NBOCA | National Bowel Cancer Audit

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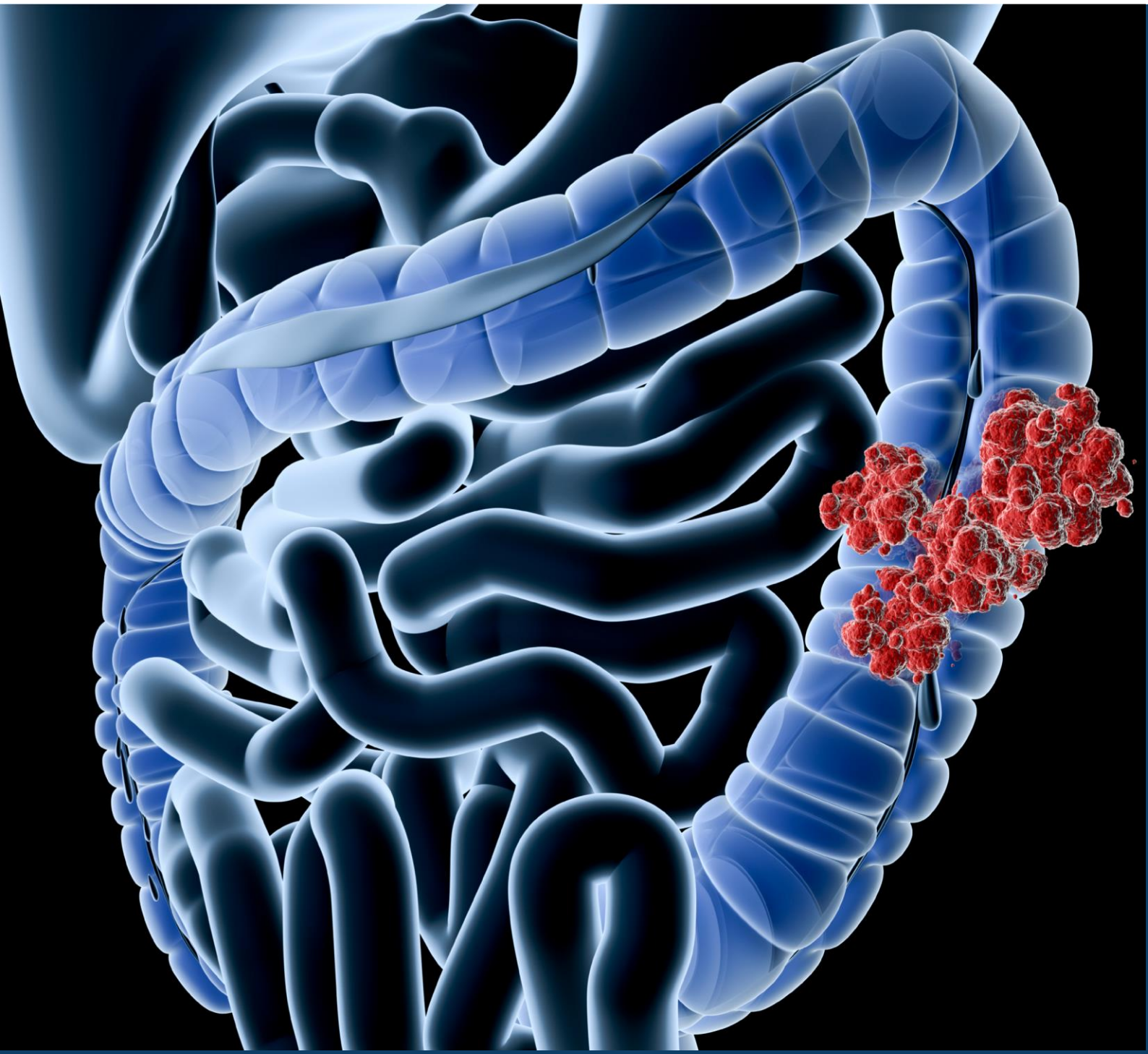
Quality Improvement Plan



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Prepared in partnership with:

The Association of Coloproctology of Great Britain and Ireland (ACPGBI) is the professional body that represents UK colorectal surgeons.

