**West of Scotland Cancer Network**

**Colorectal Cancer**
**Managed Clinical Network**


# Audit Report

## Colorectal Cancer Quality Performance Indicators

## Clinical Audit Data:
## 1st April 2023 and 31st March 2024

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# Colorectal Cancer Quality Performance Indicators: Data Overview

Patients diagnosed April 2023 - March 2024

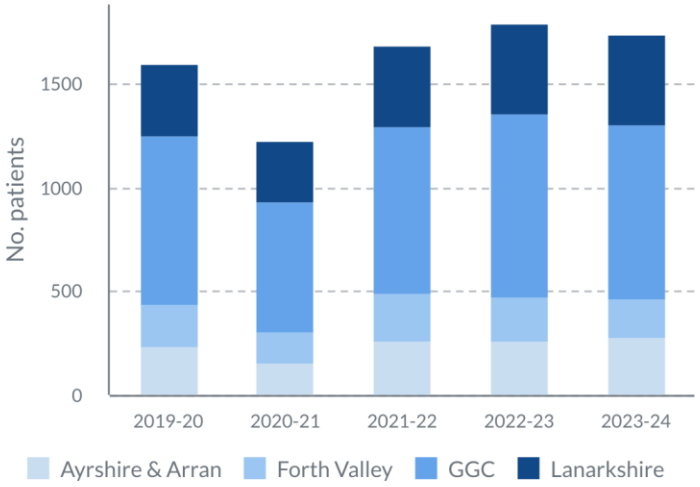
| | |
|---|---|
| Number of patients | 1740 |
| Median age of patients | 70 |

Age Standardised Net Survival*

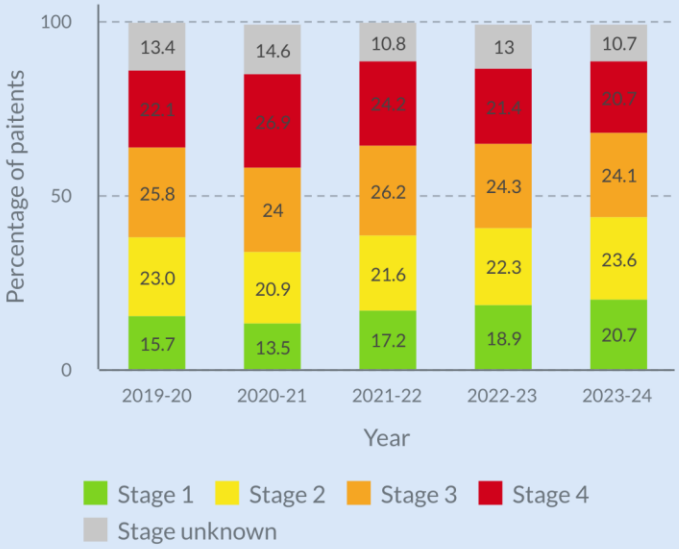
| | 1995-99 | 2005-09 | 2015-19 |
|---|---|---|---|
| 1 Year | 73% | 77% | 78% |
| 5 Year | 52% | 58% | 60% |

* Presented by year of diagnosis
www.publichealthscotland.scot/publications/cancer-survival-statistics/

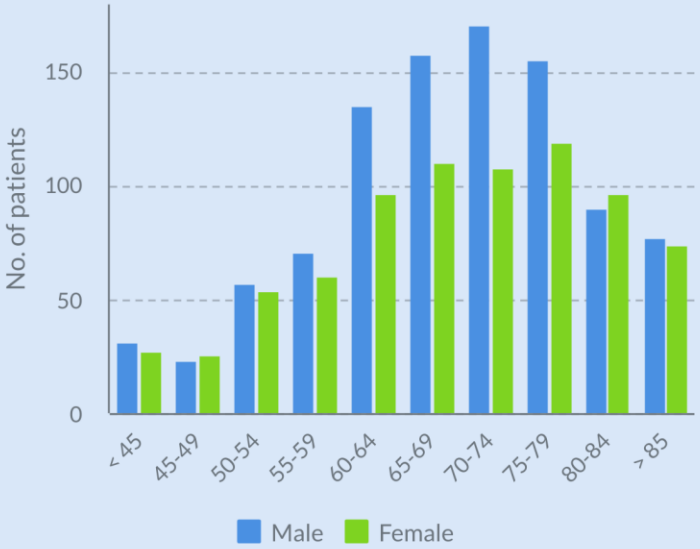
## Where are patients diagnosed



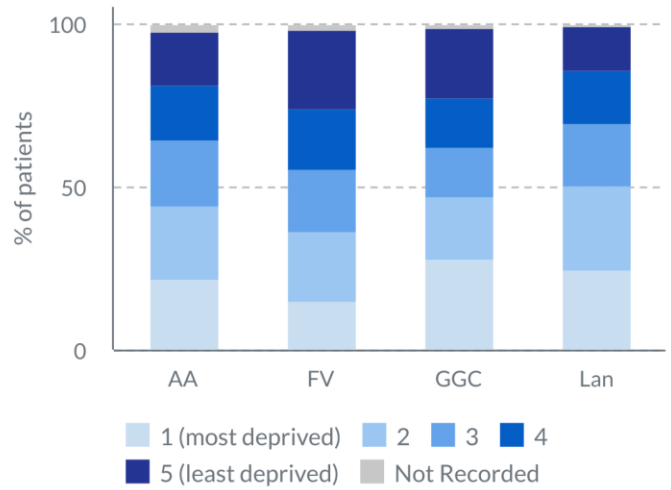

## Stage at Presentation



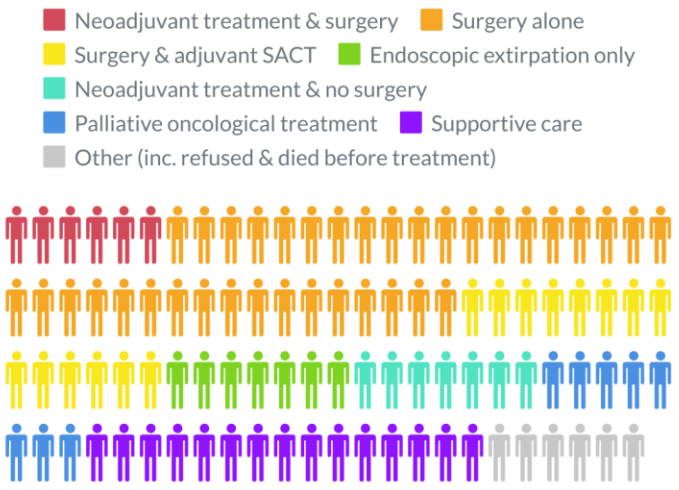

## Age of patients




## Deprivation Index of Patients




## Treatment



# Executive Summary

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 1st April 2023 and 31st March 2024.

