# Quality Performance Indicators Audit Report

| | |
|---|---|
| **Tumour Area:** | Colorectal Cancer |
| **Patients Diagnosed:** | 1st April 2017 – 31st March 2018 |
| **Published Date:** | 26th March 2019 |
| **Clinical Commentary:** | Mr Mike Walker<br>North Cancer Colorectal Clinical Director |

## 1. Colorectal Cancer in Scotland

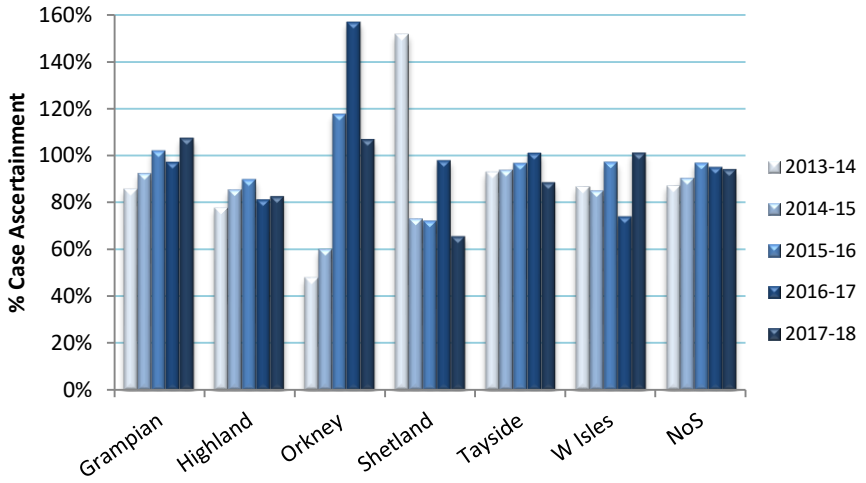
Colorectal cancer is the third most common cancer in Scotland with approximately 3,700 cases diagnosed in Scotland in 2016. Over the last decade the incidence rate has decreased by 9% in women and 18% for men. Modifiable risk factors for colorectal cancer are thought to include diet, lack of physical activity and long-term smoking[1]. Relative survival for colorectal cancer is increasing[2]. The table below shows the percentage change in one-year and five-year age-standardised survival rates for patients diagnosed in 1987-1981 compared to those diagnosed in 2007-2011.

**Relative age-standardised survival for colorectal cancer in Scotland at 1 year and 5 years showing percentage change from 1987-1981 to 2007-2011[2].**

| | Relative survival at 1 year (%) | | Relative survival at 5 years (%) | |
|---|---|---|---|---|
| | 2007-2011 | % change | 2007-2011 | % change |
| **Colorectal Cancer** | 78.0% | + 13.1% | 60.4% | + 18.0% |

## 2. Patient Numbers and Case Ascertainment in the North of Scotland

Between 1st April 2017 and 31st March 2018 a total of 882 cases of colorectal cancer were diagnosed in the North of Scotland and recorded through audit. Overall case ascertainment was high at 94.1% which indicates very good data capture through audit. Audit data were considered to be sufficiently complete to allow QPI calculations: the number of instances of data not being recorded was generally very low, however there were a few notable gaps across the region, which will affect the accuracy of QPI results. The most considerable gap was the absence of data on 'Intent of Surgery' for 92 patients across the North of Scotland, most notably in NHS Grampian. This omission will have affected the results of QPI 5 considerably as well as QPI 1 and 2, although is an improvement on previous years.

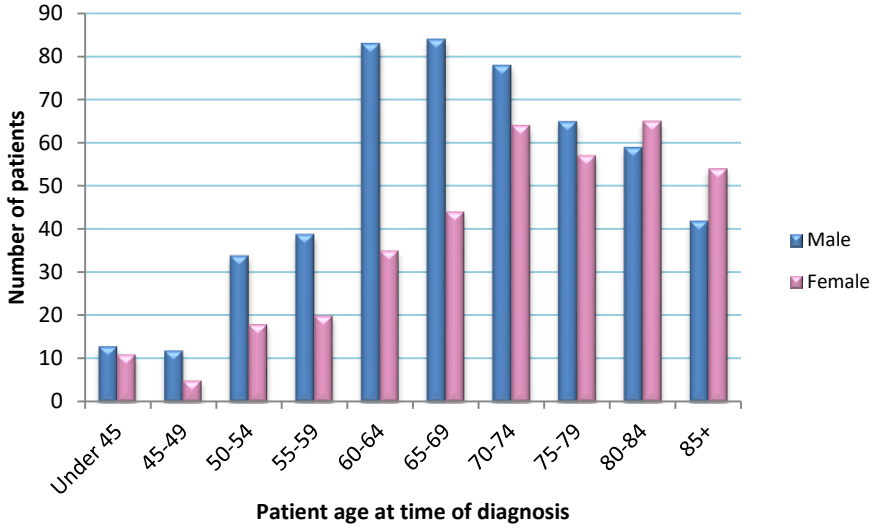



**Case ascertainment by NHS Board for patients diagnosed with colorectal cancer in 2013/14 – 2017/18.**

| | Grampian | Highland | Orkney | Shetland | Tayside | W Isles | NoS |
|---|---|---|---|---|---|---|---|
| **No. of Patients 2017-18** | 371 | 173 | 11 | 12 | 294 | 21 | **882** |
| **% of NoS total** | 37.9% | 19.3% | 1.8% | 2.1% | 37.1% | 1.8% | **100%** |
| **Mean ISD Cases 2012-16** | 346 | 210 | 10 | 18 | 333 | 21 | **938** |
| **% Case ascertainment 2017-18** | 107.2% | 82.6% | 106.8% | 65.6% | 88.3% | 101.0% | **94.1%** |

## 3. Age Distribution

The figure below shows the age distribution of patients diagnosed with colorectal cancer in the North of Scotland in 2017-18, with numbers highest in the 65-69 year age bracket for men and 80-84 year age bracket for women.




**Age distribution of patients diagnosed with colorectal cancer in the NoS in 2017-18.**

## 4. Performance against Quality Performance Indicators (QPIs)

Definitions for the QPIs reported in this section are published by Health Improvement Scotland[3], while further information on datasets and measurability used are available from Information Services Division[4]. Data for QPIs are presented by NHS Board of diagnosis with the exception of surgical QPIs

(QPIs 4, 5, 7, 8, 9 and 10), which are reported by NHS Board of surgery. Please not that where QPI definitions have been amended, results are not compared with those from previous years.

## 5. Governance and Risk

Governance is defined as the combination of structures and processes at all levels to lead on North quality performance including:

- Ensuring accountability for quality and required standards
- Investigating and taking action on sub-standard performance
- Identifying, sharing and ensuring delivery of best-practice
- Identifying and managing risks to ensure quality of care
- Driving continuous improvement

Our current governance structure provides assurance to the boards that risks associated QPIs are being addressed as an alliance. Clinical risks are discussed at the Colorectal Cancer Pathway Board (NCCPB) and Regional Cancer Clinical Leadership Group (RCCLG). Risk levels are jointly agreed. The RCCLG are presented with all available evidence and actions so they have all the information to define the risk in a collaborative way.

