

<b>QPI 16:</b>	Patients with colorectal cancer should have their tumour Mismatch Repair (MMR) / Microsatellite Instability (MSI) status assessed and be referred to genetics if results are suggestive of Lynch Syndrome.
<b>Numerator:</b>	(i) Number of patients with colorectal cancer who have MMR/MSI status assessed. (ii) Number of patients with colorectal cancer who have MMR/MSI status assessed and where results are suggestive of Lynch Syndrome are referred to genetics.
<b>Denominator:</b>	(i) All patients with colorectal cancer. (ii) All patients with colorectal cancer who have MMR/MSI status assessed where results are suggestive of Lynch Syndrome.
<b>Exclusions:</b>	No exclusions.
<b>Target:</b>	(i) 95% (ii) 90%

### Specification (i)



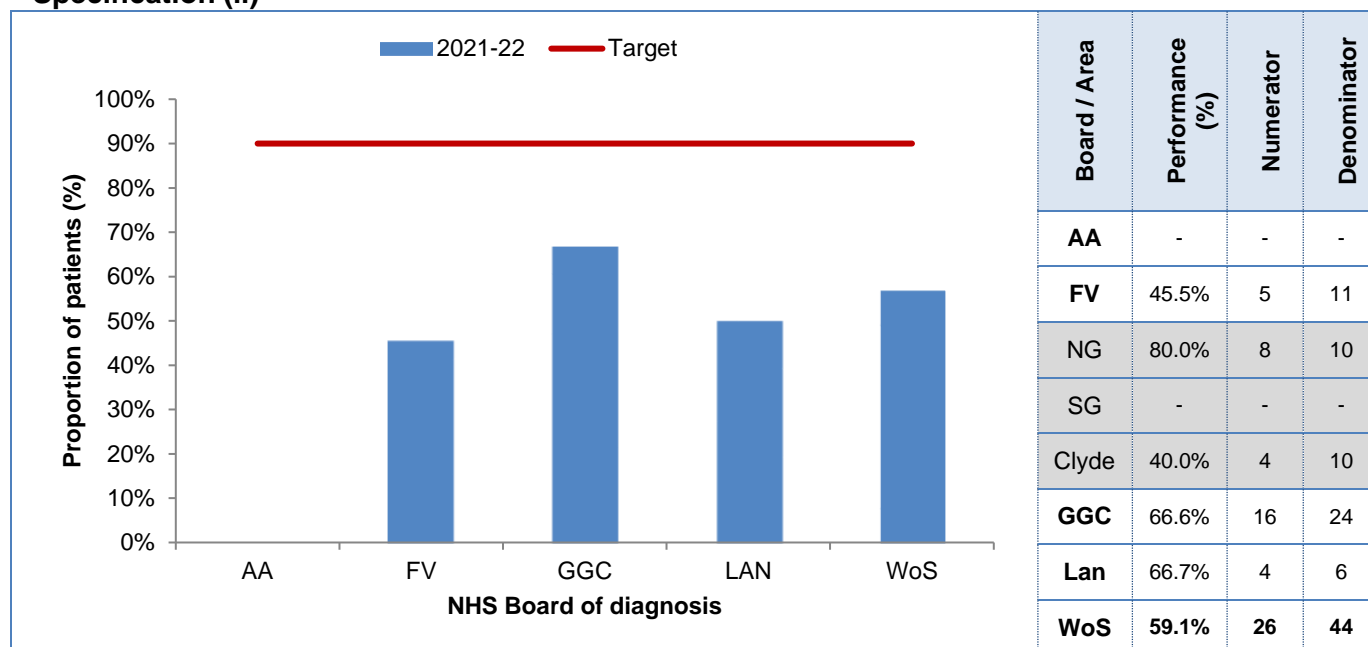
In this first year of reporting of this QPI, 65.4% of colorectal cancer patients diagnosed in the WoS in 2021-22 had their MMR/MSI status assessed, below the target of 95%; no NHS Boards met the target.



MMR/MSI testing was not routinely undertaken for all patients in WoSCAN in 2021 but was rolled out throughout the region in early 2022. The vast majority of patients not meeting this QPI were those that had pathology reported prior to the change to universal testing and it is anticipated that performance against this QPI will improve considerably in the next reporting cycle.

