NBOCA | National Bowel Cancer Audit

NATCAN National Cancer Audit Collaborating Centre

State of the Nation Report

Summary of findings for the public and patients

Published 8 February 2024.

Royal College of Surgeons of England

NHS Digital

HQIP Healthcare Quality Improvement Partnership

What is the National Bowel Cancer Audit (NBOCA)?

The National Bowel Cancer Audit (NBOCA) measures the care and outcomes for patients diagnosed with bowel cancer in England and Wales. Bowel cancer is the 4th most common cancer in the UK. NBOCA aims to improve patient care by highlighting areas where improvements might be made.

What is this report about?

This report is a summary of the main findings and recommendations in the NBOCA State of the Nation report. Most results are about patients diagnosed and treated for bowel cancer between 1 April 2021 and 31 March 2022. The emphasis is on evaluating changes in care and outcomes over time. This report was produced in collaboration with the NBOCA Patient and Public Involvement Forum, who represent and support the rights and interests of patients.

Main report page 6

How does NBOCA improve the quality of care for people with bowel cancer?

The NBOCA Quality Improvement (QI) Programme launched in 2021. The aim of the programme is to support hospitals in the England and Wales improve the quality of the care received by patients with bowel cancer. NBOCA sets 10 QI targets for hospitals to meet. After describing how people with bowel cancer were diagnosed, the rest of the chapters in this report cover each of the 10 QI targets under the headings **Diagnosis, Surgery** and **Chemotherapy* and Radiotherapy*.** You can also access the results of the 10 QI targets for individual hospital trust via interactive pages on the NBOCA website here.

What's new?

In 2023, NBOCA moved into the National Cancer Audit Collaborating Centre (NATCAN). NATCAN aims to drive improvements in detection, treatment, and outcomes for patients diagnosed with cancer. This report is the final report to use data collected directly by NBOCA from English and Welsh hospitals. Future reports will use cancer registry data collected centrally by the NHS. Further information about the move into NATCAN can be found here.

Where can I find more information?

There are many different NBOCA resources which can be accessed via the website.

All annual and patient reports
Individual hospital trust results
Published scientific papers
Quality improvement resources

Follow us on X @NBOCA_CEU or NBOCA News to keep up to date with NBOCA and our work. Contact us online here or at nboca@rcseng.ac.uk.

An explanation of key terms used in this report can be found on page 7. These terms are marked with an asterisk (*) throughout this report.

Find out more

For general information about bowel cancer, and how patient information is used to improve outcomes, please visit the following websites.

General information about bowel cancer

- Bowel Cancer UK
- Bowel Research UK
- NHS Bowel Cancer Screening Programme – England
- Bowel Screening Wales
- Cancer Research UK
- NHS Choices
- Macmillan