The Royal College of Surgeons of England is an independent professional body committed to enabling surgeons to achieve and maintain the highest standards of surgical practice and patient care.

The Healthcare Quality Improvement Partnership (HQIP) is led by a consortium of the Academy of Medical Royal Colleges, the Royal College of Nursing and National Voices. Its aim is to promote quality improvement in outcome review programmes and registries have on healthcare quality in England and Wales. HQIP holds the contract to commission, manage and develop the National Clinical Audit and Patient Outcomes Programme (NCAPOP), comprising around 40 projects covering care provided to people with a wide range of medical, surgical and mental health conditions. The programme is funded by NHS England, the Welsh Government and, with some individual projects, other devolved administrations and crown dependencies

www.hqip.org.uk/nation-programmes

Introduction

The National Bowel Cancer Audit (NBOCA) was established to evaluate the quality and outcomes of care for patients diagnosed for the first time with bowel cancer in NHS hospitals in England and Wales, and so support colorectal units in the UK to improve the quality of the care received by patients.

Since 2015 the scope of the Audit has been broadened:

- Wider to explore management and outcomes across all patients with colorectal cancer, not just those undergoing surgery
- Earlier in the patient pathway to how and where patients were diagnosed, and their stage at diagnosis
- Later in the patient pathway to longer-term outcomes and treatments, and care at the end of life.

Each year, the Audit produces a number of outputs aimed at stimulating quality improvement (QI). Foremost among these is the Annual Report that contains a series of recommendations for NHS colorectal units and other stakeholders. The Audit feeds back individual trust/hospital/ MDT results via the Annual Report and via interactive pages on the audit's website – www.nboca.org.uk, including site-specific reports on performance at www.nboca.org. uk/trust-results. A summary of the performance indicators measured is available at www.nboca.org.uk/resources/ performance-indicators-description. The most recent NBOCA report was released in February 2024 and can be found on the website.

The National Bowel Cancer Audit is commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP). The programme is funded by NHS England, the Welsh Government and, for some individual projects, by other devolved administrations and crown dependencies: www.hqip.org.uk .

Colorectal cancer care and outcomes

Recommendations on the delivery of high-quality care by bowel cancer services have been published by NICE in its guideline on the management of colorectal cancer[1] and by professional medical associations[2]. Service development is also informed by the strategies published by NHS England[3] and NHS Wales[4].

Recent NBOCA annual reports have revealed various improvements in the quality of care delivered to patients with bowel cancer, including that patients' chances of surviving major resection have improved significantly over the last 5 years.

Areas of concern highlighted in the 2020 Annual Report include:

- 20% of patients presented as an emergency with bowel cancer
- Regional and institutional variation in the proportion of patients presenting with stage 1 or 2 disease
- Wide institutional variation in the use of neoadjuvant radiotherapy for rectal cancer patients
- Wide institutional variation in the administration of adjuvant chemotherapy
- Institutional variation in adjusted 2-year survival after major surgery
- 28% of trusts/hospitals/MDTs carried out less than 20 rectal resections per year
- Nearly 30% of diverting ileostomies unclosed at 18 months, with wide institutional variation

Improvement goals

NBOCA has set out a quality improvement targeted at two key aspects of colorectal cancer care:

1. Improving Patient Experience
2. Improving Cancer Outcomes

Figure 1 provides an overview of the NBOCA QI Plan. The aim is to involve all members of the multidisciplinary clinical team managing patients with colorectal cancer, covering all areas of the patient pathway, from diagnosis and perioperative care to adjuvant and neoadjuvant oncological management, stage IV disease and end of life care. NBOCA will be responsible for providing trusts/hospitals/MDTs with relevant metrics across the patient pathway.

For each metric a national and a mirrored local MDT QI target will be set. All trusts/hospitals/MDTs will be expected to adopt local QI strategies in two to three areas where they have poor performance. Trusts/hospitals/MDTs excelling in all areas will be expected to adopt local QI strategies in two areas where they believe improvement may still be made.

Each year 10 metrics will be reported on in the annual State of the Nation Report.