Cancer audit has underpinned much of the regional development and service improvement work of the MCN and the regular reporting of activity and performance have been fundamental in assuring the quality of care delivered across the region. With the development of QPIs, this has now become a national programme to drive continuous improvement and ensure equity of care for patients across Scotland.

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. Note that QPI measures that have been met by all NHS Boards are included in the summary results table but not within the body of the report.

Two new QPIs were reported for the third time; these have been challenging to meet however improvements in service can been seen since the introduction of the measures. The proportion of patients with synchronous or metachronous colorectal liver metastases that are referred to the HPB MDT has increased (QPI 15); however, all NHS Boards need to ensure that all patients with colorectal liver metastases not meeting the specific exclusions of QPI 15 are referred to enable the HPB MDT to make decisions on the treatment of the liver metastases. NHSGGC have a CRC Liver Mets MDT and are keen to expand this service to other NHS Boards within the region, although there are resourcing constraints.

QPI 16 focusses on MMR/MSI testing of patients and referral to genetics. MMR/MSI testing was not routinely undertaken for all patients in WoSCAN in 2021 but was rolled out throughout the region in early 2022, explaining the considerable improvement in this second year of reporting for QPI 16(i). The target being met at a regional level for the first time in 2023-24 with further improvements anticipated in future years. Performance against QPI 16(ii) did not improve and results highlighted the need for regional coordination to ensure that results of MMR/MSI testing that are suggestive of Lynch Syndrome are effectively communicated to clinicians to enable timely referral Genetics Services.

**Actions Required:**

- **South Glasgow sector of NHSGGC to review surgical margins of patients with rectal cancer undergoing surgical resection, discuss at the MCN rectal cancer workshop in February 2025 and progress any actions identified as a result of review.**

- **MCN to instigate work to identify a common definition for rectal cancer through regional and Formal Review discussions.**

- **NHS Lanarkshire to actively review outcomes of robotic-assisted rectal cancer resection and address any areas for improvement identified.**

- **NHS Lanarkshire to present information on the progress on the development of the rectal cancer pathway within the Board at the MCN rectal cancer workshop in February 2024.**

- **NHS Boards to ensure that all patients with colorectal liver metastases not meeting the specific exclusions of QPI 15 are referred to an HPB MDT to enable HPB clinicians to make decisions on whether the patients liver metastases can be treated**.

- **MCN to work with all NHS Boards to review any patients where MMR/MSI results are suggestive of Lynch Syndrome but have not yet been referred to Genetics Services and consider referral.**

- **MCN to work with molecular pathology services and clinical genetics services to agree a process for communicating results to clinicians when they are suggestive of Lynch Syndrome to ensure prompt referral to genetics services where appropriate.**

A summary of actions has been included within the Action Plan accompanying this report and templates have been provided to Boards. **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.**

**WoSCAN Colorectal Cancer Performance Summary Report**

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

| QPI | Target | Year | AA | FV | NG | SG | Clyde | GGC | Lan | WoS |
|---|---|---|---|---|---|---|---|---|---|---|
| **QPI 1(i):** Proportion of patients with colon cancer who undergo CT chest, abdomen and pelvis before definitive treatment. | **95%** | 2023-24 | 98% (119/121) | 99% (68/69) | 100% (73/73) | 97% (150/154) | 99% (125/126) | 99% (348/353) | 99% (188/190) | 99% (723/733) |
| | | 2022-23 | 99% | 99% | 100% | 100% | 100% | 100% | 100% | 100% |
| | | 2021-22 | | | | | | | | |
| **QPI 1(ii):** Proportion of patients with rectal cancer who undergo CT chest, abdomen and pelvis and MRI pelvis before definitive treatment. | **95%** | 2023-24 | 100% (34/34) | 100% (37/37) | 97% (38/39) | 98% (45/46) | 100% (43/43) | 98% (126/128) | 100% (57/57) | 99% (254/256) |
| | | 2022-23 | 100% | 100% | 98% | 84% | 100% | 93% | 100% | 96% |
| | | 2021-22 | 96% | 100% | 90% | 93% | 98% | 94% | 98% | 96% |
| **QPI 2:** 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%** | 2023-24 | 90% (101/112) | 88% (75/85) | 85% (86/101) | 87% (146/167) | 84% (119/142) | 86% (351/410) | 85% (151/177) | 86% (678/784) |
| | | 2022-23 | 88% | 90% | 87% | 88% | 86% | 87% | 85% | 87% |
| | | 2021-22 | 90% | 89% | 87% | 85% | 77% | 83% | 88% | 86% |
| † **QPI 5:** Proportion of patients with colorectal cancer who undergo surgical resection where ≥ 12 lymph nodes are pathologically examined. | **90%** | 2023-24 | 95% (125/132) | 96% (85/89) | 93% (112/121) | 91% (170/187) | 92% (153/167) | 92% (435/475) | 93% (183/196) | 93% (828/892) |
| | | 2022-23 | 99% | 87% | 91% | 92% | 93% | 92% | 87% | 92% |
| | | 2021-22 | 96% | 96% | 89% | 91% | 88% | 90% | 96% | 93% |
| † **QPI 7(i):** 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%** | 2023-24 | 96% (27/28) | 95% (18/19) | 96% (26/27) | 95% (19/20) | 100% (18/18) | 97% (63/65) | 95% (19/20) | 96% (127/132) |
| | | 2022-23 | 96% | 100% | 100% | 97% | 96% | 98% | 100% | 98% |
| | | 2021-22 | 81% | 87% | 95% | 100% | 100% | 98% | 95% | 94% |