How patient information is used to improve outcomes

- use MY data

Main report page 4

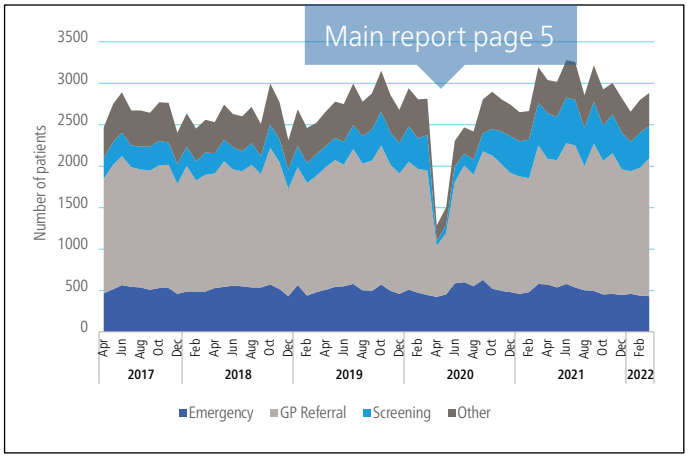
Key messages

- The Quality Improvement target met by the lowest number of hospitals remains 'Patients seen by clinical nurse specialist', with only 37% of hospitals meeting this target. Hospitals should take action to address this important component of patient care.
- The proportion of patients with an unclosed temporary stoma* 18-months after anterior resection* has not seen an improvement, with 44% of hospitals not meeting the QI target. Nationwide 39% of patients do not have their temporary stoma closed within 18 months. With emerging evidence of the negative impact of unclosed temporary stoma on quality of life, this is a key focus area for future local and national quality improvement initiatives.
- There is variation in the use of adjuvant chemotherapy* for stage* 3 colon cancer between hospitals. Hospitals should monitor and investigate variation in the use of adjuvant chemotherapy and ensure evidence-based chemotherapy policies are in place.
- Nationwide, 22% of patients experience severe acute toxicity* following adjuvant chemotherapy for stage 3 colon cancer. This varied widely between hospitals from 0% to 38%. We recommend that cancer alliances* monitor and investigate hospital variation in severe acute toxicity after adjuvant chemotherapy.

How were people with bowel cancer diagnosed?

At the start of the COVID-19 pandemic, the number of patients diagnosed with bowel cancer reduced considerably. By October 2020, the number of diagnoses returned to pre-pandemic levels and continued to rise. The total number of patients diagnosed with bowel cancer in England and Wales between 1 April 2021 and 31 March 2022 was 35,779. Since 2015, the number of patients diagnosed through bowel cancer screening* tests has steadily increased. There was a temporary reduction during the first wave of the COVID-19 pandemic when the NHS Bowel Cancer Screening Programme was paused locally.

Main report page 5

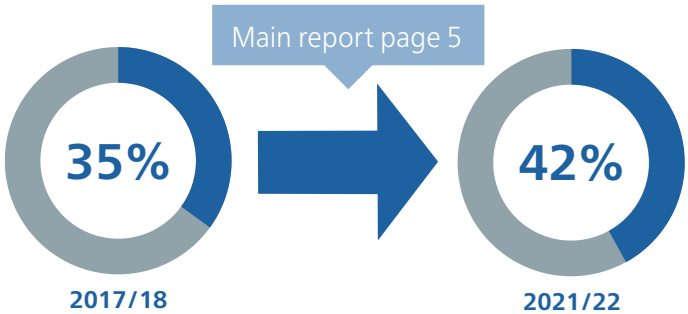


NHS bowel cancer screening checks if you could have bowel cancer. It's available to everyone aged 60 to 74 years in England and 51 to 74 years in Wales. Screening can help prevent bowel cancer or find it at an early stage when it's easier to treat. Click here to find out more if you live in England and here if you live in Wales.

What percentage of people presented with Stage* 1 or 2 bowel cancer?

A key target of the NHS Long Term Plan is that by 2028, 75% of patients with cancer will be diagnosed with stage 1 or 2 cancer (cancer has not spread to nearby lymph nodes/glands or other parts of the body). The detection of earlier, more treatable cancer is also a focus of the Quality Statement for Cancer in Wales. The percentage of patients diagnosed with stage 1 or 2 bowel cancer has increased steadily from 35% in 2017/18 to 42% in 2021/22.

Main report page 5



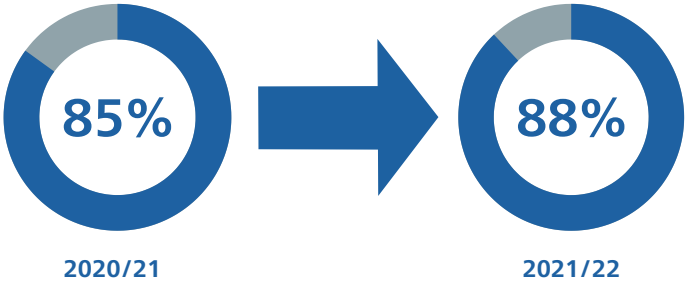
Increase in the proportion of patients presenting with stage 1or 2 bowel cancer

Main report page 7

DIAGNOSIS

Target 1: More than 95% of patients seen by a Clinical Nurse Specialist (CNS).

