NBOCA
National Bowel Cancer Audit

NATCAN
National Cancer Audit Collaborating Centre

National Bowel Cancer Audit
State of the Nation Report 2025:
Summary of findings for the public and patients

An audit of care received by people diagnosed or undergoing surgery for bowel cancer between 1 January 2023 to 31 December 2023 in England and Wales.

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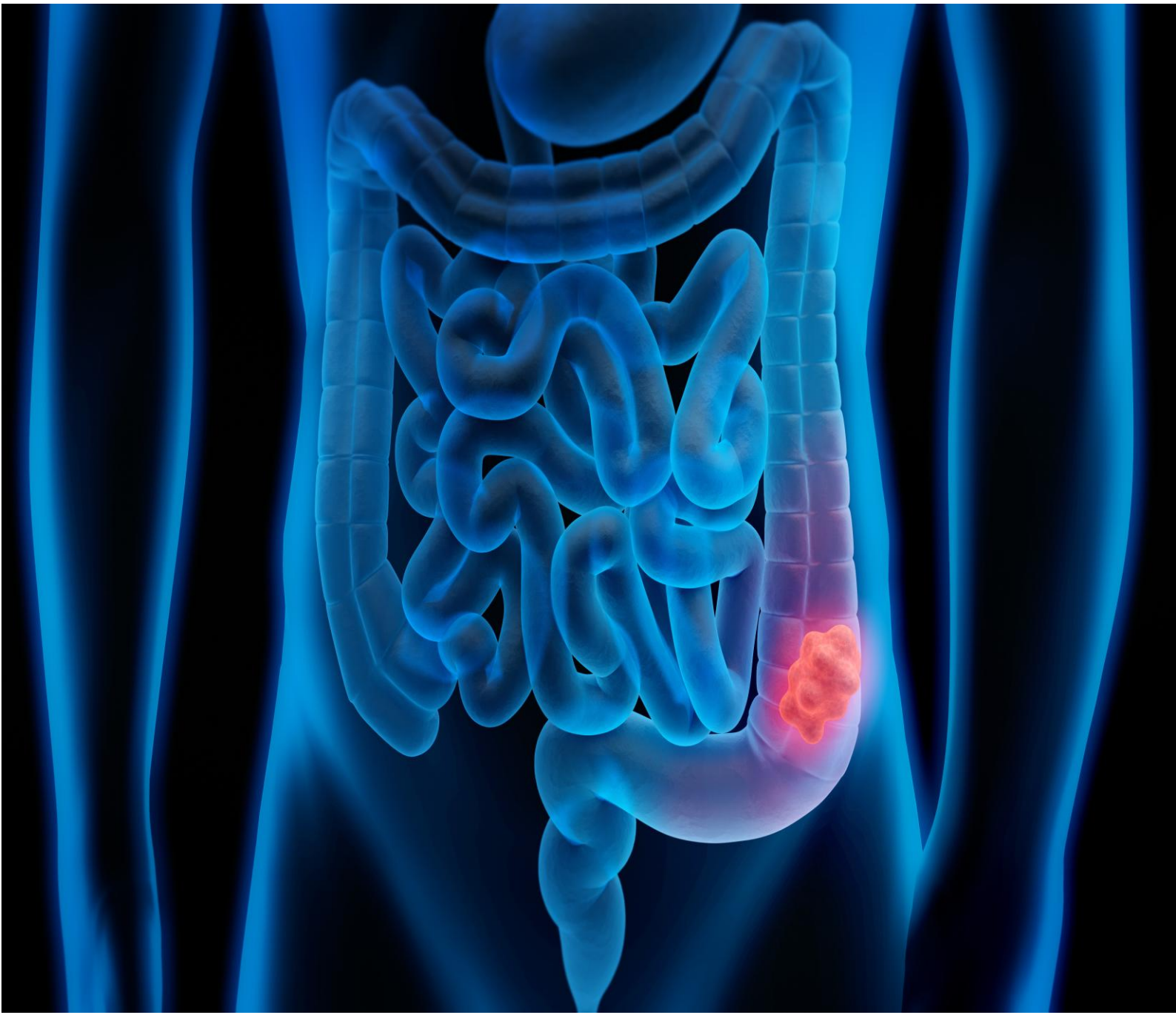


This report was prepared by the NBOCA Project Team. We would like to thank the NBOCA Patient and Public Involvement Forum which consists of patient and carer representatives, as well as bowel cancer charity representatives, for their invaluable contribution to the formation of this report. Details of the NBOCA Patient and Public Involvement Forum can be found here: www.natcan.org.uk/audits/bowel/team

In partnership with:

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. As part of this it supports audit and the evaluation of clinical effectiveness for surgery. Registered Charity no: 212808.

