NBOCA
National Bowel Cancer Audit

NATCAN
National Cancer Audit Collaborating Centre

National Bowel Cancer Audit State of the Nation Report

Summary of findings for the public and patients

Published January 2025

NBOCA

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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/

Royal College of Surgeons of England
ADVANCING SURGICAL CARE

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HQIP
Healthcare Quality Improvement Partnership

The National Cancer Audit Collaborating Centre (NATCAN) is commissioned by the **Healthcare Quality Improvement Partnership (HQIP)** as part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP). NATCAN delivers national cancer audits in non-Hodgkin lymphoma, bowel, breast (primary and metastatic), oesophago-gastric, ovarian, kidney, lung, pancreatic and prostate cancers. HQIP is led by a consortium of the Academy of Medical Royal Colleges and the Royal College of Nursing. Its aim is to promote quality improvement in patient outcomes, and in particular, to increase the impact that clinical audit, 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.
https://www.hqip.org.uk/national-programmes

What is the National Bowel Cancer Audit (NBOCA)?

The National Bowel Cancer Audit (NBOCA) measures the care and outcomes for people 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 as well as learning from hospitals/trusts/MDTs who provide excellent care.

What is this report about?

This report is a summary of the main findings and recommendations in the NBOCA State of the Nation report. The full report can be found here . Most results are about people diagnosed and treated for bowel cancer between 1 April 2022 and 31 March 2023. The emphasis is on measuring 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 people with bowel cancer.

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 and was updated in 2024. The aim of the programme is to support hospitals in England and Wales to improve the quality of the care received by people living with bowel cancer. NBOCA develops performance indicators with local 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 performance indicators under the headings **Diagnosis**, **Surgery** and **Chemotherapy* and Radiotherapy***. You can also access the results of the performance indicators for individual hospital trusts via interactive pages on the NBOCA website here.

What's new?

The NBOCA Quality Improvement (QI) Programme launched in 2021 and was updated in 2024. The aim of the programme is to support hospitals in England and Wales to improve the quality of the care received by people living with bowel cancer. NBOCA develops performance indicators with local 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 performance indicators under the headings **Diagnosis, Surgery** and **Chemotherapy*** and **Radiotherapy***. You can also access the results of the performance indicators for individual hospital trusts via interactive pages on the NBOCA website 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
- Quality improvement resources
- Published scientific papers

Follow us on X @NBOCA_CEU , LinkedIn National Bowel Cancer Audit (NBOCA) | LinkedIn 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 ??. 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

Key messages

- This year's data shows a worsening in meeting the local target for closing temporary stomas* within 18 months after anterior resection*. Only 4 out of 10 trusts met the target of less than 35% of temporary stomas unclosed. Delays can impact quality of life, body image, and well-being, while also increasing clinical risks like dehydration, electrolyte imbalances, and stoma complications. The issue of delayed stoma closure remains a critical concern and a key area for development.

- There continues to be variation in the use of adjuvant chemotherapy* for stage* 3 colon cancer between hospitals trusts. 10% of trusts/MDTs were below our local target. Hospitals should monitor and investigate their use of adjuvant chemotherapy and ensure evidence-based policies are in place.

- 21% of people experience severe acute toxicity* following adjuvant chemotherapy for stage 3 colon cancer. This varied widely between hospitals from 0% to 47%. We recommend that cancer alliances* monitor and investigate hospital variation in people with severe acute toxicity after adjuvant chemotherapy.

- In England in 2021, 57% of people with bowel cancer were recorded as being tested for Lynch syndrome*. This figure is likely to underestimate testing as data on all types of testing are not available at present.

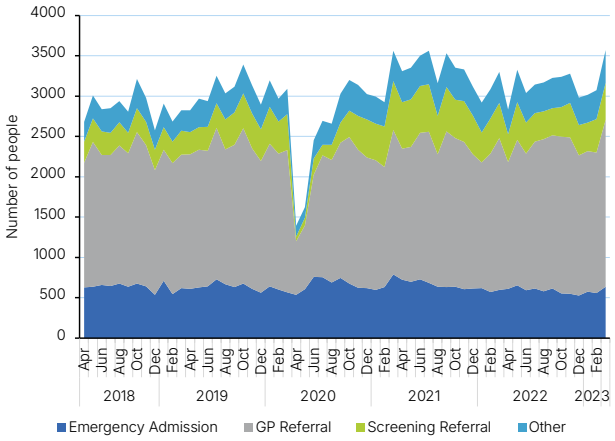
- Data completeness refers to how often key data items are missing. Data completeness has affected how well we can make fair comparisons between hospital trusts, through risk-adjustment*. Only 43% of trusts/MDTs in England and Wales met the data completeness local target compared to 82% last year – reflecting the move to routinely collected datasets rather than a bespoke NBOCA dataset.