**Tolerate -** Accept the risk at its current level

**Mitigate -** Reduce or mitigate the risk, in terms of reducing the likelihood of its occurrence or reducing the severity of impact if it does occur. This can be assessed through the action plans provided or the information provided is appropriate to prevent reoccurrence.

**Escalate -** Escalate the risk to the appropriate committee and/or take further action as the mitigations were not suitable or there are no actions identified to mitigate the risk. This will be revisited by the RCCLG for further risk discussion.

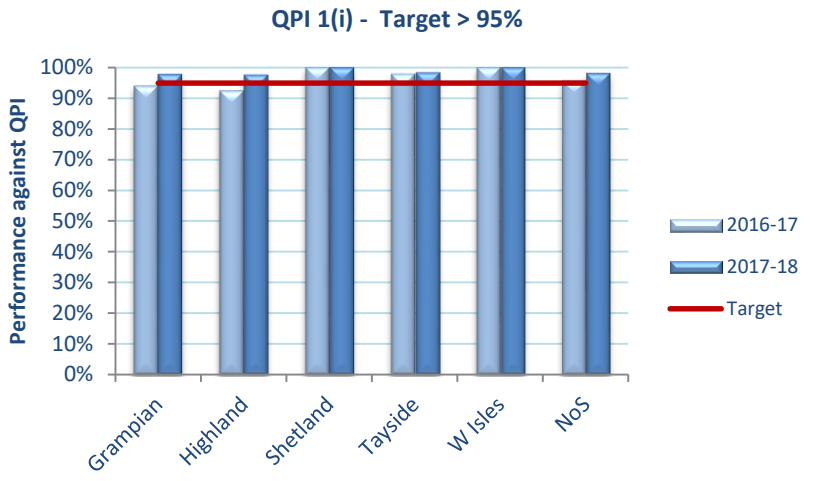
**Immediate -** Immediate action is required to prevent the risk reoccurring. This risk will have major impact on patient care delivery and the consequences thereafter. Very few risks should occur in this level.

| Severity / Reoccurence | Negligible | Marginal | Critical | Major |
|---|---|---|---|---|
| Frequent | Mitigate | Escalate | Immediate | Immediate |
| Probable | Mitigate | Escalate | Immediate | Immediate |
| Occasional | Tolerate | Mitigate | Escalate | Immediate |
| Remote | Tolerate | Mitigate | Mitigate | Escalate |
| Improbable | Tolerate | Tolerate | Mitigate | Mitigate |
| Eliminated | | | | |

The full governance document on risk should be referred to in conjunction with this summary, which is available on the NCA website[5].

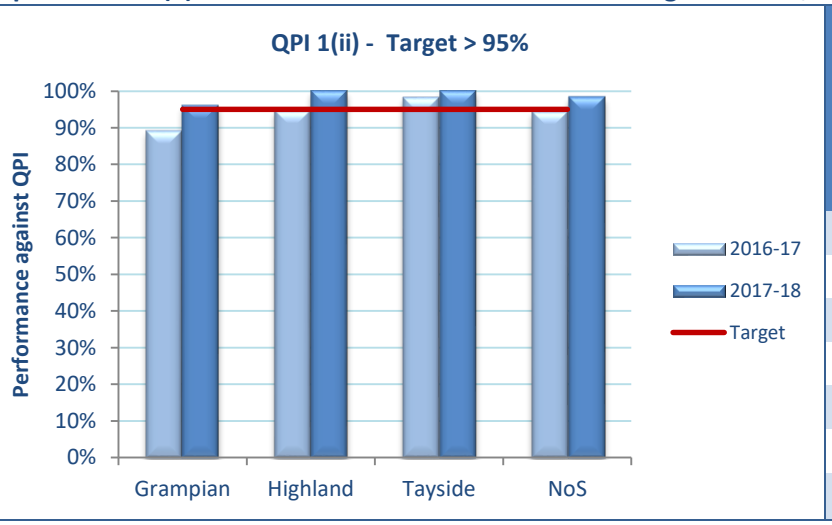
| QPI 1 | Radiological Diagnosis and Staging |
|---|---|
| Proportion of patients with colorectal cancer who undergo CT chest, abdomen and pelvis (colorectal cancer) plus MRI pelvis (rectal cancer only) before definitive treatment. | |

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




| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **97.8%** | 134 | 137 |
| Highland | **97.6%** | 80 | 82 |
| Orkney* | - | - | - |
| Shetland | **100%** | 7 | 7 |
| Tayside | **98.3%** | 116 | 118 |
| W Isles | **100%** | 12 | 12 |
| NoS | **98.1%** | **352** | **359** |

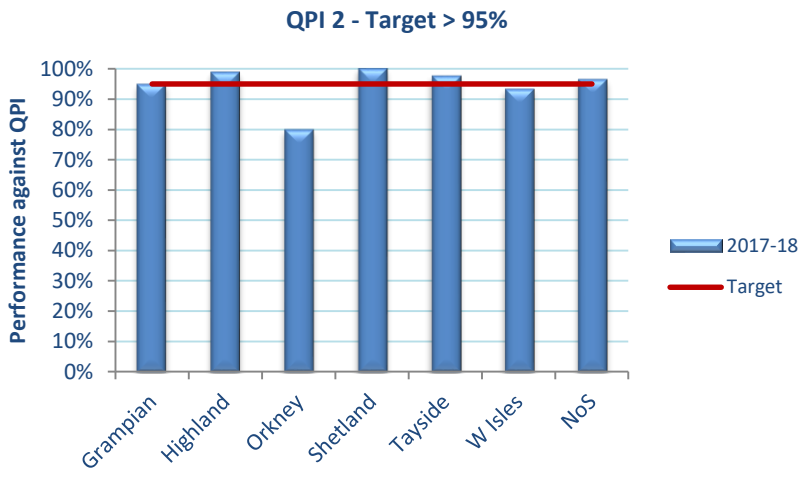
### Specification (ii) Patients with rectal cancer who undergo CT chest, abdomen and pelvis and MRI.




| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **95.9%** | 47 | 49 |
| Highland | **100%** | 27 | 27 |
| Orkney* | - | - | - |
| Shetland* | - | - | - |
| Tayside | **100%** | 38 | 38 |
| W Isles* | - | - | - |
| NoS | **98.3%** | **118** | **120** |

| | |
|---|---|
| **Clinical Commentary** | |
| **Actions** | No actions identified |
| **Risk Status** | Tolerate |