Figure 1
Overview of the NBOCA QI Plan

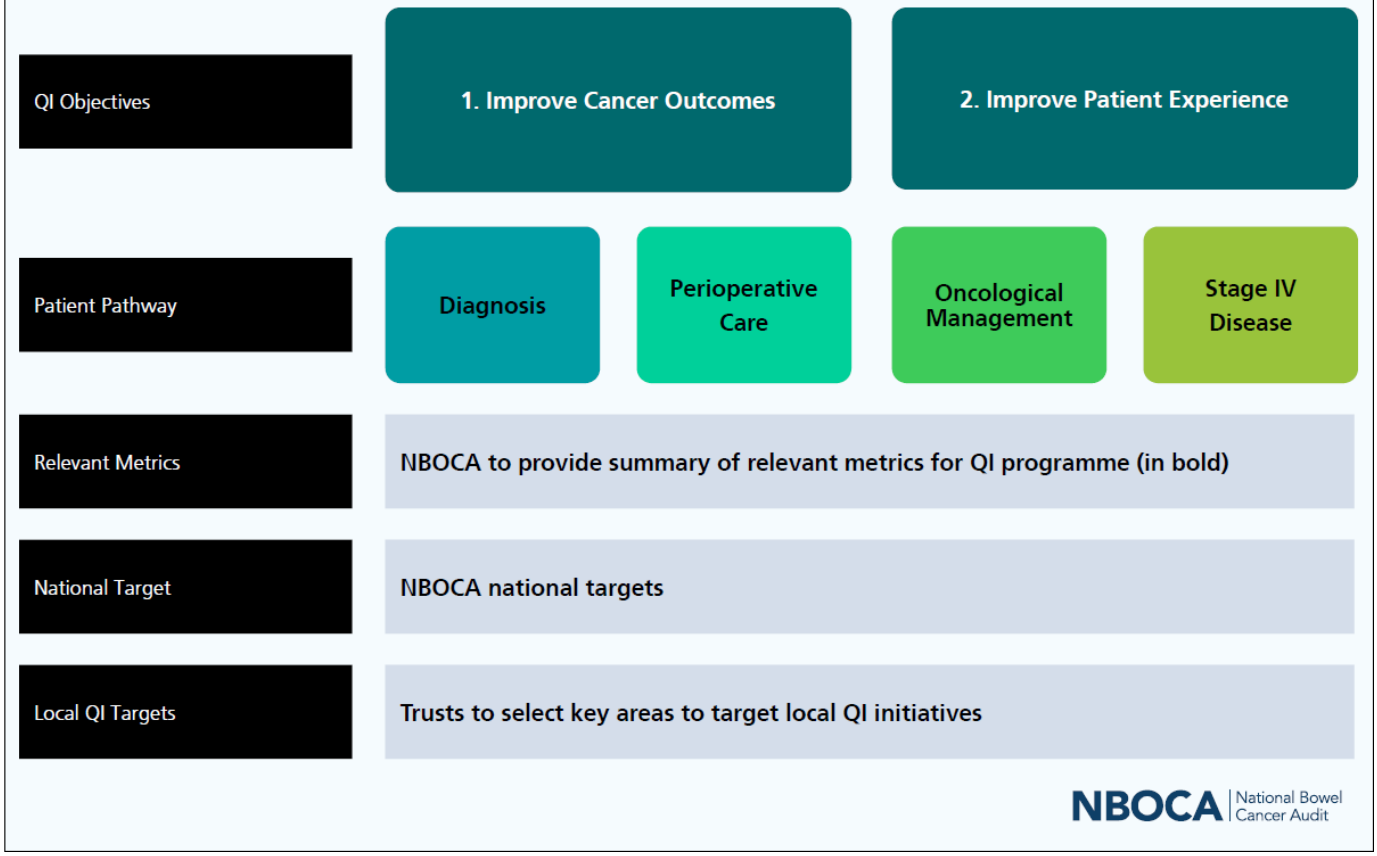