Improved ✔
It is recommended that all patients with bowel cancer meet a CNS for advice and support. Nationwide, 88% of patients with bowel cancer were seen by a CNS. Only 37% of hospitals met the target of more than 95% of patients being seen by a CNS. Of the 10 Quality Improvement (QI) targets, this is the target with the lowest percentage of hospitals meeting it.



Increase in the proportion of patients seen by a clinical nurse specialist

SURGERY

Main report page 8

Target 2: Hospitals to perform 20 or more major rectal cancer operations per year.

Minimal change
Rectal cancer surgery is complex, so guidelines recommend hospitals perform 20 or more major operations per year. In 2021/22, 68% of hospitals performed 20 or more rectal cancer operations. This is similar compared to 71% in 2019/20.

71% in 2019/20

to

68% in 2021/22

% of hospitals that perform 20 or more major rectal cancer operations per year

Target 3: Less than 6% 90-day mortality after major bowel cancer surgery.

Improved ✔
The proportion of patients who die within 90-days of major bowel cancer surgery has gradually decreased over time from 3.1% in 2017/18 to 2.4% in 2021/22.

3.1% in 2017/18

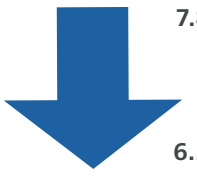
to

2.4% in 2021/22

% of patients who died within 90 days of surgery

Target 4: Less than 10% 30-day return to theatre after major bowel cancer surgery.

Improved ✔
The proportion of patients who needed to return to the operating theatre within 30 days of their bowel cancer surgery due to a complication has reduced over time.



7.8% in 2017/18

to

6.3% in 2021/22

% of patients with an unplanned 30-day return to theatre after surgery

Target 5: Less than 15% 30-day unplanned readmission.

Minimal change
The proportion of patients who needed to return to hospital in an emergency within 30 days of their bowel cancer operation has remained stable over the last 5 years.

10.8% in 2017/18

to

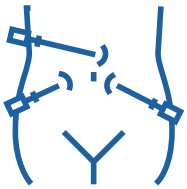
10.9% in 2021/22

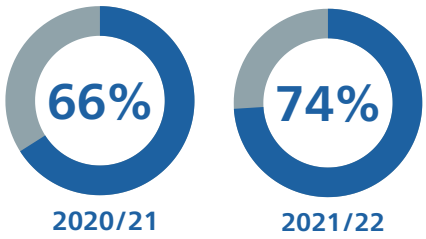
% of patients with an unplanned 30-day readmission after surgery

Main report page 9

Laparoscopic* "keyhole" surgery in major bowel cancer operations.

There is increasing evidence that keyhole surgery can improve outcomes for patients with bowel cancer. During the COVID-19 pandemic there was a temporary decrease in keyhole surgery. In 2021/22, 74% of patients underwent keyhole surgery compared to 66% in 2020/21.





% of patients undergoing major colorectal cancer surgery with a laparascopic approach

Rectal Cancer

Main report page 10

Bowel cancer involves the large bowel, which is made up of the colon and rectum. Cancer of the colon and rectum are treated differently. In recent years, the number of patients with rectal cancer having major surgery has decreased. This is due to increased use of "local excision"* techniques than can remove early-stage cancer and "neo-adjuvant"* chemotherapy* and radiotherapy* which can, in some cases, cure cancer without surgery.

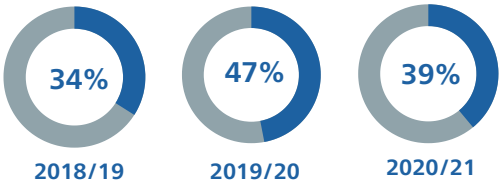
An "anterior resection"* is a type of major surgery that removes the rectum. Some patients have a stoma at the time of the surgery and some of these are temporary. The proportion of people that have a temporary stoma* formed at the time of their "anterior resection" has remained relatively stable at 60%.