Review of patients not meeting the QPI indicated that there were small numbers of patients not meeting the QPI who had pathology reported after the change to universal testing, some of these had MMR/MSI testing requested but no results were available, some patients did not have a histological diagnosis so there was no material to test and for others there was inadequate tissue to undertake testing. Reporting of the 2022-23 data, following the roll out of universal MMR/MSI testing, will enable any issues with testing or reporting to be more easily identified and addressed.

### Specification (ii)



In this first year of reporting of this QPI 59.1% of colorectal cancer patients who had MMR/MSI results suggestive of Lynch Syndrome were referred to genetics, below the target of 90%; no NHS Boards met the target.

Review of patients not meeting this QPI indicated that the majority of patients had additional genetic tests (MLH1 promoter methylation testing) where results negated the need for genetic referral. The way this QPI is measured will be amended in future years so that these patients will be excluded from the QPI denominator, which will result in a considerable improvement in performance in future years. In addition, it is necessary to ensure that MMR/MSI, BRAF and MLH1 results are appropriately highlighted to the referring clinician to ensure onward referral to genetics.

### Action required:

- **MCN to clarify how molecular pathology results are reported to referring clinicians and inform all NHS Boards of this process, highlighting the need to ensure that patients are transferred on to genetics where appropriate.**

## **5. Next Steps**

The MCN will actively take forward regional actions identified and NHS Boards are asked to develop local Action/Improvement Plans in response to the findings presented in the report. A summary of actions for each NHS Board has been included within the Action Plan templates in Appendix 3.

## Abbreviations

<b>AA</b>	Ayrshire & Arran
<b>ACaDMe</b>	Acute Cancer Deaths and Mental Health
<b>BWoSCC</b>	Beatson West of Scotland Cancer Centre
<b>CNS</b>	Clinical Nurse Specialist
<b>CRM</b>	Circumferential margin
<b>DVT</b>	Deep Venous Thrombosis
<b>DPD</b>	Dihydropyrimidine dehydrogenase
<b>eCASE</b>	Electronic Cancer Audit Support Environment
<b>FV</b>	Forth Valley
<b>GGC</b>	Greater Glasgow and Clyde
<b>GGH</b>	Gartnavel General Hospital
<b>GRI</b>	Glasgow Royal Infirmary
<b>ISD</b>	Information Services Division
<b>LAN</b>	Lanarkshire
<b>M&amp;M</b>	Mortality and Morbidity
<b>MCN</b>	Managed Clinical Network
<b>MDT</b>	Multidisciplinary Team
<b>NG</b>	North Glasgow
<b>NICE</b>	National Institute for Health and Clinical Excellence
<b>QEUH</b>	Queen Elizabeth University Hospital
<b>QPI</b>	Quality Performance Indicator
<b>RCAG</b>	Regional Cancer Advisory Group
<b>SG</b>	South Glasgow
<b>STOB</b>	Stobhill Hospital
<b>TNM</b>	Tumour Node Metastases
<b>VIC</b>	Victoria Infirmary
<b>WIG</b>	Western Infirmary Glasgow
<b>WoS</b>	West of Scotland
<b>WoSCAN</b>	West of Scotland Cancer Network

## References

1. Healthcare Improvement Scotland. Colorectal Cancer Quality Performance Indicators, December 2012 (updated July 2021 v4.0). Available at: [http://www.healthcareimprovementscotland.org/our\\_work/cancer\\_care\\_improvement/cancer\\_qpis/quality\\_performance\\_indicators.aspx](http://www.healthcareimprovementscotland.org/our_work/cancer_care_improvement/cancer_qpis/quality_performance_indicators.aspx)
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## Appendix 1: Meta Data