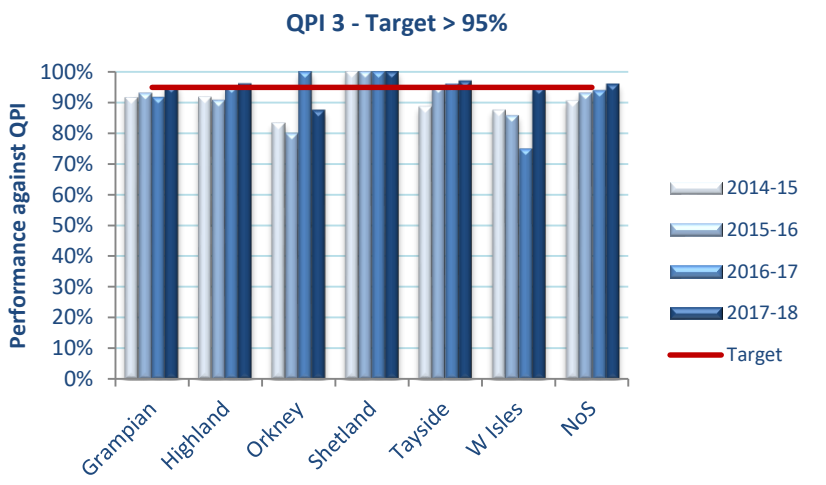
| QPI 2 | Pre-Operative Imaging of the Colon |
|---|---|
| Proportion of patients with colorectal cancer who undergo elective surgical resection who have the whole colon visualised by colonoscopy or CT colonography pre-operatively, unless the non-visualised segment of colon is to be removed. | |




| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **94.9%** | 148 | 156 |
| Highland | **98.9%** | 94 | 95 |
| Orkney | **80.0%** | 4 | 5 |
| Shetland | **100%** | 7 | 7 |
| Tayside | **97.6%** | 165 | 169 |
| W Isles | **93.3%** | 14 | 15 |
| NoS | **96.6%** | **432** | **447** |

| | |
|---|---|
| **Clinical Commentary** | NHS Grampian did not reach this target by 8 patients (0.1%). Some of the reasons patients from Grampian failed this QPI were risk of obstruction so alternative procedure took place, previous colonoscopy and two patients were identified as not having appropriate imaging pre-op, which has been addressed. Grampian also faced issues with recording intent of surgery which contributed to the failure of this QPI. Mechanisms to capture this data have now been put in place.<br><br>NHS Orkney and NHS Western Isles did not meet this target due to the lack of imaging for a single patient. Performance against this target will be monitored for these boards in the future years. |
| **Actions** | No actions identified |
| **Risk Status** | Tolerate |

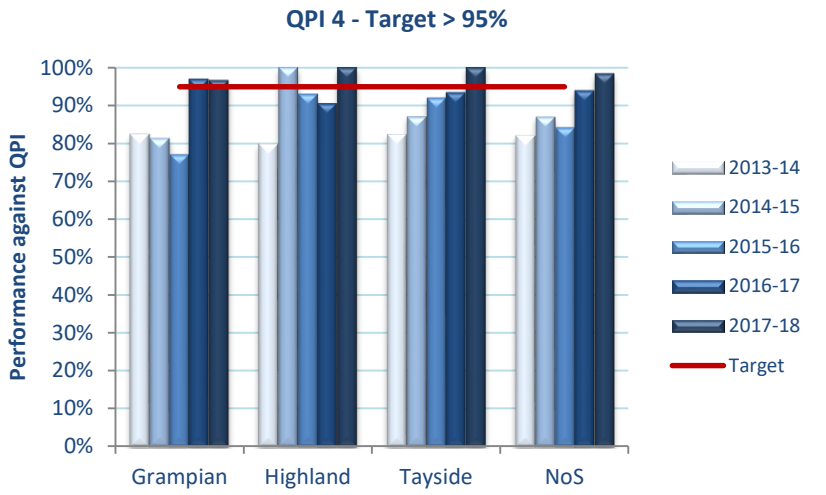
| QPI 3 | Multi-Disciplinary Team (MDT) Meeting |
|---|---|
| Proportion of patients with colorectal cancer who are discussed at MDT meeting before definitive treatment. | |




| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **95.2%** | 276 | 290 |
| Highland | **96.1%** | 124 | 129 |
| Orkney | **87.5%** | 7 | 8 |
| Shetland | **100%** | 12 | 12 |
| Tayside | **97.0%** | 229 | 236 |
| W Isles | **94.7%** | 18 | 19 |
| NoS | **96.0%** | **666** | **694** |

| | |
|---|---|
| **Clinical Commentary** | NHS Orkney and NHS Western Isles failed to meet his QPI due to the lack of MDT discussion of one patient in each board. These patients were identified for supportive care only. |
| **Actions** | No actions identified |
| **Risk Status** | Tolerate |

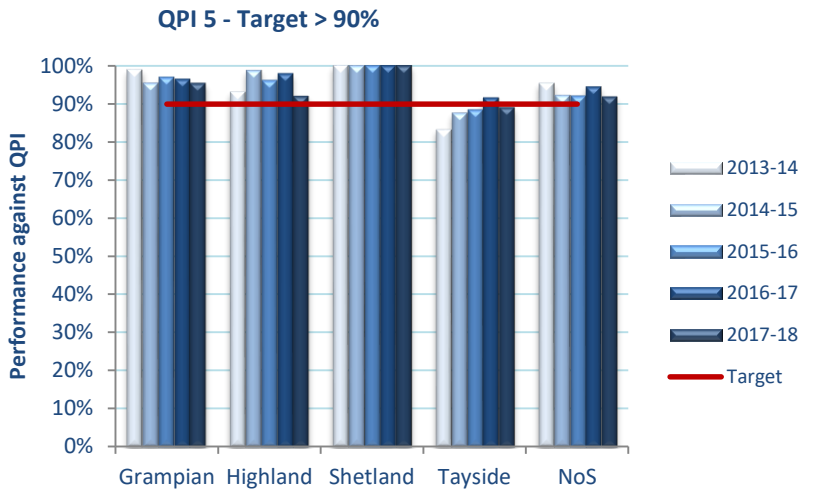
| QPI 4 | Stoma Care |
|---|---|
| Proportion of patients with colorectal cancer who undergo elective surgical resection which involves stoma creation who are seen and have their stoma site marked pre-operatively by a nurse with expertise in stoma care. | |




| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **96.6%** | 56 | 58 |
| Highland | **100%** | 29 | 29 |
| Orkney | - | 0 | 0 |
| Shetland* | - | - | - |
| Tayside | **100%** | 40 | 40 |
| W Isles | - | 0 | 0 |
| NoS | **98.4%** | **126** | **128** |

| | |
|---|---|
| **Clinical Commentary** | |
| **Actions** | No actions identified |
| **Risk Status** | Tolerate |

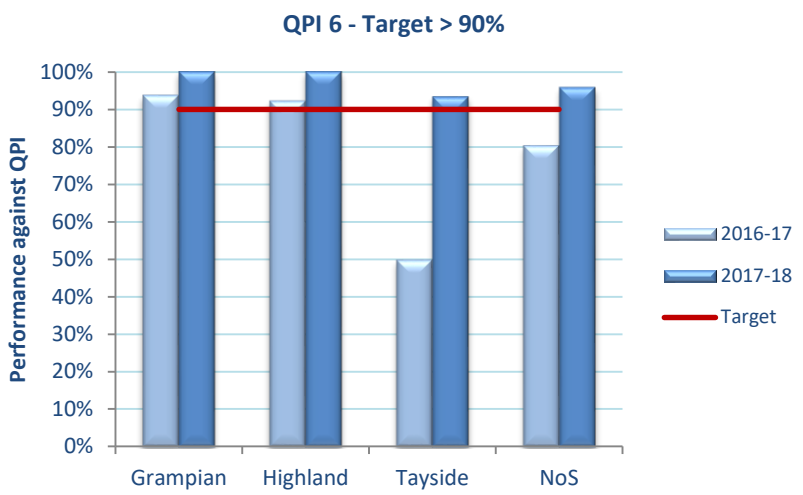
| QPI 5 | Lymph Node Yield |
|---|---|
| Proportion of patients with colorectal cancer who undergo surgical resection where ≥12 lymph nodes are pathologically examined. | |




| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **95.4%** | 104 | 109 |
| Highland | **92.0%** | 104 | 113 |
| Orkney* | - | - | - |
| Shetland | **100%** | 6 | 6 |
| Tayside | **89.1%** | 155 | 174 |
| W Isles* | - | - | - |
| NoS | **91.9%** | **372** | **405** |

| | |
|---|---|
| **Clinical Commentary** | In NHS Tayside, 19 patients did not meet this QPI but the target was missed by only 0.9%, which represents two patients. Various reasons contribute to the failure of this QPI such as patients who have been identified as too frail for standard lymphadenectomy or obese patients with a limited number of lymph nodes found in the sample. NHS Tayside will review these cases and performance will be monitored in future years. |
| **Actions** | 1. NHS Tayside to review individual cases for next NCCPB |
| **Risk Status** | Tolerate |