Target 6: Less than 35% 18-month unclosed diverting ileostomy after anterior resection.

Main report page 10

Worsened ✕

The proportion of people that do not have their temporary stoma* reversed at 18 months after their anterior resection* has increased from 34% in 2018/19 to 39% in 2020/21. This is likely explained by longer waiting times for surgery since the COVID-19 pandemic. There is wide variation between hospital trusts.



% of patients with an unclosed temporary stoma* 18-months after anterior resection

Main report page 11-13

CHEMOTHERAPY AND RADIOTHERAPY

Target 7: More than 50% patients with stage 3 colon cancer receiving adjuvant chemotherapy*.

Minimal change

Guidelines recommend that people who have stage 3 colon cancer should be offered adjuvant chemotherapy. During the COVID-19 pandemic, use of adjuvant chemotherapy for stage 3 colon cancer fell to 57% in 2020/21. Uptake has subsequently recovered to pre-pandemic levels with 62% receiving adjuvant chemotherapy in 2021/22 compared to 61% in 2019/20. There is considerable variation between hospital trusts in the use of adjuvant chemotherapy.

61% in 2019/20

to

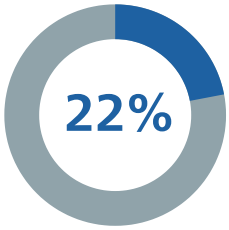
62% in 2021/22

% of patients receiving adjuvant (post-operative) chemotherapy for stage 3 colon cancer

Target 8: Less than 33% severe acute toxicity* after adjuvant chemotherapy for stage 3 colon cancer.

New QI target

Chemotherapy has side effects which can make you unwell e.g., diarrhoea, vomiting, and infections. This is called toxicity. "Severe acute toxicity" is defined as any toxicity which requires an overnight stay in hospital. Overall, 22% of patients receiving adjuvant chemotherapy had severe acute toxicity. There is wide variation between hospital trusts from 0% to 38%.



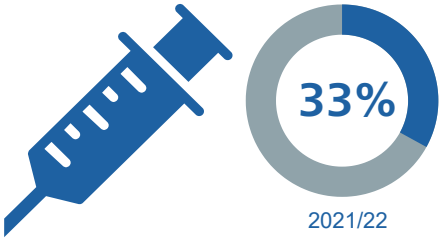
2021/22

% of patients who experience severe acute severe acute toxicity after adjuvant chemotherapy

Target 9: 10-60% of rectal cancer patients receiving neo-adjuvant therapy.

New QI target

Nationwide for patients undergoing major surgery for rectal cancer, 33% received neo-adjuvant (pre-operative) therapy, with variation from 19% to 57% between hospital trusts.



2021/22

% of patients with rectal cancer receiving neo-adjuvant (pre-operative) surgery

Target 10: More than 70% 2-year survival rate after major surgery.

Improved ✔

For patients undergoing major surgery, 2-year survival improved from 82% to 85%. For patients not undergoing a surgical procedure, 2-year survival improved from 28% to 32%.

82% in 2017/18*

to

85% in 2019/20*

% of patients alive 2-years after major colorectal cancer surgery (*year of surgery)

Further information

- You can use the NBOCA Organisational Survey to have a look at which facilities are available in your local hospitals, for example, chemotherapy and radiotherapy.
- If you have chemotherapy or radiotherapy for bowel cancer, you should ask your bowel cancer team what side effects to look out for and who to get in touch with if you have concerns. Bowel Cancer UK and Cancer Research UK have information on the side effects.

Explanation of terms used throughout this report

Abdomino-perineal excision of the rectum (APER) - an operation to remove the entire rectum and anal canal.

Adjuvant chemotherapy - chemotherapy given after an operation.