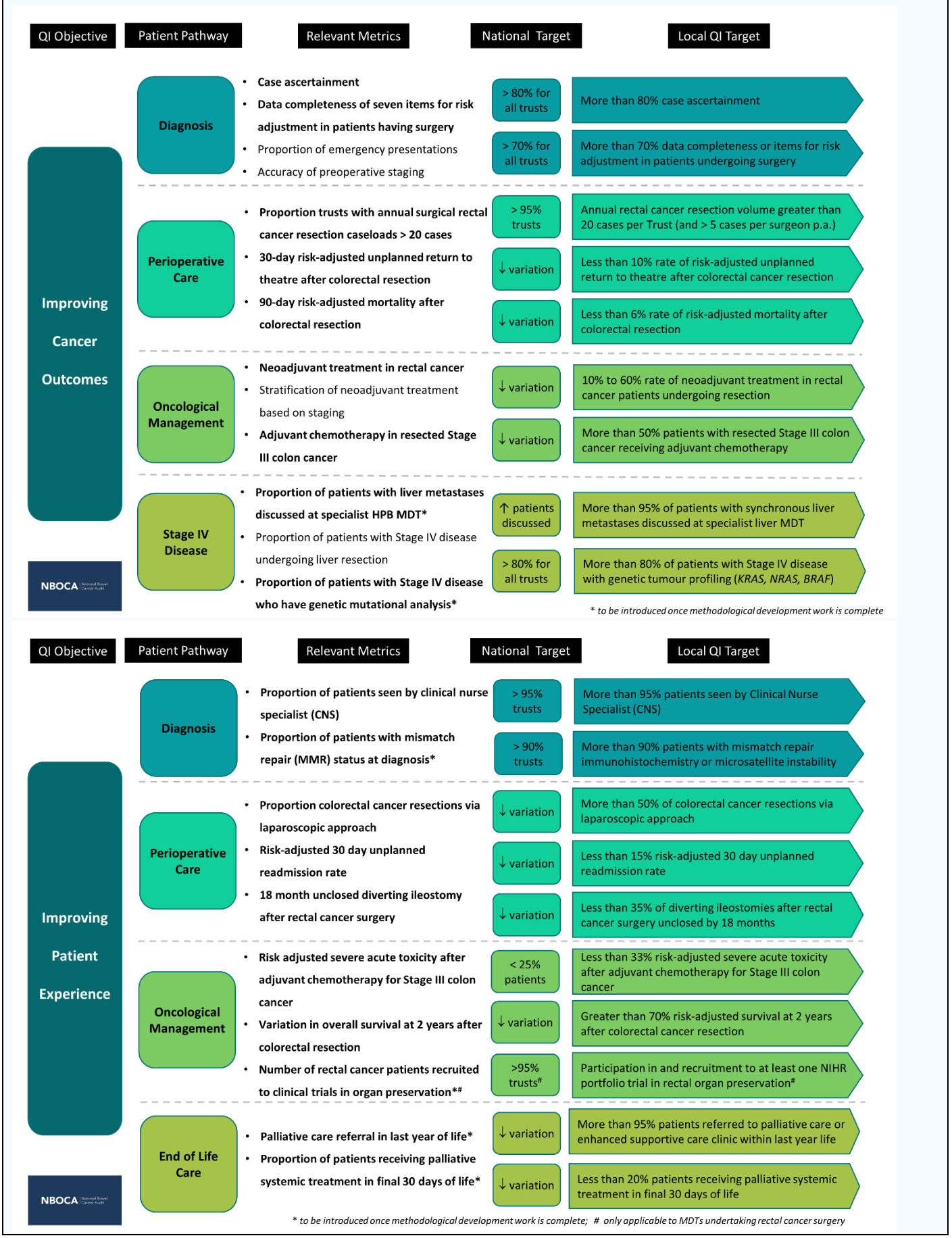