| 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%** | 2023-24 | - | 100% (7/7) | 92% (22/24) | 67% (8/12) | 96% (22/23) | 88% (52/59) | 88% (14/16) | 90% (77/86) |
| | | 2022-23 | 100% | - | 92% | 87% | 100% | 92% | 92% | 93% |
| | | 2021-22 | - | - | 100% | 88% | 88% | 91% | 92% | 92% |
| † **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%** | 2023-24 | 5% (7/143) | 1% (1/99) | 4% (5/141) | 1% (3/201) | 6% (12/196) | 4% (20/538) | 7% (14/215) | 4% (42/995) |
| | | 2022-23 | 7% | 5% | 3% | 5% | 4% | 4% | 5% | 5% |
| | | 2021-22 | 6% | 3% | 4% | 4% | 3% | 4% | 7% | 5% |
| † **QPI 9(i):** Proportion of patients who undergo colonic anastomosis with anastomotic leak as a post-operative complication. | **< 5%** | 2023-24 | 3% (2/65) | 3% (1/40) | 2% (1/50) | 0% (0/92) | 3% (3/99) | 2% (4/241) | 5% (6/112) | 3% (13/458) |
| | | 2022-23 | 6% | 6% | 0% | 5% | 1% | 3% | 2% | 3% |
| | | 2021-22 | 1% | 2% | 0% | 2% | 0% | 1% | 7% | 2% |
| † **QPI 9(ii):** Proportion of patients who undergo rectal anastomosis with anastomotic leak as a post-operative complication. | **< 10%** | 2023-24 | 5% (3/57) | 3% (1/39) | 4% (2/56) | 3% (2/67) | 3% (2/66) | 3% (6/189) | 14% (9/64) | 5% (19/349) |
| | | 2022-23 | 9% | 3% | 3% | 3% | 3% | 3% | 8% | 5% |
| | | 2021-22 | 2% | 3% | 5% | 5% | 5% | 5% | 6% | 5% |
| † **QPI 10(i):** Proportion of patients with colorectal cancer who die within 30 days of elective surgical resection. | **< 3%** | 2023-24 | 1% (1/125) | 0% (0/89) | 0% (0/123) | 1% (1/177) | 2% (3/167) | 1% (4/467) | 1% (1/185) | 1% (6/866) |
| | | 2022-23 | 2% | 1% | 0% | 1% | 1% | 1% | 1% | 1% |
| | | 2021-22 | 2% | 0% | 0% | 1% | 1% | 1% | 1% | 1% |
| † **QPI 10(i):** Proportion of patients with colorectal cancer who die within 90 days of elective surgical resection. | **< 4%** | 2023-24 | 1% (1/124) | 0% (0/86) | 1% (1/118) | 1% (2/169) | 2% (4/163) | 2% (7/450) | 1% (1/177) | 1% (9/837) |
| | | 2022-23 | 3% | 1% | 0% | 1% | 2% | 1% | 1% | 1% |
| | | 2021-22 | 2% | 0% | 0% | 1% | 2% | 1% | 2% | 1% |

| 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%** | 2023-24 | 0% (0/17) | 10% (1/10) | 11% (2/18) | 0% (0/23) | 3% (1/29) | 4% (3/70) | 0% (0/28) | 3% (4/125) |
| | | 2022-23 | 17% | 25% | 11% | 6% | 7% | 8% | 3% | 9% |
| | | 2021-22 | 14% | 6% | 0% | 0% | 0% | 0% | 7% | 5% |
| † **QPI 10(ii):** Proportion of patients with colorectal cancer who die within 90 days of emergency surgical resection. | **< 20%** | 2023-24 | 6% (1/16) | 20% (2/10) | 22% (4/18) | 9% (2/23) | 21% (6/29) | 17% (12/70) | 4% (1/28) | 13% (16/124) |
| | | 2022-23 | 21% | 25% | 11% | 6% | 14% | 10% | 3% | 11% |
| | | 2021-22 | 14% | 6% | 11% | 0% | 0% | 4% | 10% | 8% |
| **QPI 11:** Proportion of patients who are ≤ 74 years of age at diagnosis with stage III colorectal cancer that receive adjuvant chemotherapy. | **70%** | 2023-24 | 86% (25/29) | 100% (20/20) | 86% (19/22) | 87% (27/31) | 71% (25/35) | 81% (71/88) | 82% (36/44) | 84% (152/181) |
| | | 2022-23 | 84% | 90% | 76% | 93% | 76% | 82% | 78% | 82% |
| | | 2021-22 | 97% | 87% | 90% | 97% | 84% | 90% | 85% | 90% |
| ***QPI 12(i):** Proportion of patients with colorectal cancer who die within 30 days of **neoadjuvant chemoradiotherapy** treatment with curative intent. | **< 1%** | 2023-24 | - | 0% (0/10) | 0% (0/8) | 0% (0/22) | 0% (0/20) | 0% (0/50) | 0% (0/31) | 0% (0/94) |
| | | 2022-23 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | 2021-22 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| ***QPI 12(ii):** Proportion of patients with colorectal cancer who die within 90 days of **neoadjuvant chemoradiotherapy** treatment with curative intent. | **< 1%** | 2023-24 | - | 0% (0/10) | 0% (0/8) | 0% (0/22) | 0% (0/20) | 0% (0/50) | 0% (0/29) | 0% (0/92) |
| | | 2022-23 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | 2021-22 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| ***QPI 12(i):** Proportion of patients with colorectal cancer who die within 30 days of **radiotherapy** treatment with curative intent. | **< 1%** | 2023-24 | 0% (0/9) | 0% (0/9) | 0% (0/14) | 0% (0/14) | 0% (0/13) | 0% (0/41) | 6% (1/17) | 1% (1/76) |
| | | 2022-23 | 0% | - | 6% | 0% | 0% | 2% | 0% | 1% |
| | | 2021-22 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