Report Title	Audit Report: Colorectal Cancer Quality Performance Indicators																								
Time Period	Patients diagnosed between 01 April 2021 to 31 March 2022																								
Data Source	Electronic Cancer Audit Support Environment (eCASE). A secure centralised web-based database which holds cancer audit information in Scotland.																								
Data extraction date	2200 hrs on 5 October 2022																								
Methodology	<p>Analysis was performed centrally for the region by the WoSCAN Information Team. The timescales agreed took into account the patient pathway to ensure that a complete treatment record was available for the majority of patients.</p> <p>Initial results were provided to Boards to check for inaccuracies, inconsistencies or obvious gaps and a subsequent download taken upon which final analysis was carried out.</p> <p>The final data analysis was disseminated for NHS Board verification in line with the regional audit governance process to ensure that the data was an accurate representation of service in each area. Please see info graphic in appendix 2 for a more detailed look at the reporting process.</p>																								
Data Quality	<p>Audit data completeness can be assessed by estimating the proportion of expected patients that have been identified through audit compared to the number reported by the National Cancer registry (provided by ISD, National Services Division), this is known as case ascertainment. Figures should only be used as a guide as it is not possible to compare the same exact cohort from each data source. Note that a 5 year average is taken for cancer registry cases to take account of annual fluctuations in incidence within NHS Boards.</p> <table border="1" data-bbox="415 1283 1334 1587"> <thead> <tr> <th>Health Board of diagnosis</th> <th>2021-22 Audit Data</th> <th>Cases from Cancer registry (2016-2020)</th> <th>Case Ascertainment</th> </tr> </thead> <tbody> <tr> <td>Ayrshire &amp; Arran</td> <td>263</td> <td>258</td> <td>101.9%</td> </tr> <tr> <td>FV</td> <td>232</td> <td>197</td> <td>117.8%</td> </tr> <tr> <td>GGC</td> <td>800</td> <td>831</td> <td>96.3%</td> </tr> <tr> <td>Lanarkshire</td> <td>393</td> <td>349</td> <td>112.6%</td> </tr> <tr> <td><b>WoS Total</b></td> <td><b>1688</b></td> <td><b>1635</b></td> <td><b>103.2%</b></td> </tr> </tbody> </table>	Health Board of diagnosis	2021-22 Audit Data	Cases from Cancer registry (2016-2020)	Case Ascertainment	Ayrshire & Arran	263	258	101.9%	FV	232	197	117.8%	GGC	800	831	96.3%	Lanarkshire	393	349	112.6%	<b>WoS Total</b>	<b>1688</b>	<b>1635</b>	<b>103.2%</b>
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## Appendix 2: WoSCAN QPI Reporting Process



## Appendix 3: NHS Board Action Plans

A summary of actions for each NHS Board has been included within the respective Action Plan templates below. Completed Action Plans should be returned to WoSCAN within two months of publication of this report.

### Action / Improvement Plan

<b>NHS Board:</b>	NHS Lanarkshire
<b>Action Plan Lead:</b>	
<b>Date:</b>	

<b>KEY (Status)</b>	
<b>1</b>	Action fully implemented
<b>2</b>	Action agreed but not yet implemented
<b>3</b>	No action taken (please state reason)

<b>No</b>	<b>Action Required</b>	<b>NHS Board Action Taken</b>	<b>Timescales</b>		<b>Lead</b>	<b>Progress/Action Status</b>	<b>Status (see key)</b>
			<b>Start</b>	<b>End</b>			
	<i>Ensure actions mirror those detailed in Audit Report.</i>	<i>Detail specific actions that will be taken by the NHS Board.</i>	<i>Insert date</i>	<i>Insert date</i>	<i>Insert name of responsible lead for each action.</i>	<i>Provide detail of action in progress, change in practices, problems encountered or reasons why no action taken.</i>	<i>Insert No. from key above</i>
9i	NHS Lanarkshire to feed back to MCN on the outcome of the MDT review of patients having anastomotic leak requiring intervention following anastomosis of the colon.						



## Action / Improvement Plan

<b>NHS Board:</b>	Colorectal Cancer MCN
<b>Action Plan Lead:</b>	
<b>Date:</b>	

KEY (Status)	
1	Action fully implemented
2	Action agreed but not yet implemented
3	No action taken (please state reason)

No	Action Required	NHS Board Action Taken	Timescales		Lead	Progress/Action Status	Status (see key)
			Start	End			
	<i>Ensure actions mirror those detailed in Audit Report.</i>	<i>Detail specific actions that will be taken by the NHS Board.</i>	<i>Insert date</i>	<i>Insert date</i>	<i>Insert name of responsible lead for each action.</i>	<i>Provide detail of action in progress, change in practices, problems encountered or reasons why no action taken.</i>	<i>Insert No. from key above</i>
15	MCN to review data collection and referral pathways of patients with colorectal cancer liver metastases to HPB MDTs across WOSCAN Boards to identify any constraints to the discussion of these patients and the potential to expand the role of the NHSGGC Liver Mets MDT to provide a regional function.						
16	MCN to clarify how molecular pathology results are reported to referring clinicians and inform all NHS Boards of this process, highlighting the need to ensure that patients are transferred on to genetics where appropriate.						