Diagnosis

Main report page 7

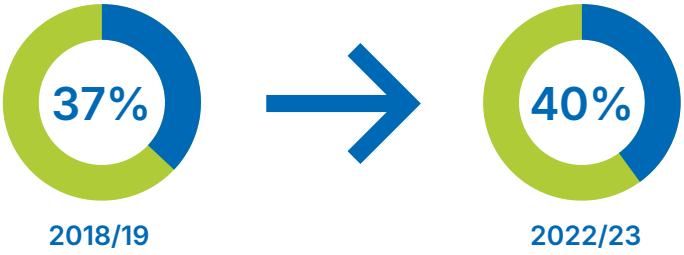
How were people with bowel cancer diagnosed?

The total number of people diagnosed with bowel cancer in England and Wales between 1 April 2022 and 31 March 2023 was 38,604. Since 2015, the number of people diagnosed through bowel cancer screening* tests have steadily increased. This year there has been a sharper rise in the number of cancers diagnosed through screening. This follows a change in screening guidelines by reducing the age at which people are invited to bowel cancer screening.



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 people 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 earlier detection of cancer, when it is easier to treat successfully, is also a focus of the Quality Statement for Cancer in Wales. In 2022/23, the proportion of people diagnosed with Stage 1 or 2 bowel cancer in England and Wales has remained relatively static at 40%. This compares to 37% in 2018/19.

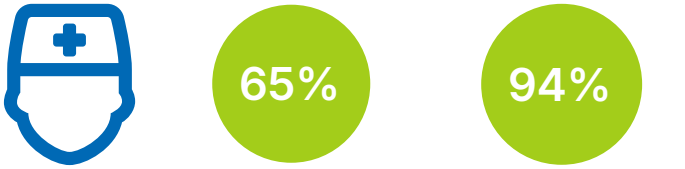


Proportion of people who presented with stage 1 or stage 2 cancer

NHS Bowel Cancer screening programme checks if you could have bowel cancer. In England it's available to everyone aged 55 to 74 years (recently reduced from 60-74 years) and 50 to 74 years in Wales. Screening can help prevent bowel cancer or find it at an early stage. Click here to find out more if you live in England and here if you live in Wales.

Local Target 1: More than 95% of people seen by a Clinical Nurse Specialist (CNS) within Trusts/MDTs.

It is recommended that all people with bowel cancer meet a CNS for advice and support. This target highlights one of the limitations to how we now collect data. A large proportion of people had missing CNS data. Of those with available data in 2021/22, 94% of people were seen by a CNS and 6 out of 10 trusts/ MDTs met the 95% local target.



% of people with CNS data available

% of people with CNS data available who were seen by a CNS

Surgery

Local Target 2: Trusts/MDTs to perform 20 or more rectal cancer operations per year.

Continuously meeting targets

In 2022/23 81% of hospitals met this target. Rectal cancer surgery is complex, so guidelines recommend hospitals perform 20 or more major operations per year.

71% to 68%

2019/20 2021/22

% of trusts/MDTs that performed 20 or more major rectal cancer operations per year

Main report page 9-11

Local Target 3: Less than 6% of people who die within 90-days of major bowel cancer surgery.

Continuously meeting targets

Of the 21,843 people who had major bowel cancer surgery in 2022/23, the proportion of people who died within 90 days of their operation was 2.7%, which remains comparable to last year's figure of 2.4%. This has gradually reduced from 3.4% in 2018/2019. In 2022/23, 96% of trusts/MDTs met the local target.

3.4% to 2.7%

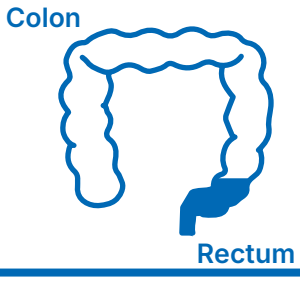
2018/19 2021/22

% of patients who died within 90 days of surgery

Rectal Cancer

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 people with rectal cancer having major surgery has decreased. This is due to increased use of "local excision"* techniques that 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 major surgical procedure involving the removal of the rectum. Although lots of reasons influence this decision, some people receive a stoma, which is often intended to be temporary. The percentage of people with a temporary stoma following an "anterior resection" has remained consistently around 60%.