Figure 2 overleaf sets out key drivers of each objective across all areas of the patient pathway. The metrics highlighted in bold have been prioritised, and for each of these the diagram shows both a national and a mirrored local MDT QI target. The metrics also cover all five of the domains used by the CQC for assessing quality of care[5]:

- Well-led: the leadership, management and governance of the organisation make sure it's providing high quality care that's based around your individual needs, that it encourages learning and innovation, and that it promotes an open and fair culture.
- Responsive: services are organised so that they meet your needs.
- Caring: staff involve and treat you with compassion, kindness, dignity and respect.
- Effective: your care, treatment and support achieves good outcomes, helps you to maintain quality of life and is based on the best available evidence.
- Safe: you are protected from abuse and avoidable harm.

The target rates have been chosen to shift the poorly performing trusts/hospitals/MDTs closer towards the average, thereby reducing trust/hospital/MDT variation whilst maintaining or improving performance overall. The targets are all based on current performance and are strategically set to encourage targeted reforms in the lowest quintile of performance. Likewise, if MDTs are achieving all institutional level QI targets, they can still identify targets for further improving their performance.

Figure 2
Key drivers and targets for the NBOCA QI Programme



National level QI targets

The current national level QI targets are summarised below, according to the five CQC domains:

Well-led:

1. All trusts/hospitals/MDTs with >80% case ascertainment
2. All trusts/hospitals/MDTs with >70% data completeness of seven items for risk adjustment in patients having surgery
3. >95% of trusts/hospitals/MDTs undertaking rectal cancer surgery to participate in and recruit to at least one NIHR portfolio trial in rectal organ preservation

Responsive:

4. >95% of trusts/hospitals/MDTs with annual surgical rectal cancer resection caseloads of more than 20 patients
5. Increase proportion of patients with synchronous liver metastases at time of diagnosis with colorectal cancer discussed at specialist liver MDT*
6. All trusts/hospitals/MDTs with >80% of patients with Stage IV disease with genetic tumour profiling (KRAS, NRAS, BRAF)*
7. All trusts/hospitals/MDTs with >90% patients with mismatch repair immunohistochemistry or microsatellite instability*

Caring:

8. All trusts/hospitals/MDTs with >95% of colorectal cancer patients seen by Clinical Nurse Specialist (CNS)

Effective:

Reduce variation between trusts/hospitals/MDTs in:

9. risk-adjusted unplanned return to theatre after colorectal cancer resection
10. rates of neoadjuvant treatment in rectal cancer patients undergoing resection
11. rates of adjuvant chemotherapy after colon cancer resection
12. severe acute toxicity after adjuvant chemotherapy for Stage III colon cancer
13. colorectal cancer operations via laparoscopic approach
14. risk-adjusted 30 day unplanned readmission rates after colorectal cancer resection
15. rates of diverting ileostomies after rectal cancer surgery unclosed by 18 months
16. risk-adjusted survival at 2 years after colorectal cancer resection
17. patients referred to palliative care or enhanced supportive care clinic in last year of life*
18. patients receiving palliative systemic treatment in final 30 days of life*

Safe:

19. Reduce variation between trusts/hospitals/MDTs in risk adjusted mortality after colorectal cancer resection

Local QI targets

The local QI targets selected to deliver on the national targets are:

1. >80% case ascertainment
2. >70% data completeness of seven items for risk adjustment in patients having surgery
3. Participation in and recruitment to at least one NIHR portfolio trial in rectal organ preservation
4. Annual surgical rectal cancer resection caseload of more than 20 patients
5. >95% of patients with synchronous liver metastases discussed at specialist liver MDT*
6. >80% patients with Stage IV disease with genetic tumour profiling (KRAS, NRAS, BRAF)*
7. >90% patients with mismatch repair immunohistochemistry or microsatellite instability*
8. >95% colorectal cancer patients seen by Clinical Nurse Specialist (CNS)
9. <10% risk-adjusted unplanned return to theatre after colorectal cancer resection
10. 10% to 60% rate of neoadjuvant treatment in rectal cancer patients undergoing resection
11. >50% rate of adjuvant chemotherapy after colon cancer resection
12. <33% risk-adjusted severe acute toxicity after adjuvant chemotherapy for Stage III colon cancer
13. >50% colorectal cancer operations via laparoscopic approach
14. <15% risk-adjusted 30 day unplanned readmission rates after colorectal cancer resection
15. <35% diverting ileostomies after rectal cancer surgery unclosed by 18 months
16. >70% risk-adjusted survival at 2 years after colorectal cancer resection
17. >95% patients referred to palliative care or enhanced supportive care clinic in last year of life*
18. <20% patients receiving palliative systemic treatment in final 30 days of life*
19. <6% risk-adjusted mortality after colorectal cancer resection

**New NBOCA indicators which will be introduced once methodological development work is completed*

NBOCA will be responsible for providing trusts/hospitals/ MDTs with the relevant metrics. Trusts/hospitals/MDTs should also monitor their own data on the relevant metrics, particularly data not available to NBOCA. NBOCA does not currently have accurate data to report the proportion of patients diagnosed with synchronous liver metastases discussed at specialist liver MDT (QI target 5). Until accurate data is available, NBOCA will assess the impact of QI target 5 by reporting the proportion of patients with stage 4 disease undergoing liver resection.