Anterior resection - an operation to remove part, or all, of the rectum.

Chemotherapy - drug therapy used to treat cancer. It may be used alone, or in combination with other types of treatment (for example surgery or radiotherapy).

English Cancer Alliance - cancer services in England are organised geographically. Each Cancer Alliance contains a particular set of hospitals.

Hartmann's procedure - operation to remove the bowel on the left-hand side of the abdomen and top of the rectum. It involves the formation of a stoma, which is not always permanent.

Laparoscopic - also called minimally invasive or keyhole surgery, it is a type of surgical procedure performed through small cuts in the skin instead of the larger cuts used in open surgery.

Local excision - a procedure done with instruments inserted through the anus (often during a colonoscopy), without cutting into the skin of the abdomen to remove just a small piece of the lining of the colon or rectum wall.

Loop ileostomy - type of stoma involving small bowel, often used for people who have an anterior resection and is not necessarily permanent.

Lynch Syndrome - An inherited genetic condition that can increase the lifetime risk of bowel cancer to up to 80% and can increase the risk of some other cancers including womb and ovarian. It is diagnosed using a blood test to look for a genetic defect.

Multidisciplinary team (MDT) - an MDT is a group of bowel cancer experts based within a hospital who discuss and plan the treatment of every patient with bowel cancer. The MDT includes surgeons, cancer specialists, nurses, radiologists, histopathologists and palliative care physicians.

Neo-adjuvant - chemotherapy and/or radiotherapy given before an operation.

Radiotherapy - the treatment of disease, especially cancer, using X-rays or similar forms of radiation. Long-course and short-course radiotherapy include different intensities and durations of treatment.

Robotic surgery - this is a relatively new advancement in surgery and allows surgeons to control surgical instruments whilst sitting at a special console during the operation.

Screening - the aim of screening is to try to detect cancers early. People aged 60-74 are invited to take part in bowel cancer screening every 2 years. They do this by providing a poo sample which is checked for blood (FIT). The screening age is gradually being lowered to 50 years for the NHS Bowel Cancer Screening Programme in England and Bowel Screening Wales.

Stage - staging is a way of describing the size of a cancer and how far it has grown. Staging is important because it helps decide which treatments are required. Stage I and 2 cancers are localised to the bowel. Stage 3 cancers have spread to the lymph glands. Stage 4 cancers have spread to other parts of the body, for example, the liver or lungs.

Stoma - a surgical opening in the abdomen through which the bowel is brought out onto the surface of the skin. Colostomy and ileostomy are types of stoma. Stomas may be temporary, meaning that they can be reversed (bowel put back inside the abdomen), or permanent, meaning that they cannot be reversed.

Toxicity - chemotherapy often has side effects which can make you unwell. This is called toxicity and can be of varying severity. It includes, for example, diarrhoea and vomiting.

George Alagiah OBE, one of the BBC's most respected journalists, was diagnosed with bowel cancer in 2014 and sadly passed away in July 2023. He was a huge advocate of raising awareness of bowel cancer and supported Bowel Cancer UK's campaign calling on the NHS to lower the bowel cancer screening age to 50.

Listen to George Alagiah share his personal insights of living with bowel cancer and raise lifesaving awareness of the symptoms on Bowel Cancer UK's podcast. It includes George speaking to people living with advanced bowel cancer as well as doctors caring for patients with bowel cancer.

To hear more conversations around bowel cancer, listen to the Bowel Research UK Podcast "Can I Butt In?" or the You, Me and the Big C podcast.

This report has been prepared with:

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Bowel Cancer UK

BOWEL RESEARCH UK.

We would like to thank the NBOCA Patient and Public Involvement Forum which consists of patient and carer representatives, as well as bowel cancer charity representatives, for their invaluable contribution to the formation of this report. Details of the NBOCA Patient and Public Involvement Forum can be found here: https://www.nboca.org.uk/about/our-team/