Local Target 4: Less than 10% of people who required unplanned surgery within 30-days of major bowel cancer surgery.

Improved

The proportion of people who needed to return to the operating theatre within 30 days of their bowel cancer surgery has continued to reduce. In 2022/23, 92% of trusts/MDTs met the local target.

8.0% to 6.7%

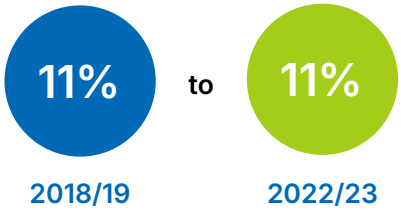
2018/19 2022/23

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

Local Target 5: Less than 15% of people being readmitted to hospital within 30-days of major bowel cancer surgery.

Consistently achieved

For the third consecutive year, the proportion of people being admitted to hospital on an unplanned basis in the 30-days following a major bowel cancer operation is unchanged at 11%. 81% of trusts/MDTs met the local target.

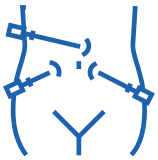


% of people with an unplanned 30-day readmission after surgery

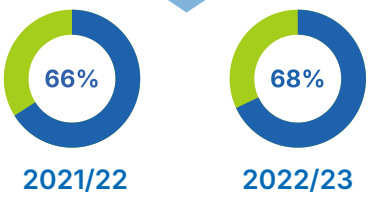
Minimally invasive* ("keyhole") surgery in major bowel cancer operations.

There is increasing evidence that keyhole surgery can improve outcomes for people with bowel cancer. After a temporary dip during the COVID-19 pandemic (due to concern of spreading airborne infection) keyhole surgery levels have returned to previous levels. This includes both laparoscopic* and robotic-assisted surgery*. The graph shows a steady rise in adoption of robotic surgery.

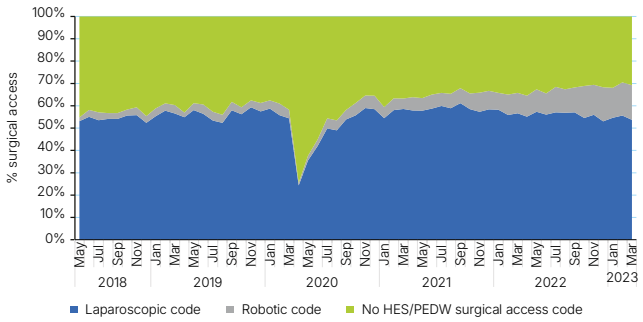
This area of study is also limited by missing data in the new datasets, and we think that volume of keyhole surgery is being under-reported.



Main report page 10



% of people who underwent major colorectal cancer surgery with a minimally invasive approach



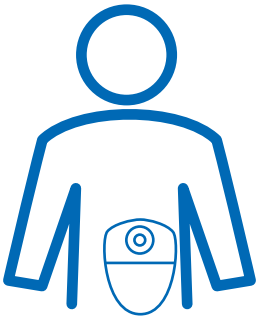
Local Target 6: Less than 35% of people with an unclosed temporary stoma 18-months after anterior resection.

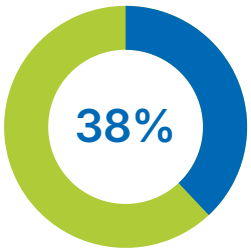
Target missed... again

Main report page 11

The proportion of people whose temporary stoma* has not been reversed 18 months after their anterior resection* was 38%. This compares to 35% in last year's State of the Nation report. This may be due to persistent long surgical waiting times since the COVID-19 pandemic. There remains significant variation across hospital trusts with only 41% of trusts/MDTs meeting the local target.

Recognising the impact on quality of life and long-term survival outcomes, we highlight this as a key area for development.





Chemotherapy and Radiotherapy

Main report page 12-14

66%

2020/22

% of people who receive adjuvant chemotherapy for stage 3 colon cancer (year of surgery)

21%

2020/22

% of people who experienced severe acute toxicity after adjuvant chemotherapy (year of surgery)

34%

2020

% of people with rectal cancer who received neo-adjuvant treatment (year of diagnosis)

82%

2020/21

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

Neo-adjuvant refers to treatments (chemotherapy, or radiotherapy) given before major bowel cancer surgery, whilst **adjuvant** refers to treatments which may be given after surgery. There is often a period of weeks to months between surgery and adjuvant treatments while people recover from their operation.