Other relevant metrics will be adopted into the QI programme in future in order to cover all areas of the patient pathway. The QI targets are aimed at different specialties of clinician to encourage all members of the multidisciplinary team to engage in QI initiatives.

The QI targets listed provide a set of high-level objectives. Alongside these, NBOCA will continue to highlight, and make recommendations on, issues that are identified during the audit cycles.

Improvement methods

This section focuses on the direct activities that NBOCA undertakes to support organisations at the national, regional and local levels undertake quality improvement. Supporting these efforts the Audit undertakes work:

- On methodological development, that ensures performance indicators used by the Audit are clinically relevant and methodologically robust. We also undertake work to strengthen our analytical approaches (to handling missing and erroneous data, data linkage errors, differences in case mix) as well as for detecting units with outlying (worse than expected) performance.
- To better understand the determinants of variation in the treatment of patients with bowel cancer and the outcomes they experience.

This supporting work aims to strengthen the confidence that all stakeholders have in the Audit's outputs and thereby to enhance the Audit's potential to stimulate benchmarking and QI.

NBOCA undertakes various activities that directly support national stakeholders and regional NHS organisations to tackle system-wide aspects related to the delivery of quality bowel cancer services. NBOCA will feed back to trusts/ hospitals/MDTs the metrics listed above in the QI targets to support their QI strategies. This feedback will be through the annual report, the interactive trust results pages of the NBOCA website, and the National Clinical Audit Benchmaking Website (ncab.hqip.org.uk/). The same QI metrics will be reported in the inspection slide packs used by the Care Quality Commission. The other NBOCA activities which support QI include:

Stakeholder	NBOCA activity
NATIONAL LEVEL	
NHS England / Welsh Cancer Network	Identify issues and make recommendations on the organisation and delivery of bowel cancer services which might involve large-scale investment, national leadership or service reorganisation
Care Quality Commission and Peer Review	Providing CQC with information to support local inspections of NHS trusts/hospitals/MDTs and highlighting areas of concern identified after an organisation is identified as an "outlier" on an NBOCA indicator. NBOCA also provides trust results to CQC for its inspection slide packs. From now on the metrics in the slide packs will correspond to the QI targets listed above.
Professional societies	Identify issues and make recommendations regarding the delivery of bowel cancer services that fall within the remit of the professional associations
NHS Improvement's Getting it Right First Time (GIRFT)	NBOCA regularly provides data to GIRFT for its national programme designed to improve medical care within the NHS by reducing unwarranted variations in the way services are delivered across the NHS
National Clinical Improvement Programme (NCIP)	NBOCA has supported the work of NCIP to provide a secure online portal for clinicians to support their personal development and learning
The National Clinical Audit Benchmarking (NCAB) project	NBOCA regularly provides trust/hospital/MDT-level results to be included in the NCAB project. From now on the metrics published by NCAB for NBOCA will correspond to the QI targets listed above.
Short reports	These enable a detailed evaluation of a specific topic in more depth than is possible within the Annual Report, with findings that aim to stimulate quality improvement or improve the methodology used by the Audit.
REGIONAL LEVEL	
Cancer Networks / Alliances / Vanguards	Support monitoring role of Welsh Cancer Networks and the English Cancer Alliances / Vanguards by publishing results for their area and at their level.
Pelican IMPACT QI Programme	NBOCA work on advanced bowel cancer led to the Pelican IMPACT Quality Improvement Programme in collaboration with ACPGBI, which has been running regional QI workshops on advanced colorectal cancer since 2018.
LOCAL LEVEL	
Feedback activity	**Description**
Annual Report	State of the Nation report that enables institutions to benchmark themselves against clinical guideline recommendations and the performance of their peers
Interactive online result pages	Webpages that present trust/hospital/MDT services and trust level results on the performance of the provider for different aspects of the care pathway, compared to previous years and to their local Cancer Alliance and National results.
Downloadable trust reports	Downloadable reports with the Audit's results for individual providers compared to their local Cancer Alliance and National results
Bespoke Trust slide sets summarising Annual Report results	A slide set that institutions with their own figures so that they can present their results at local staff meetings.
LOCAL LEVEL	
Feedback activity	**Description**
Local Action Plan templates	Templates that allow institutions to document how they will respond to the Annual Report recommendations
Clinical Outcomes Publication and NHS Choices	Comparative consultant and trust/hospital-level results are published on the ACPGBI website each year.
Quarterly reports	A report that describes patterns of care on a quarterly basis over a three year period.
Data downloads	Institutions can download their submitted data from the Audit IT system for their own internal analysis.
IT system real-time reports	Tables of activity and outcomes that are generated within the Audit IT system that give an institution an up-to-date view of their performance.