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

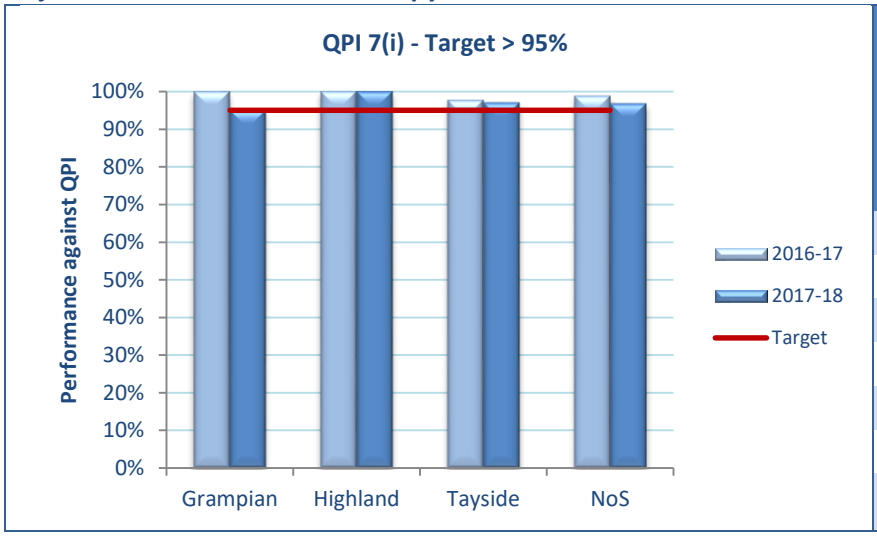



| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **100%** | 20 | 20 |
| Highland | **100%** | 10 | 10 |
| Orkney | - | 0 | 0 |
| Shetland* | - | - | - |
| Tayside | **93.3%** | 14 | 15 |
| W Isles* | - | - | - |
| NoS | **95.8%** | **46** | **48** |

| | |
|---|---|
| **Clinical Commentary** | |
| **Actions** | No actions identified |
| **Risk Status** | Tolerate |

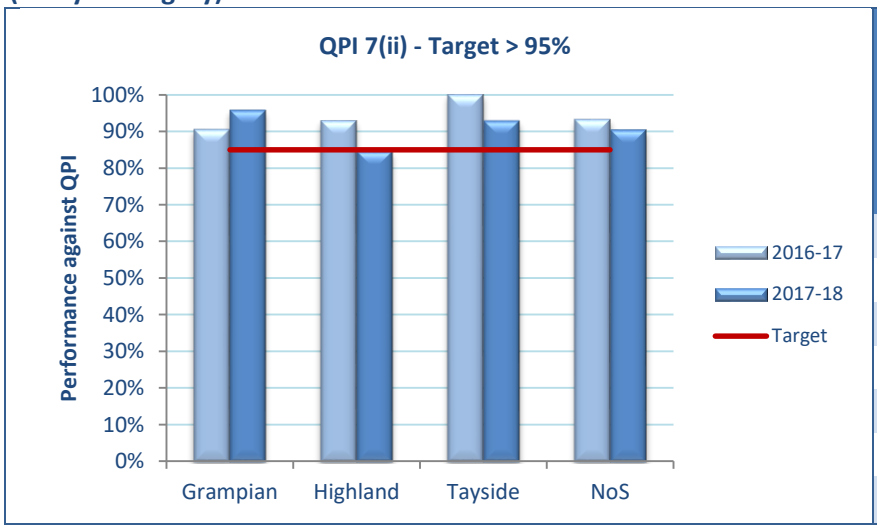
| QPI 7 | Surgical Margins |
|---|---|
| Proportion of patients with rectal cancer who undergo surgical resection in which the circumferential margin is clear of tumour. | |

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




| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **95.0%** | 19 | 20 |
| Highland | **100%** | 10 | 10 |
| Orkney | - | 0 | 0 |
| Shetland | - | 0 | 0 |
| Tayside | **97.0%** | 32 | 33 |
| W Isles | - | 0 | 0 |
| NoS | **96.8%** | **61** | **63** |

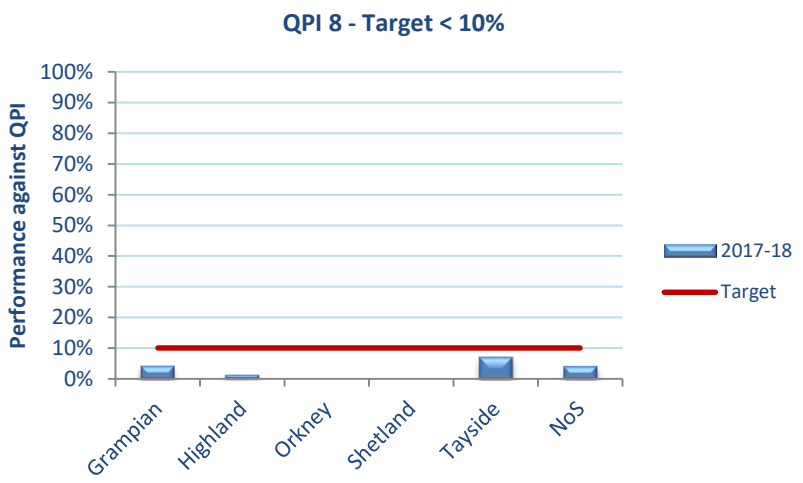
**Specification (ii) Patients undergoing surgery following neo-adjuvant chemotherapy, long course chemoradiotherapy, long course radiotherapy or short course radiotherapy with long course intent (delay to surgery).**




| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **95.8%** | 23 | 24 |
| Highland | **84.6%** | 11 | 13 |
| Orkney | - | 0 | 0 |
| Shetland* | - | - | - |
| Tayside | **92.9%** | 13 | 14 |
| W Isles | - | 0 | 0 |
| NoS | **90.4%** | **47** | **52** |

| | |
|---|---|
| **Clinical Commentary** | |
| **Actions** | No actions identified |
| **Risk Status** | Tolerate |