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

Post-pandemic improvement

Guidelines recommend that people who have stage 3 colon cancer should be offered adjuvant chemotherapy. The use of adjuvant chemotherapy has consistently increased post-pandemic and most recently 66% of people with stage 3 colon cancer received post-operative chemotherapy. 93% of trusts/MDTs met the local target.

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

Increasing variation

Chemotherapy has side effects, or 'toxicities' which can make you unwell, such as diarrhoea, vomiting, and infections. 'Severe acute toxicity' is defined as any toxicity which requires an overnight stay in hospital. Overall, 21% of people receiving adjuvant chemotherapy had severe acute toxicity. There is wide variation between hospital trusts (0%-47%) with 95% meeting the local target.

Local Target 9: 10-60% of people with rectal cancer receiving neo-adjuvant therapy.

Wide variation

Nationally, for people undergoing major surgery for rectal cancer, 32% received neo-adjuvant (pre-operative) therapy, with 89% of trusts/MDTs meeting the local target. However, there was very wide variation from 0% to 82% between hospital trusts.

Local Target 10: More than 70% of people alive 2-years after major surgery.

Target achieved

For people undergoing major surgery, 82% were alive 2-years after surgery, similar to previous years (84% last year). 97% of trusts/MDTs met the local target.

Further information

If you have chemotherapy or radiotherapy for bowel cancer, you can 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.

Recognitions

Professor "Robert Bob" Arnott, a respected figure within NBOCA and the bowel cancer community, passed away in August 2024. Known for his warmth, humour, and dedication, Bob made significant contributions to the Audit, serving as Chair of the Patient and Public Involvement Panel for many years. His work was pivotal in ensuring that patient and public perspectives informed ongoing initiatives.

Bob's influence extended internationally, where he represented the Audit at conferences and collaborated with bowel cancer charities. He was instrumental in organising meetings, facilitating dialogue, and strengthening partnerships. His sharp wit, passion for sports anecdotes, and commitment to improving bowel cancer care left an indelible mark on all those he worked with.

He will be remembered not only for his professional accomplishments but also for his remarkable ability to connect with people and inspire progress in healthcare.

Suzanne Dore has stepped down from her role as Patient Representative after five years of representing people and the public on the NBOCA Patient and Public Involvement Panel, which she joined at its inception in 2019. We extend our heartfelt thanks to Suzanne for her invaluable contributions. Her unwavering dedication to amplifying the patient voice and advocating for bowel cancer awareness has made a lasting impact. We wish her every success in her future endeavours and look forward to her continued advocacy within the bowel cancer community.

Trevor Sorbie MBE, the renowned British celebrity hairdresser and businessman, sadly passed away in November 2024 due to bowel cancer, following his diagnosis in 2019. Sorbie was widely celebrated not only for his contributions to hairdressing but also for his compassionate advocacy for people experiencing hair loss due to medical conditions like cancer and alopecia.

Sorbie founded the charity My New Hair after his wife's bone cancer diagnosis, focusing on providing realistic wigs and emotional support to people undergoing chemotherapy. His work influenced NHS policy, securing funding for enhanced NHS wig services and expanding the charity internationally. He also trained hairdressers to specialise in working with wigs, thereby improving the lives of countless individuals undergoing cancer treatment or living with alopecia.

His legacy as a pioneer in both hairdressing and charity work remains impactful, and he is remembered as an empathetic and visionary leader in his field.

Explanation of terms used throughout this report

Adjuvant chemotherapy - chemotherapy given after an operation, usually a number of weeks or months after recovering from surgery.

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 group of Trusts in regional partnership working to improve cancer care coordination, outcomes, and access.

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

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-assisted 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. This console is within the same operating room.

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 1 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 abdominal skin where the bowel is brought out to the surface. Bowel contents are then collected within a stoma bag which attaches to surrounding skin with an adhesive dressing. Bags can readily be replaced.

Colostomy (colon or large bowel) and **ileostomy** (ileum, part of the small bowel) 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.

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

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. **Severe acute toxicity** is defined by requiring hospitalisation because of these side effects