Improvement tools

The NBOCA website directs healthcare providers to various QI tools, including links to various quality improvement pages on the Royal College of Surgeons website and other web-based material. These can be found at https://www.nboca.org.uk/resources/quality-improvement-resources/ and include:

- Introduction to quality improvement published by the Health Foundation
- Help with how to put clinical guidance into practice published by NICE
- Guides to service improvement published by NHS Improvement
- Descriptions of QI tools produced by the Institute for Healthcare Improvement that covers:
  - Cause and Effect Diagrams, Driver Diagrams
  - Run Charts and Control Charts
  - Plan-Do-Study-Act process to improvement
- Links to other providers' QI resources, such as HQIP and East London Foundation Trust
- QI case studies on bowel cancer (to be added)

Quality Improvement workshops / collaboratives

Each year NBOCA will run a QI workshop at the ACPGBI Annual Meeting, aiming to stimulate the use of the Audit's output for a range of quality improvement activities. Each workshop will focus on a particular activity of the Audit, including for example the Audit's communication with providers that are potential outliers according to the Audit's performance indicators, the results of the organisational surveys, the Audit's findings on the ongoing implementation of new diagnostic and treatment modalities.

NBOCA will seek to develop closer links with NHS improvement groups, Cancer alliances and vanguards and work with them on how to:

- Support local colorectal services to develop local improvement plans.
- Share examples of good practice
- Evolve the methods of feedback used by NBOCA.

Patient and public involvement

Patient and carer representatives are regularly consulted on the design of the audit and the communication of its results. NBOCA has a Patient and Carer Panel and patient and Bowel Cancer UK representatives sit on the Clinical Advisory Group to advise on audit priorities, the content and presentation of the Annual report, and the patient report. Both of these groups:

- Provide advice on the design / function of its website to ensure that patients and the public can easily search for a NHS provider / surgeon and see their results
- Contribute to the design / content of the NBOCA Annual report and its patient version
- Publish items written by the NBOCA team in the organisation newsletter

Dissemination of results and communications

NBOCA communicates regularly with stakeholders, providers, patients and the public in the following ways:

- Regular distribution of newsletters
- Contribution of items for newsletters created by medical associations, patient associations
- Presentation of audit results at national conferences
- Publication of articles in medical journals and other media
- Announcements on its website and through its Twitter feed.

Evaluation

The Audit will review the impact of its quality improvement plan at national level during the bi-annual meetings of its Clinical Advisory Group. Results of this evaluation will also be reported to the Audit's Project Board.

This document was published in December 2021. Minor updates were made 7 February 2024. The next update is due by July 2024.

[1] *National Institute for Health and Care Excellence. Colorectal cancer: diagnosis and management (NICE guideline CG131). 2020. https://www.nice.org.uk/guidance/ng151*

[2] *The Association of Coloproctology of Great Britain and Ireland. Guidelines for the management of cancer of the colon, rectum and anus. 2017. https://www.acpgbi.org.uk/resources/guidelinesmanagement-cancer-colon-rectum-anus-2017/*

[3] *NHS England. Cancer Strategy Implementation Plan. https://www.england.nhs.uk/cancer/strategy/*

[4] *NHS Wales. 1000 lives. http://www.1000livesplus.wales.nhs.uk/home*

[5] *Care Quality Commission: The five key questions we ask. https://www.cqc.org.uk/what-we-do/ how-we-do-our-job/five-key-questions-we-ask*