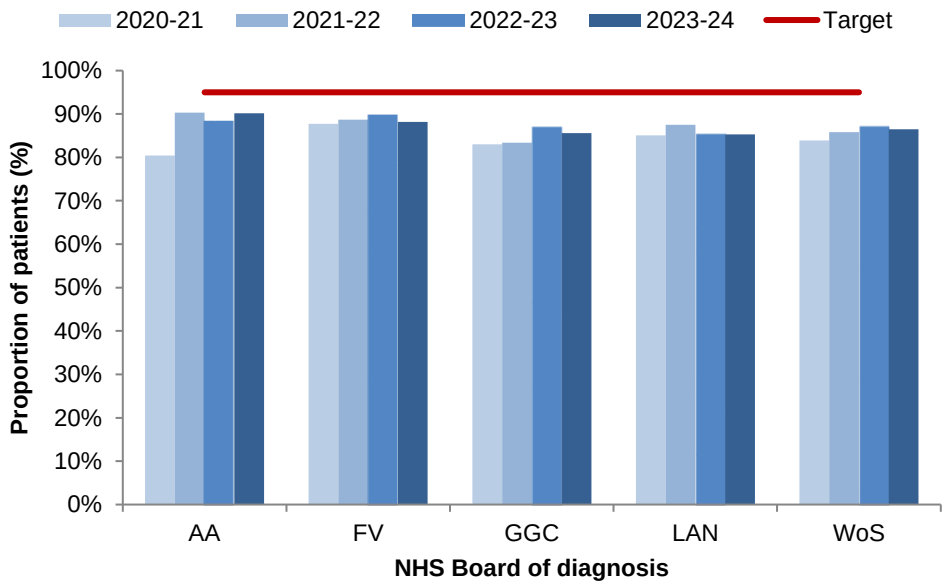
| QPI | Target | Year | AA | FV | NG | SG | Clyde | GGC | Lan | WoS |
|---|---|---|---|---|---|---|---|---|---|---|
| ***QPI 12(ii):** Proportion of patients with colorectal cancer who die within 90 days of **radiotherapy** treatment with curative intent. | **< 1%** | 2023-24 | 0% (0/9) | 0% (0/9) | 0% (0/14) | 7% (1/14) | 0% (0/13) | 2% (1/41) | 7% (1/15) | 3% (2/74) |
| | | 2022-23 | 0% | - | 6% | 0% | 8% | 3% | 0% | 2% |
| | | 2021-22 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **QPI 15(i):** Proportion of patients with a new diagnosis of **synchronous** colorectal liver metastases who are referred to a HPB MDT to discuss their management. | **95%** | 2023-24 | - | 71% (5/7) | 100% (11/11) | 100% (24/24) | 67% (6/9) | 93% (41/44) | 94% (17/18) | 92% (67/73) |
| | | 2022-23 | 100% | 100% | 100% | 75% | 100% | 91% | 100% | 95% |
| | | 2021-22 | 100% | 92% | 64% | 67% | 100% | 74% | 95% | 85% |
| **QPI 15(ii):** Proportion of patients with a new diagnosis of **metachronous** colorectal liver metastases who are referred to a HPB MDT to discuss their management. | **95%** | 2023-24 | - | - | - | 83% (5/6) | 88% (7/8) | 88% (14/16) | 100% (8/8) | 90% (27/30) |
| | | 2022-23 | - | - | 80% | 100% | - | 93% | 89% | 93% |
| | | 2021-22 | 100% | - | - | 80% | - | 88% | - | 81% |
| **QPI 16(i):** Proportion of patients with colorectal cancer who have MMR/MSI status assessed. | **95%** | 2023-24 | 94% (231/246) | 96% (156/163) | 98% (184/187) | 98% (317/324) | 99% (240/242) | 98% (741/753) | 94% (364/388) | 96% (1492/1550) |
| | | 2022-23 | 86% | 92% | 96% | 94% | 96% | 95% | 99% | 94% |
| | | 2021-22 | 48% | 62% | 77% | 71% | 72% | 73% | 63% | 65% |
| **QPI 16(ii):** Proportion of patients with results suggestive of Lynch Syndrome who are referred to genetics | **90%** | 2023-24 | 67% (6/9) | - | - | 67% (6/9) | 30% (3/10) | 50% (11/22) | - | 57% (21/37) |
| | | 2022-23 | 50% | 20% | 67% | 100% | - | 80% | 50% | 59% |
| | | 2021-22 | - | 45% | 80% | - | 40% | 67% | 67% | 59% |

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

**Small numbers in some Boards - percentage comparisons over a single year should be viewed with caution.*

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

| | |
|---|---|
| **QPI 2:** | Patients with colorectal cancer undergoing elective surgical resection should have the whole colon visualised pre-operatively |
| **Numerator:** | Number of patients who undergo elective surgical resection for colorectal cancer who have the whole colon visualised by colonoscopy or CT colonography before surgery, unless the non visualised segment of the colon is to be removed. |
| **Denominator:** | All patients who undergo elective surgical resection for colorectal cancer. |
| **Exclusions:** | Patients who undergo palliative surgery.<br>Patients who have incomplete bowel imaging due to obstructing tumour |
| **Target:** | 95% |




| Board / Area | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| **AA** | 90.2% | 101 | 112 |
| **FV** | 88.2% | 75 | 85 |
| NG | 85.1% | 86 | 101 |
| SG | 87.4% | 146 | 167 |
| Clyde | 83.8% | 119 | 142 |
| **GGC** | 85.6% | 351 | 410 |
| **Lan** | 85.3% | 151 | 177 |
| **WoS** | **86.5%** | **678** | **784** |

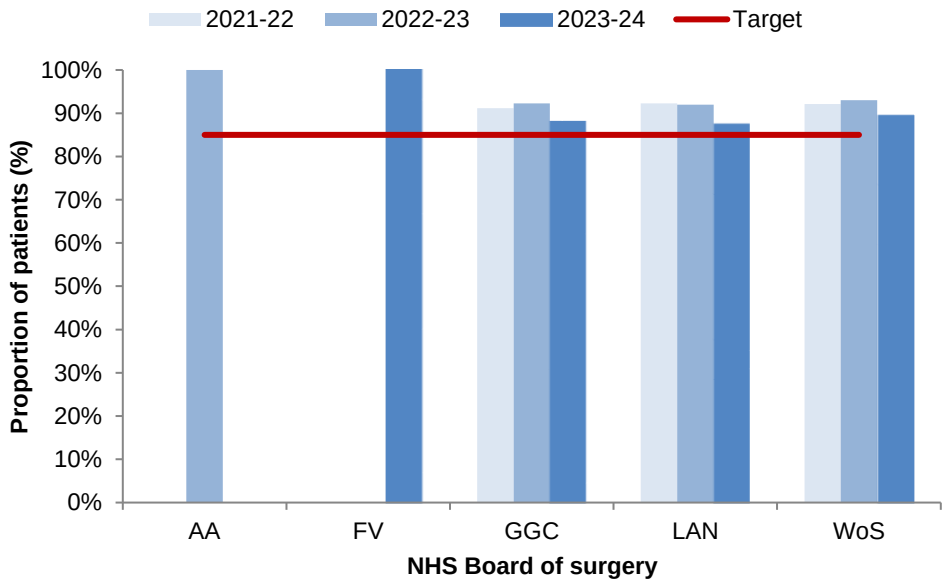
The QPI definition was changed at the last Formal Review to require imaging to be undertaken within 6 months of surgery. However, more patients now receive chemotherapy following chemoradiotherapy or radiotherapy and this has lengthened the period from endoscopy to surgery; consequently this six month timeframe is no longer appropriate. Of the patients included within the QPI, 96.8% did have their whole colon visualised, although for some it was more than 6 months prior to surgery. 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.