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

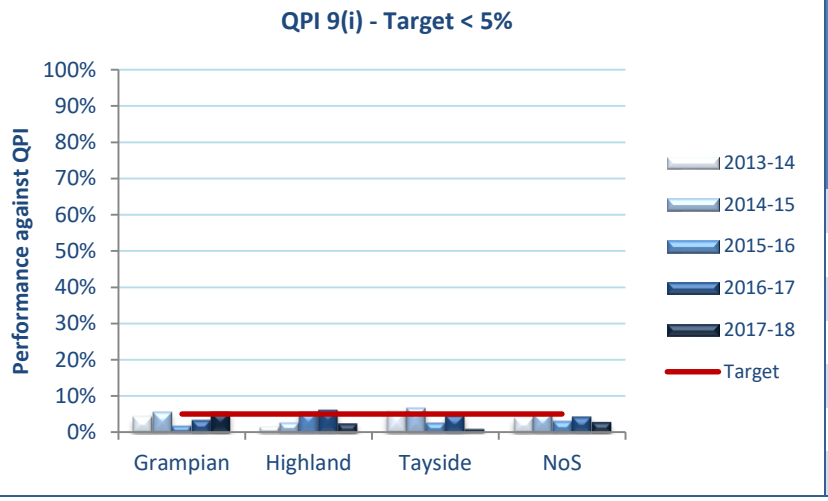



| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **4.2%** | 9 | 215 |
| Highland | **1.4%** | 2 | 141 |
| Orkney | **0%** | 0 | 5 |
| Shetland | **0%** | 0 | 7 |
| Tayside | **7.1%** | 10 | 141 |
| W Isles* | **-** | - | - |
| NoS | **4.1%** | **21** | **511** |

| | |
|---|---|
| **Clinical Commentary** | |
| **Actions** | No actions identified |
| **Risk Status** | Tolerate |

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

### Specification (i) Patients undergoing colonic anastomosis



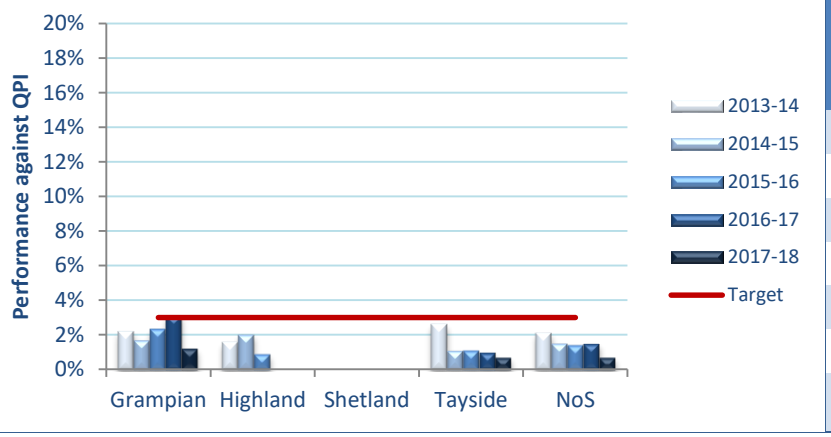

| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **5.4%** | 5 | 93 |
| Highland | **2.5%** | 2 | 80 |
| Orkney | **0%** | 0 | 5 |
| Shetland* | - | - | - |
| Tayside | **1.1%** | 1 | 93 |
| W Isles* | - | - | - |
| NoS | **2.9%** | **8** | **277** |

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

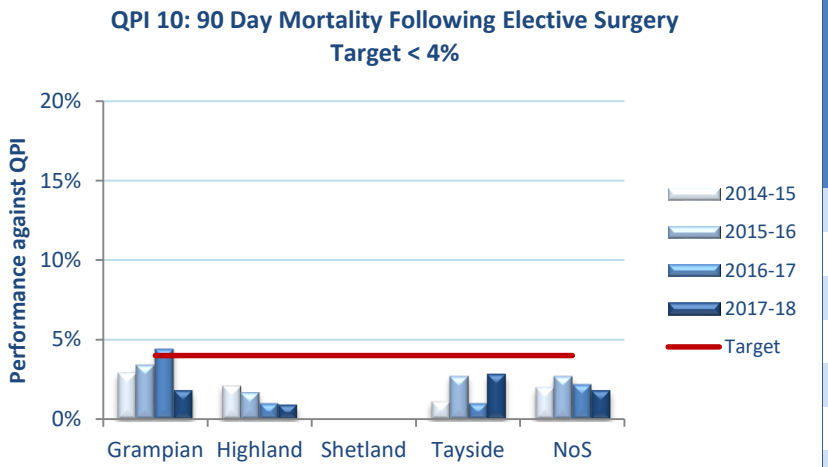

| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **1.9%** | 1 | 53 |
| Highland | **2.9%** | 1 | 34 |
| Orkney | - | 0 | 0 |
| Shetland* | - | - | - |
| Tayside | **4.8%** | 3 | 63 |
| W Isles | - | 0 | 0 |
| NoS | **3.3%** | **5** | **152** |

| | |
|---|---|
| **Clinical Commentary** | NHS Grampian marginally missed the target for (i) by 0.4%, however review of the patients that did have an anastomotic leak reveals that all had emergency surgery and that this surgery was performed by different surgeons. There was no suggestion of any systemic issues with the quality of surgery performed. |
| **Actions** | No actions identified |
| **Risk Status** | Tolerate |

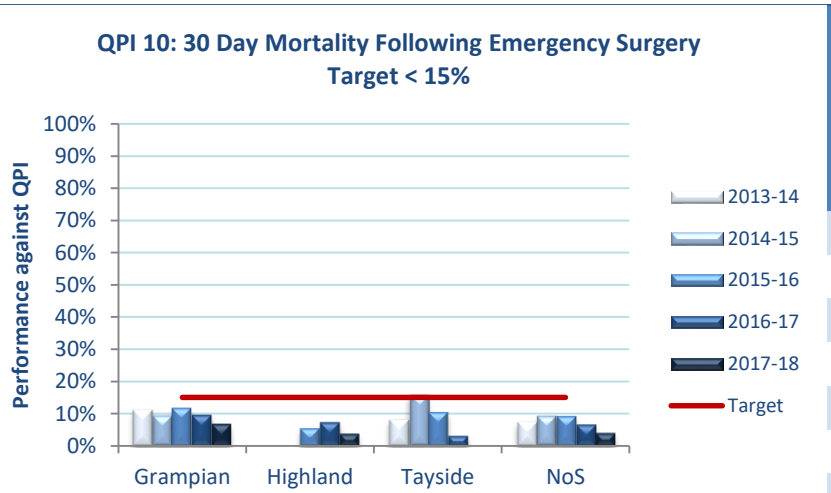
| QPI 10 | 30 and 90 Day Mortality following Surgical Resection |
|---|---|
| Proportion of patients with colorectal cancer who die within 30 or 90 days of emergency or elective surgical resection. | |



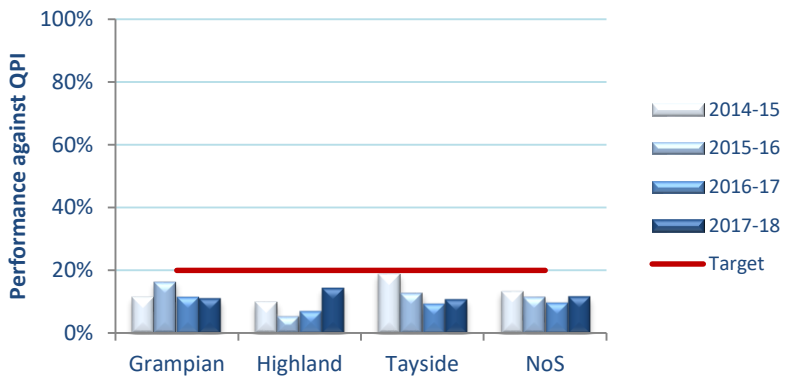

| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **1.2%** | 2 | 169 |
| Highland | **0%** | 0 | 113 |
| Orkney* | - | - | - |
| Shetland | **0%** | 0 | 7 |
| Tayside | **0.7%** | 1 | 148 |
| W Isles* | - | - | - |
| NoS | **0.7%** | **3** | **442** |




| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **1.8%** | 3 | 168 |
| Highland | **0.9%** | 1 | 111 |
| Orkney* | - | - | - |
| Shetland | **0%** | 0 | 7 |
| Tayside | **2.8%** | 4 | 142 |
| W Isles* | - | - | - |
| NoS | **1.8%** | **8** | **433** |




| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **6.5%** | 3 | 46 |
| Highland | **3.6%** | 1 | 28 |
| Orkney* | - | - | - |
| Shetland | - | 0 | 0 |
| Tayside | **0%** | 0 | 28 |
| W Isles | - | 0 | 0 |
| NoS | **3.8%** | **4** | **104** |

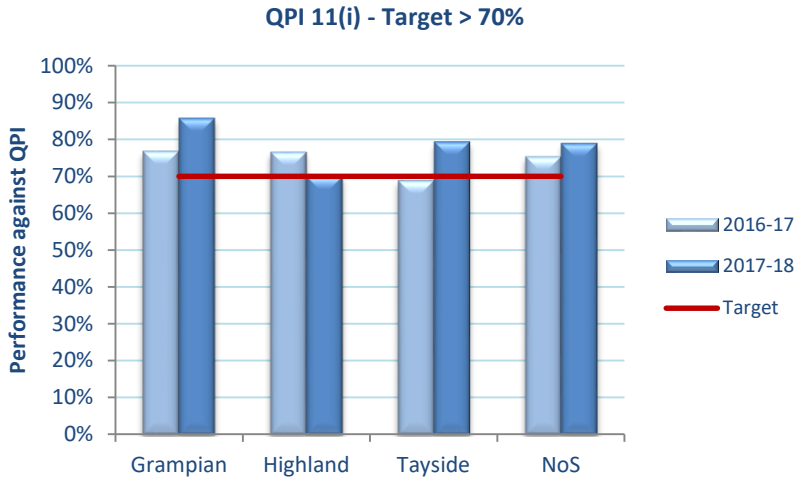



| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **11.1%** | 5 | 45 |
| Highland | **14.3%** | 4 | 28 |
| Orkney* | - | - | - |
| Shetland | - | 0 | 0 |
| Tayside | **10.7%** | 3 | 28 |
| W Isles | - | 0 | 0 |
| NoS | **11.7%** | **12** | **103** |

| | |
|---|---|
| **Clinical Commentary** | |
| **Actions** | No actions identified |
| **Risk Status** | Tolerate |

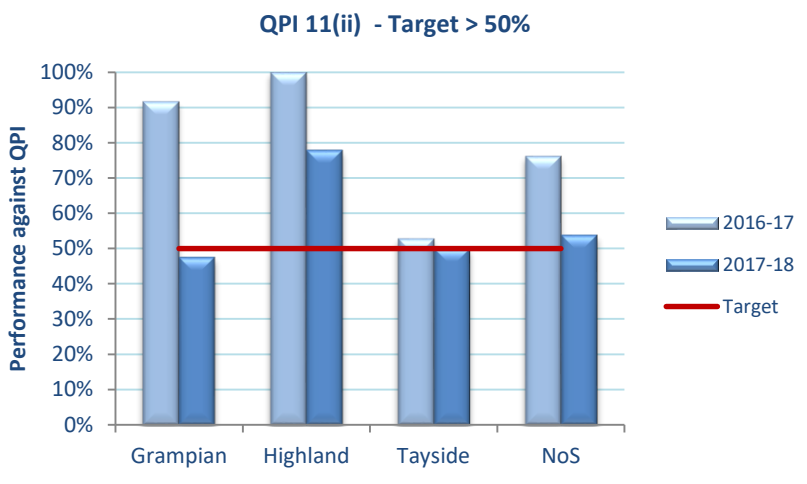
| QPI 11 | Adjuvant Chemotherapy |
|---|---|
| Proportion of patients between 50 and 74 years of age at diagnosis with Dukes C, or high risk Dukes B, colorectal cancer who receive adjuvant chemotherapy. | |

## Patients with Dukes C colorectal cancer




| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **85.7%** | 24 | 28 |
| Highland | **70.0%** | 7 | 10 |
| Orkney* | - | - | - |
| Shetland* | - | - | - |
| Tayside | **79.3%** | 23 | 29 |
| W Isles* | - | - | - |
| NoS | **78.9%** | **56** | **71** |

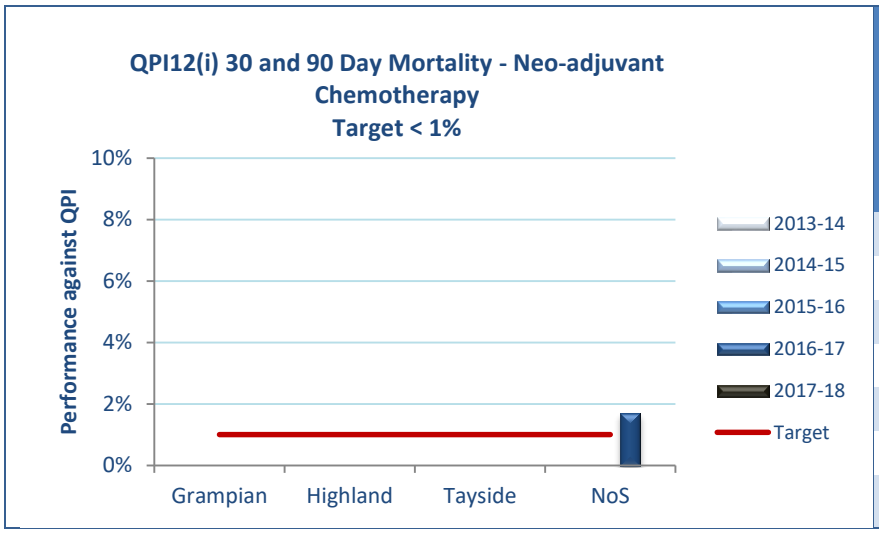
## Patients with high risk Dukes B colorectal cancer