## QPI 7: Surgical Margins

| | | |
|---|---|---|
| **QPI 7:** | | Rectal cancers undergoing surgical resection should be adequately excised. |
| **Numerator:** | (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. |
| | (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. |
| **Denominator:** | (i) | All patients with rectal cancer who undergo elective primary surgical resection or immediate/early surgical resection following neo-adjuvant short course radiotherapy. |
| | (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). |
| **Exclusions:** | (i) | Patients who undergo transanal endoscopic microsurgery (TEM) / Transanal Minimally Invasive Surgery (TAMIS) or transanal resection of tumour (TART). |
| | (ii) | Patients who undergo transanal endoscopic microsurgery (TEM) / Transanal Minimally Invasive Surgery (TAMIS) or transanal resection of tumour (TART). |
| **Target:** | (i) | 95% |
| | (ii) | 85% |

**Specification (i)** The QPI was met by all NHS Boards and Sectors.

**Specification (ii)**




| Board / Area | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| **AA** | - | - | - |
| **FV** | 100% | 7 | 7 |
| NG | 91.7% | 22 | 24 |
| SG | 66.7% | 8 | 12 |
| Clyde | 95.7% | 22 | 23 |
| **GGC** | 88.1% | 52 | 59 |
| **Lan** | 87.5% | 14 | 16 |
| **WoS** | **89.5%** | **77** | **86** |

Within the South Glasgow sector of NHSGGC the 85% target was not met for this QPI. The cases for the four patients that did not have clear margins have been reviewed and all were undertaken by different surgeons. One of these patients had an involved margin with the other three patients having

clearance of less than 1mm. Three cases were undertaken by robotic-assisted surgery. It is important that surgical margins are clear of tumour wherever possible to ensure the best outcomes for patients. In light of changes in staffing and in surgical approach within the South Glasgow sector of NHSGGC, the sector would benefit from ongoing review of surgical outcomes. However it should be noted that this measure is based on small numbers of patients and that overall the circumferential margins were clear of tumour for 87.5% of rectal cancer surgeries undertaken within the sector (specification (i) and (ii) combined).

In addition it was noted that the number of patients included within this QPI was low for the South Glasgow sector of NHSGGC. This may be due to variation in how the rectum is defined between MDTs. The definition of the rectum, for the purposes of cancer audit, will be discussed at the upcoming Formal Review of colorectal cancer QPIs; in addition the WoSCAN colorectal cancer MCN are holding a workshop in February 2025 to discuss the management of rectal cancer, including discussion on agreeing a consistent definition for the rectum.

**Actions required:**

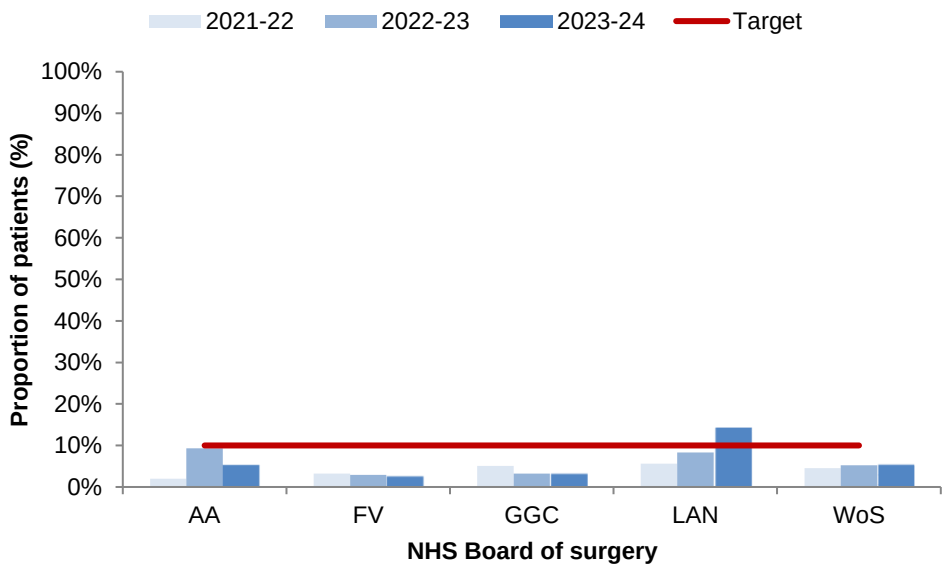
- **South Glasgow sector of NHSGGC to review surgical margins of patients with rectal cancer undergoing surgical resection, discuss at the MCN rectal cancer workshop in February 2025 and progress any actions identified as a result of review.**
- **MCN to instigate work to identify a common definition for rectal cancer through regional and Formal Review discussions.**

## QPI 9: Anastomotic Dehiscence

| | | |
|---|---|---|
| **QPI 9:** | For patients who undergo surgical resection for colorectal cancer anastomotic dehiscence should be minimised. | |
| **Numerator:** | (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). |
| **Denominator:** | (i) | All patients with colorectal cancer who undergo a surgical procedure involving anastomosis of the colon. |
| | (ii) | All patients with colorectal cancer who undergo a surgical procedure involving anastomosis of the rectum (including anterior resection with TME). |
| **Exclusions:** | No exclusions. | |
| **Target:** | (i) | <5% |
| | (ii) | <10% |

**Specification (i) – Anastomosis of the colon** The QPI was met by all NHS Boards and Sectors.

**Specification (ii) – Anastomosis or the rectum.**




| Board / Area | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| **AA** | 5.3% | 3 | 57 |
| **FV** | 2.6% | 1 | 39 |
| NG | 3.6% | 2 | 56 |
| SG | 3.0% | 2 | 67 |
| Clyde | 3.0% | 2 | 66 |
| **GGC** | 3.2% | 6 | 189 |
| **Lan** | 14.1% | 9 | 64 |
| **WoS** | **5.4%** | **19** | **349** |

This measure was not met in NHS Lanarkshire, where nine patients were recorded as having an anastomotic leak. Review of these cases highlighted that the majority had robotic-assisted surgery and eight of the patients required a return to theatre. The robotics team within NHS Lanarkshire actively review surgical outcomes and the Board are currently developing a rectal cancer pathway, including operative techniques, to ensure consistency in treatment provided to patients.

**Actions required:**

- **NHS Lanarkshire to actively review outcomes of robotic-assisted rectal cancer resection and address any areas for improvement identified.**
- **NHS Lanarkshire to present information on the progress on the development of the rectal cancer pathway within the Board at the MCN rectal cancer workshop in February 2024.**

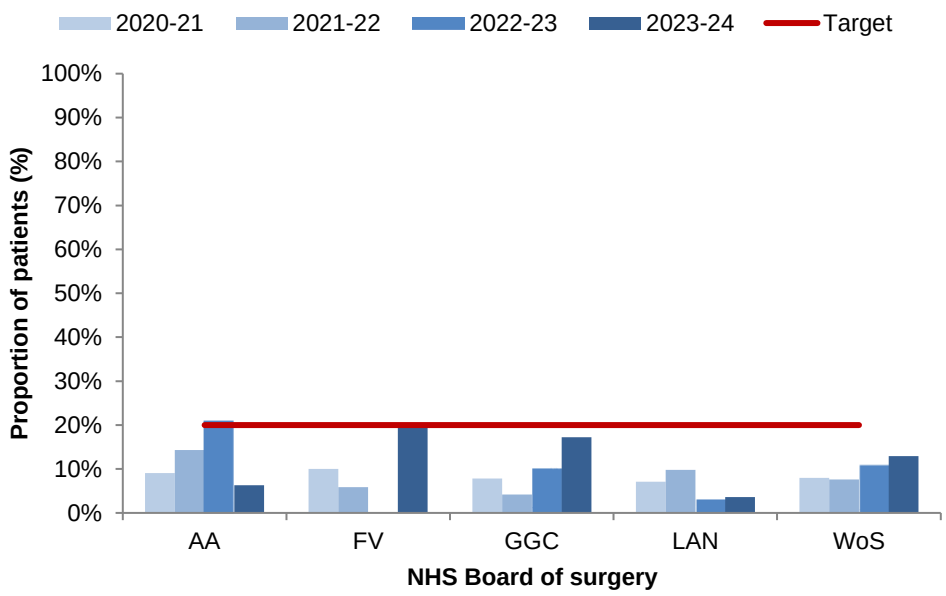
## QPI 10: 30 and 90 Day Mortality Following Surgical Resection

| | | | |
|---|---|---|---|
| **QPI 10:** | Mortality after surgical resection for colorectal cancer. | | |
| **Numerator:** | (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. | |
| **Denominator:** | (i) | All patients with colorectal cancer who undergo elective surgical resection. | |
| | (ii) | All patients with colorectal cancer who undergo emergency surgical resection. | |
| **Exclusions:** | No exclusions. | | |
| **Target:** | **(i)** | **Elective surgery:** | 30 day <3%<br>90 day <4% |
| | **(ii)** | **Emergency surgery:** | 30 day <15%<br>90 day <20% |

**Elective Surgery – 30 & 90 day mortality.** The QPI was met by all NHS Boards and Sectors.

**Emergency Surgery – 30 day mortality.** The QPI was met by all NHS Boards and Sectors.

**Emergency Surgery – 90 day mortality**




| Board / Area | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| **AA** | 6.3% | 1 | 16 |
| **FV** | 20.0% | 2 | 10 |
| NG | 22.2% | 4 | 18 |
| SG | 8.7% | 2 | 23 |
| Clyde | 20.7% | 6 | 29 |
| **GGC** | 17.1% | 12 | 70 |
| **Lan** | 3.6% | 1 | 28 |
| **WoS** | **12.9%** | **16** | **124** |

Within both the North Glasgow and Clyde sectors of NHSGGC more than 20% of patients died within 90 days of emergency surgery. Review of these cases indicated that patients largely died due to disease progression that could not have been predicted or respiratory complications, and that there were no areas of clinical concerns. Never-the-less the Clyde sector of NHSHHC did highlight the ongoing need for emphasis on pre-operative counselling and risk stratification. The outcomes of small numbers of patients can have a considerable impact on performance against this QPI and it should be noted that no NHS Boards consistently fail this measure.

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

| | |
|---|---|
| **QPI 12:** | Mortality after radical radiotherapy for colorectal cancer. |
| **Numerator:** | 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 |
| **Denominator:** | All patients with colorectal cancer who undergo neo-adjuvant chemoradiotherapy or radiotherapy with curative intent. |
| **Exclusions:** | No exclusions. |
| **Target:** | <1% |

**Neoadjuvant chemoradiotherapy.** The QPI was met by all NHS Boards and Sectors.

**Radical radiotherapy**

| Board / Area | 30 Day Mortality | | | | | 90 Day Mortality | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2023 - 24 Performance | Numerator | Denominator | 2022 – 23 Performance | 2021 - 22 Performance | 2023 - 24 Performance | Numerator | Denominator | 2022 – 23 Performance | 2021 - 22 Performance |
| AA | 0% | 0 | 9 | 0% | 0% | 0% | 0 | 9 | 0% | 0% |
| FV | 0% | 0 | 9 | 0% | - | 0% | 0 | 9 | 0% | - |
| NG | 0% | 0 | 14 | 5.6% | 0% | 0% | 0 | 14 | 5.6% | 0% |
| SG | 0% | 0 | 14 | 0% | 0% | 7.1% | 1 | 14 | 0% | 0% |
| Clyde | 0% | 0 | 13 | 0% | 0% | 0% | 0 | 13 | 7.7% | 0% |
| GGC | 0% | 0 | 41 | 1.6% | 0% | 2.4% | 1 | 41 | 3.2% | 0% |
| Lan | 5.9% | 1 | 17 | 0% | 0% | 6.7% | 1 | 15 | 0% | 0% |
| WoS | **1.3%** | **1** | **76** | **1.0%** | **0%** | **2.7%** | **2** | **74** | **1.9%** | **0%** |

Review of the two patients that died within 90 days of radical radiotherapy concluded that their deaths were not related to their radiotherapy treatment and that no areas of clinical concern were identified. It should be noted mortality was 0% in both the South Glasgow sector of NHCGGC and NHS Lanarkshire in previous years. Due to the small numbers of patients included within this measure, the outcome of a single patient can affect performance against this measure.

## QPI 15: Colorectal Liver Metastases

**QPI 15:** Patients with a new diagnosis of colorectal liver metastases should be referred to a Hepatobiliary (HPB) multidisciplinary team (MDT) to discuss their management.

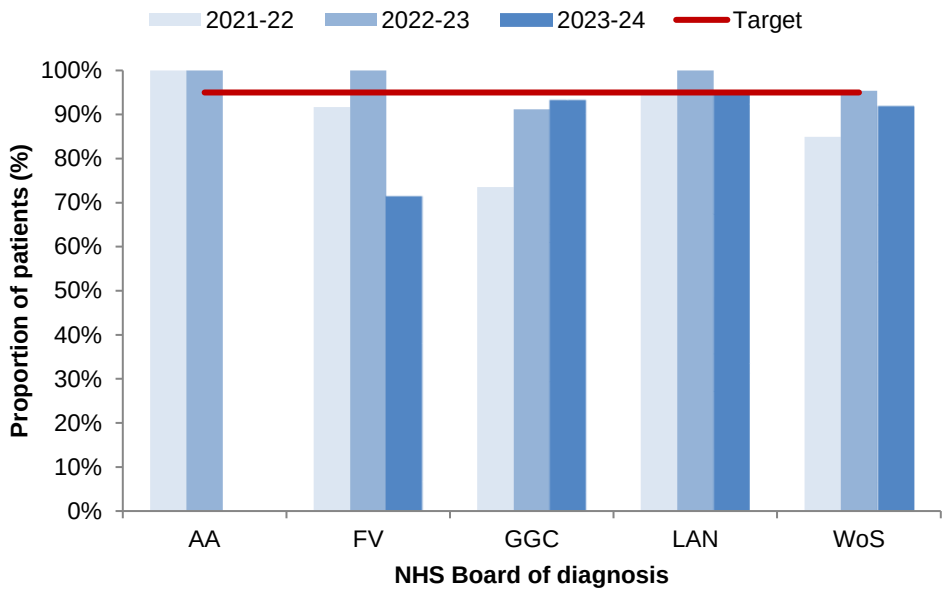
**Numerator:**
(i) Number of patients with a new diagnosis of synchronous colorectal liver metastases who are referred to a HPB MDT.
(ii) Number of patients registered at a Colorectal Cancer MDT with a new diagnosis of metachronous colorectal liver metastases who are referred to a HPB MDT.