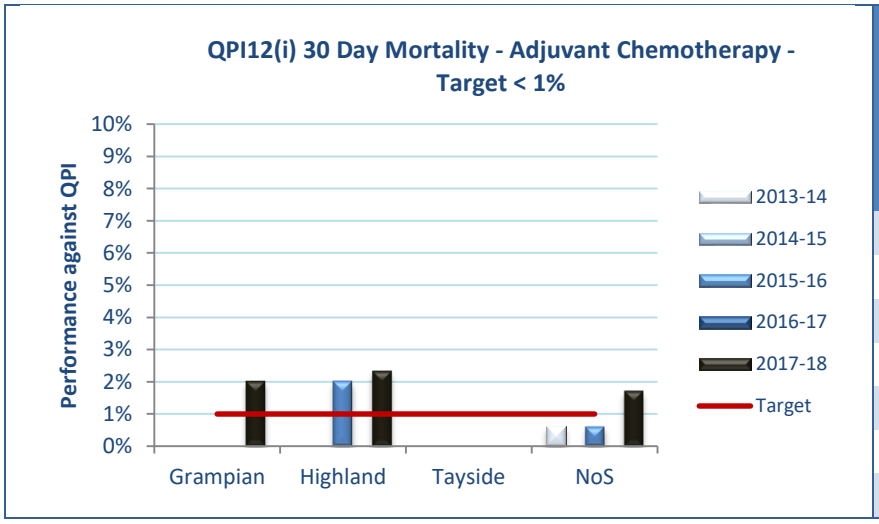

| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **47.6%** | 10 | 21 |
| Highland | **77.8%** | 7 | 9 |
| Orkney* | - | - | - |
| Shetland | - | 0 | 0 |
| Tayside | **50.0%** | 4 | 8 |
| W Isles | - | 0 | 0 |
| NoS | **53.8%** | **21** | **39** |

| | |
|---|---|
| **Clinical Commentary** | NHS Grampian did not reach the target (ii) by 2.4%. The patient received chemoradiotherapy which does not comply with the current standard. |
| **Actions** | No actions identified |
| **Risk Status** | Tolerate |

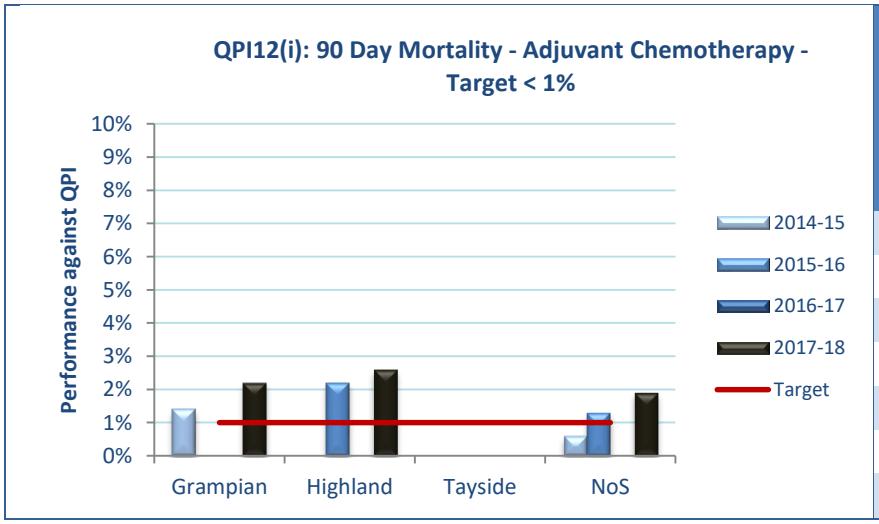
| QPI 12 | 30 and 90 Day Mortality Following Chemotherapy or Radiotherapy |
|---|---|
| Proportion of patients with colorectal cancer who die within 30 or 90 days of chemotherapy or radiotherapy treatment. | |



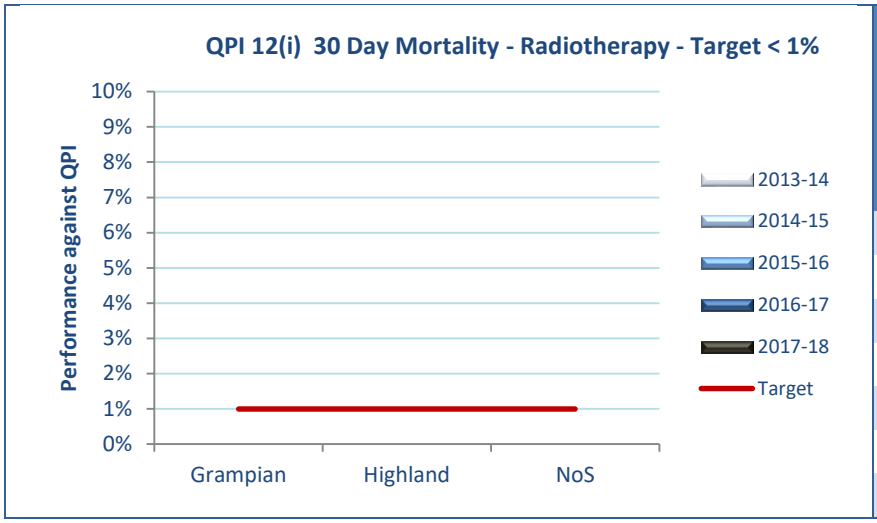

| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **0%** | 0 | 32 |
| Highland | **0%** | 0 | 14 |
| Orkney | - | 0 | 0 |
| Shetland* | - | - | - |
| Tayside | **0%** | 0 | 16 |
| W Isles* | - | - | - |
| NoS | **0%** | **0** | **65** |



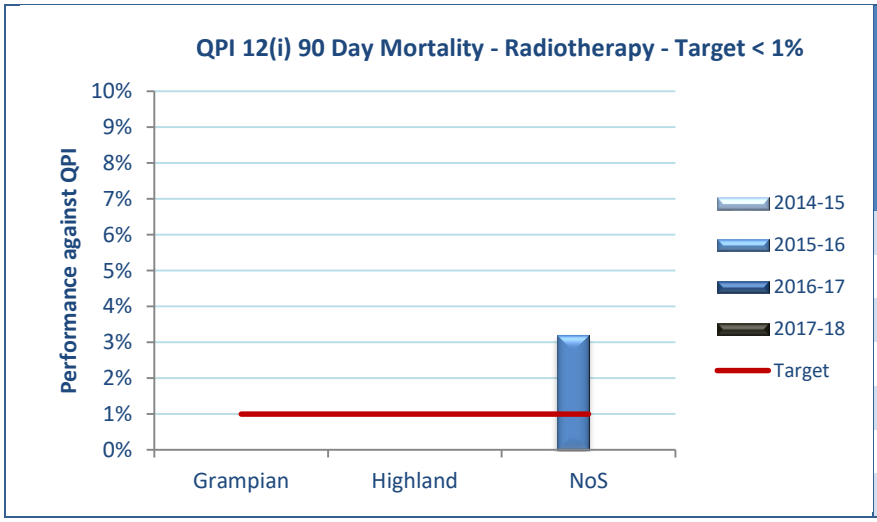

| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **2.0%** | 1 | 50 |
| Highland | **2.3%** | 1 | 44 |
| Orkney* | - | - | - |
| Shetland* | - | - | - |
| Tayside | **0%** | 0 | 13 |
| W Isles* | - | - | - |
| NoS | **1.8%** | **2** | **113** |



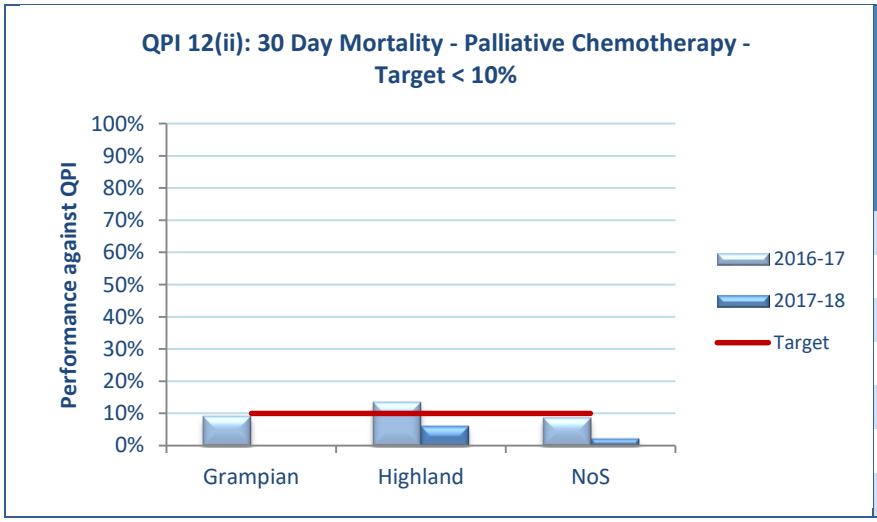

| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **2.2%** | 1 | 46 |
| Highland | **2.6%** | 1 | 39 |
| Orkney* | - | - | - |
| Shetland* | - | - | - |
| Tayside | **0%** | 0 | 12 |
| W Isles* | - | - | - |
| NoS | **1.9%** | **2** | **103** |




| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **0%** | 0 | 18 |
| Highland | **0%** | 0 | 7 |
| Orkney* | - | - | - |
| Shetland | - | 0 | 0 |
| Tayside* | - | - | - |
| W Isles | - | 0 | 0 |
| NoS | **0%** | **0** | **29** |



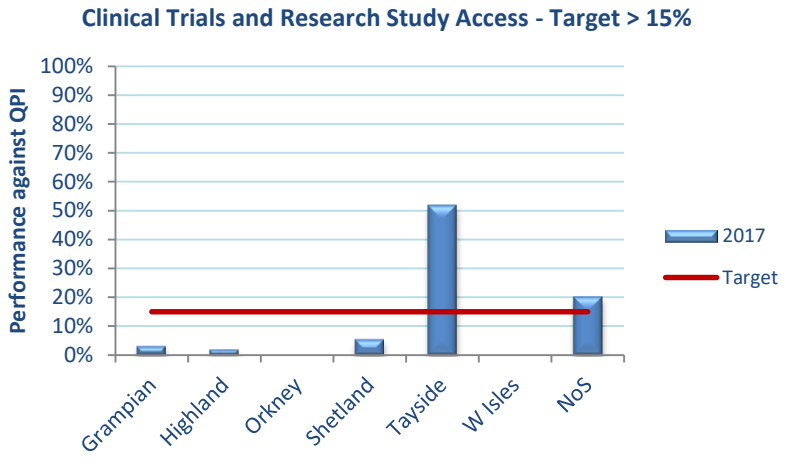

| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **0%** | 0 | 18 |
| Highland | **0%** | 0 | 7 |
| Orkney* | - | - | - |
| Shetland | - | 0 | 0 |
| Tayside* | - | - | - |
| W Isles | - | 0 | 0 |
| NoS | **0%** | **0** | **29** |




| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **0%** | 0 | 20 |
| Highland | **5.9%** | 1 | 17 |
| Orkney* | - | - | - |
| Shetland* | - | - | - |
| Tayside* | - | - | - |
| W Isles* | - | - | - |
| NoS | **2.3%** | **1** | **44** |

| | |
|---|---|
| **Clinical Commentary** | 3 patients across the North of Scotland died within 30 or 90 days of chemotherapy/radiotherapy. Due to the small numbers of patients included in the indicators, outcomes of very small numbers of patients can result in targets not being met due to chance. The deaths of these patients have been clinically reviewed and no concerning trends in mortality have been observed. |
| **Actions** | No actions identified |
| **Risk Status** | |

| Clinical Trial and Research Study Access QPI |
|---|
| Proportion of patients with colorectal cancer who are consented for a clinical trial / translational research. Data reported for patients enrolled in 2017. |




| | Performance (%) | Numerator | Denominator |
|---|---|---|---|
| Grampian | **3.2%** | 11 | 346 |
| Highland | **1.9%** | 4 | 210 |
| Orkney | **0%** | 0 | 10 |
| Shetland | **5.5%** | 1 | 18 |
| Tayside | **51.7%** | 172 | 333 |
| W Isles | **0%** | 0 | 21 |
| NoS | **20.2%** | **189** | **938** |

| | |
|---|---|
| **Clinical Commentary** | |
| **Actions** | All clinicians should consider opening relevant clinical trials in their tumour areas. When this is not possible patient referrals to other sites for access to clinical trials should be considered. |
| **Risk Status** | Tolerate |

**References**


1. Information Services Division. Cancer in Scotland, April 2018. http://www.isdscotland.org/Health-Topics/Cancer/Publications/2018-04-24/Cancer_in_Scotland_summary_m.pdf

2. NHS National Services Scotland. Cancer Survival in Scotland, 1987-2011. 2015. https://isdscotland.scot.nhs.uk/Health-Topics/Cancer/Publications/2015-03-03/2015-03-03-CancerSurvival-Report.pdf

3. Scottish Cancer Taskforce, 2017. Colorectal Cancer Clinical Performance Indicators, Version 3.0. Health Improvement Scotland. http://www.healthcareimprovementscotland.org/his/idoc.ashx?docid=f399d719-8597-48f6-999a-1e248d5ab6aa&version=-1

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

5. https://www.nrhcc.scot/uploads/tinymce/NCA/NCA%20Governance/NCA-GOV-QPI-Process-Explained.pdf


**Appendix 1: Clinical Trials and Research studies for colorectal cancer open to recruitment in the North of Scotland in 2017**

| Trial | Principle Investigator | Patients consented |
|---|---|---|
| Stratifying risk of colorectal disease in symptomatic patients | Robert Steele (NHS Tayside) | yes |
| Scottish Colorectal Cancer Genetic Susceptibility study 3 (SOCCS3) | (NHS Tayside) | yes |
| Aristotle | Leslie Samuel (NHS Highland and NHS Grampian) | yes |
| FOCUS 4 | Leslie Samuel (NHS Highland and NHS Grampian) | yes |
| IMPALA | Leslie Samuel (NHS Grampian) | yes |
| Keynote 177: A Phase III Study of Pembrolizumab vs. Chemotherapy in MSI-H or dMMR S | Leslie Samuel (NHS Grampian) | yes |
| ADD ASPIRIN | Douglas Adamson (NHS Tayside) | yes |
| STAR-TReC | (NHS Tayside) | no |
| InterAACT - A Multicentre Randomised Phase II Advanced Anal Cancer Trial | Leslie Samuel (NHS Grampian) | no |
| NCRN - 3131: EPOCH TheraSphere in Metastatic Colorectal Carcinoma of the Liver (TS102) | Leslie Samuel (NHS Grampian) | no |
| COGS2 | Zosia Miedzybrodzka (NHS Grampian) | no |