**Denominator:**
(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.

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

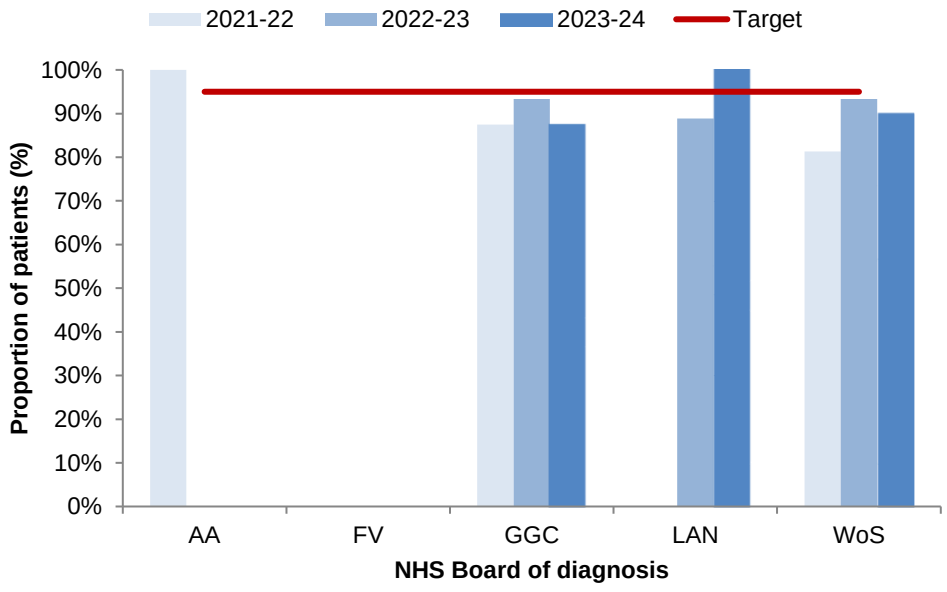
**Target:** **95%**

**Specification (i)**




| Board / Area | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| **AA** | - | - | - |
| **FV** | 71.4% | 5 | 7 |
| NG | 100% | 11 | 11 |
| SG | 100% | 24 | 24 |
| Clyde | 66.7% | 6 | 9 |
| **GGC** | 93.2% | 41 | 44 |
| **Lan** | 94.4% | 17 | 18 |
| **WoS** | **91.8%** | **67** | **73** |

**Specification (ii)**




| Board / Area | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| **AA** | - | - | - |
| **FV** | - | - | - |
| NG | - | - | - |
| SG | 83.3% | 5 | 6 |
| Clyde | 87.5% | 7 | 8 |
| **GGC** | 87.5% | 14 | 16 |
| **Lan** | 100% | 8 | 8 |
| **WoS** | **90.0%** | **27** | **30** |

Following an improvement in performance in this QPI in 2022-23, the second year of reporting, there was no further improvement in the proportion of patients referred to the HPB MDT in 2023-24. Review of the nine patients not being referred indicated that the vast majority of these were considered by the colorectal cancer MDT to have inoperable liver disease. Some, but not all, of these patients were discussed by the MDT at the Clyde sector of NHSGGC where an experienced HPB surgeon attends the MDT, reviews imaging and advises on the suitability of patients for liver resection.

A colorectal cancer MDT should not generally make the decision on whether liver metastases are resectable, as this requires the expertise of HPB clinicians. However in instances where an HPB surgeon is present at the colorectal cancer MDT, reviews radiological imaging and advises that the patients is clearly not suitable for treatment it is pragmatic to take this advice into account when considering whether to refer to the patient to the HPB MDT. NHSGGC have a Colorectal Cancer Liver

Metastases MDT and are keen to expand this service to other NHS Boards within the region, however this would require additional resource.

This QPI reports only a small proportion of the 315 patients diagnosed with colorectal cancer liver metastases and registered with the colorectal cancer MDT during 2023-24, as the vast majority fall into one of the four exclusion categories (the most common being patients having extra-hepatic disease). While some patients will not be recorded as having colorectal cancer liver metastases within the audit if their liver metastases diagnosis is not registered with the colorectal cancer MDT, it is estimated that this will be relatively small numbers of patients and that the vast majority of liver metastases are captured within cancer audit.

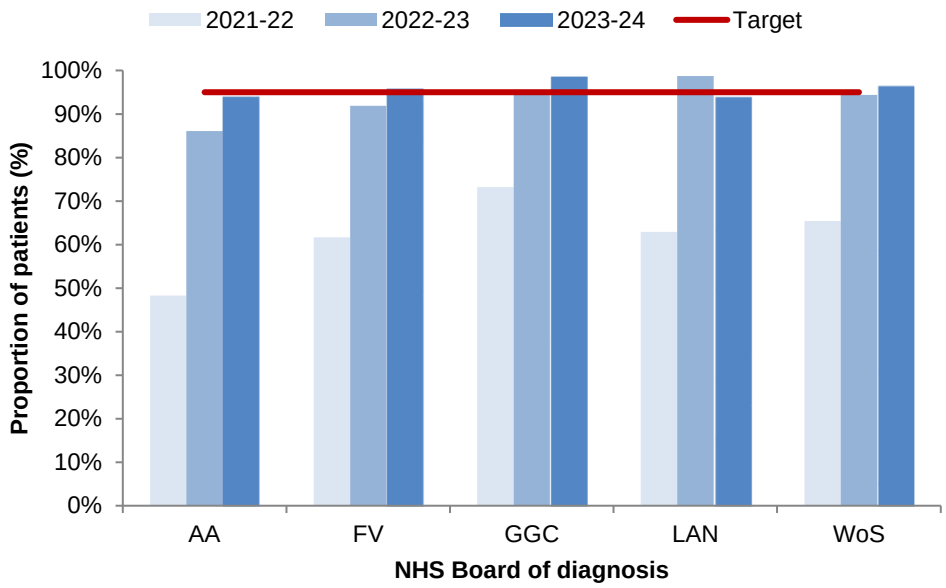
**Action Required:**

- **NHS Boards to ensure that all patients with colorectal liver metastases not meeting the specific exclusions of QPI 15 are referred to an HPB MDT to enable HPB clinicians to make decisions on whether the patients liver metastases can be treated**.

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

| | |
|---|---|
| **QPI 16:** | 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. |
| **Numerator:** | (i) Number of patients with colorectal cancer who have MMR/MSI status assessed.<br>(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. |
| **Denominator:** | (i) All patients with colorectal cancer.<br>(ii) All patients with colorectal cancer who have MMR/MSI status assessed where results are suggestive of Lynch Syndrome. |
| **Exclusions:** | No exclusions. |
| **Target:** | **(i) 95%**<br>**(ii) 90%** |

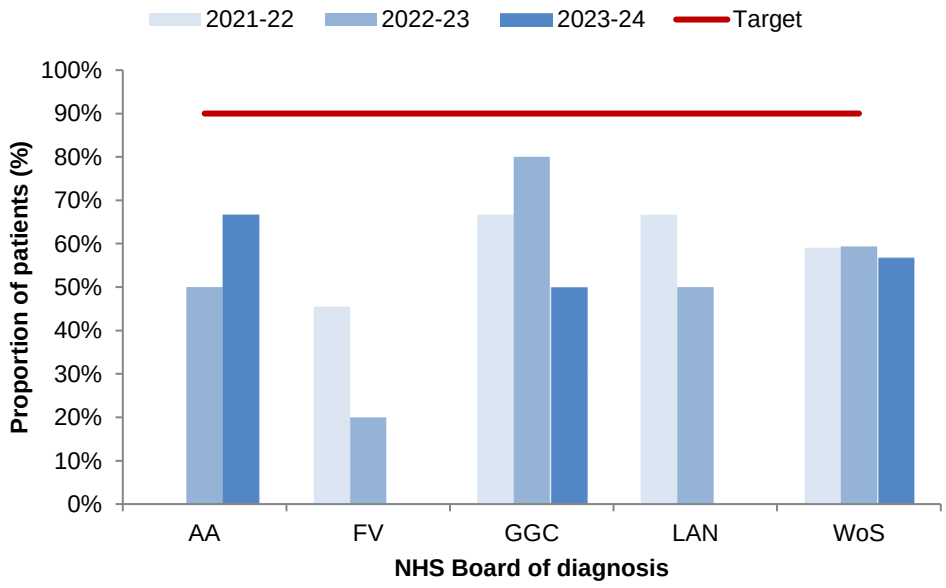
**Specification (i)**




| Board / Area | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| **AA** | 93.9% | 231 | 246 |
| **FV** | 95.7% | 156 | 163 |
| NG | 98.4% | 184 | 187 |
| SG | 97.8% | 317 | 324 |
| Clyde | 99.2% | 240 | 242 |
| **GGC** | 98.4% | 741 | 753 |
| **Lan** | 93.8% | 364 | 388 |
| **WoS** | **96.3%** | **1492** | **1550** |

MMR/MSI testing was not routinely undertaken for all patients in WoSCAN in 2021 but was rolled out throughout the region in early 2022, explaining the considerable improvement in this second year of reporting. A further small improvement was seen in 2023-24 with the measure being met for the first time at a regional level. NHS Lanarkshire will remind MDT members to ensure that MMR/MSI status is requested. Review of patients not meeting the QPI in NHS Ayrshire & Arran identified that the main reasons for patients not having MMR/MSI testing were (i) inadequate tissue for molecular testing to be undertaken and (ii) outsourcing of pathology reporting. For those patient where MMR/MSI testing had been omitted due to outsourcing of pathology reporting, molecular testing has now been requested and the process for MMR/MSI testing reviewed and discussed with the pathology department. It is anticipated that these actions will result in ongoing improvement in performance against this measure.

**Specification (ii)**




| Board / Area | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| **AA** | 66.7% | 6 | 9 |
| **FV** | - | - | - |
| NG | - | - | - |
| SG | 66.7% | 6 | 9 |
| Clyde | 30.0% | 3 | 10 |
| **GGC** | 50.0% | 11 | 22 |
| **Lan** | - | - | - |
| **WoS** | **56.8%** | **21** | **37** |

Molecular testing results are often reported after patients have been discussed at the MDT following surgery. Once results are available they are posted on the NHSGGC Clinical Portal but no result or alert is sent to the responsible clinician or the MDT, resulting in some results suggestive of Lynch Syndrome being missed and not referred onto genetics services. Reporting of this QPI helps to identify such patients, and the MCN will work with the WoSCAN Boards to facilitate the review of patients not meeting this QPI and consider referral.

Individual NHS Boards have been taking steps to ensure that MMR/MSI results are flagged to clinicians; for example NHS Forth Valley are undertaking work to identify a follow-up mechanism with the speciality nurse while the Clyde sector of NHSGGC have tasked the MDT coordinator with adding genetic testing results to the MDT list for timely discussion. However, as all MMR/MSI testing within the region is undertaken within NHSGGC, a regional alert process would be preferable. As such, the MCN will work with molecular pathology services and clinical genetics services to develop a more effective communication pathway for MMR/MSI results so that patients are referred to genetics services in a timely manner where appropriate.

**Actions Required:**

- **MCN to work with all NHS Boards to review any patients where MMR/MSI results are suggestive of Lynch Syndrome but have not yet been referred to Genetics Services and consider referral.**
- **MCN to work with molecular pathology services and clinical genetics services to agree a process for communicating results to clinicians when they are suggestive of Lynch Syndrome to ensure prompt referral to genetics services where appropriate.**

## Appendix 1: Meta Data

| | |
|---|---|
| Report Title | Cancer Audit Report: Colorectal Cancer Quality Performance Indicators |
| Time Period | Patients diagnosed between 01 April 2023 to 31 March 2024 |
| QPI Version | Colorectal Cancer QPIs v4 |
| Data extraction date | 0800 hrs on 3 October 2024 |
| Data Quality | |

| Health Board of diagnosis | 2023-24 Audit Data | Cases from Cancer registry (2018-2022) | Case Ascertainment |
|---|---|---|---|
| Ayrshire & Arran | 279 | 255 | 109.4% |
| FV | 193 | 213 | 90.6% |
| GGC | 839 | 851 | 98.6% |
| Lanarkshire | 429 | 385 | 111.4% |
| **WoS Total** | **1740** | **1704** | **102.1%** |