The National Cancer Audit Collaborating Centre (NATCAN) is commissioned by the Healthcare Quality Improvement Partnership (HQIP) and funded by NHS England and the Welsh Government as part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP). NATCAN delivers national audits in bowel, breast (primary and metastatic), kidney, lung, non-Hodgkin lymphoma, oesophago-gastric, ovarian, pancreatic and prostate cancers.

Association of Coloproctology of Great Britain and Ireland (ACPGBI) is a group of 1000+ surgeons, nurses, and allied health professionals who advance the knowledge and treatment of bowel diseases in Britain and Ireland. Registered Charity no: 5962281

The Association of Cancer Physicians (ACP) is the specialist society for medical oncologists in the UK. It works with and for its members to support and promote the specialty and to help improve medical care for cancer patients.

This work uses data that has been provided by patients and collected by the NHS as part of their care and support. For patients diagnosed in England, the data is collated, maintained and quality assured by the National Disease Registration Service (NDRS), which is part of NHS England. Access to the data was facilitated by the NHS England Data Access Request Service.

NHS Wales is implementing a new cancer informatics system. As a result, the quality and completeness of data from Wales is likely to have been impacted due to implementation of this new system across multiple NHS organisations (Health Boards), which has resulted in data being supplied by both old and new systems. Additionally, and reflecting the uncertainty of data quality, the data submitted to the audit may not have undergone routine clinical validation prior to submission to the Wales Cancer Network (WCN), Public Health Wales.

This report is endorsed by:

Contents

1. Introduction

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. NBOCA aims to improve patient care by highlighting areas where improvements might be made. Whilst no formal reports are produced, some details are publicly available for Scotland and Northern Ireland by following the associated links.

What is this report about?

This report is a summary of the main findings and recommendations in the NBOCA State of the Nation report. Results are about patients diagnosed with or treated for bowel cancer between 1 January 2023 and 31 December 2023[1]. 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.

An explanation of key terms used in this report can be found on page 9. These terms are marked with an asterisk (*) throughout this report.

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 UK 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***.

What's new?

- In 2023, the National Bowel Cancer Audit (NBOCA) transitioned to the National Cancer Audit Collaborating Centre (NATCAN). NATCAN's mission is to enhance cancer care by driving improvements in detection, treatment, and outcomes for patients diagnosed with cancer.
- This report marks the second year of utilising cancer registry data, collected centrally by the NHS.
- Our Quarterly Data Dashboards are now live. This is publicly available and gives up to date reporting on data completeness and select performance indicators at Trust and Cancer Alliance level. Currently this is only available for hospitals/trusts in England.

Important considerations

Within the report we will compare results to previous years. Commonly, we will refer to results from 2019. This year was chosen as the final year prior to the covid-19 pandemic where services were functioning normally. In future years we will aim to move to comparing against post-pandemic years only.

Some of the data is not entirely complete which in part is attributable to our recent shift to routinely collected data sources. We are working closely with hospitals/trusts/MDTs to improve data completeness, and this remains one of our key recommendations.

[1] Where treatment spans over multiple calendar years, patients are included according to either their date of diagnosis or their date of surgery, depending on the target being analysed.

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

 **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:** use MY data

2. Key Messages and Recommendations

- Closure of temporary stoma* rates within 18 months after surgery remains static compared to last year with more than 1-in-3 patients (38%) having an unclosed stoma* at 18 months. This continues to be a priority and is being addressed through our quality improvement (QI) collaborative with The Royal College of Surgeons of England – Close It Quick.

- There continues to be variation in the use of adjuvant chemotherapy* for stage* 3 colon cancer between hospital trusts. Currently 12% of NHS trusts/MDTs do not meet this target. We recommend these centres undertake individual analysis and review their rationale for not offering those treatments.

- In England in 2022, 66% of people with stage 4 bowel cancer had a record of genetic tumour testing, compared to 67% in 2020. This is limited by gaps in data and so only 44 of 119 eligible NHS trusts could be reported.

- There continues to be wide variation in the use of neoadjuvant radiotherapy* for people with rectal cancer undergoing major resection*. Overall, 33% of people received this treatment with variation from 6% to 87% between trusts/MDTs. We encourage cancer alliances and health boards to develop standardised evidence-based protocols to guide treatments.

- Data completeness continues to be a key recommendation to inform our work. For people who underwent major surgery for bowel cancer in 2023, 52% of NHS trusts in England and all MDTs in Wales achieved the data completeness target.

3. Diagnosis

How were people with bowel cancer diagnosed?

The total number of patients diagnosed with bowel cancer in England and Wales between 1 January 2023 and 31 December 2023 was 37,730. The proportion of people diagnosed with bowel cancer who were under 50 years of age has increased from 6.4% in 2021/22 to 8.0% in 2023. This age group will be a focus of further study over the coming year.

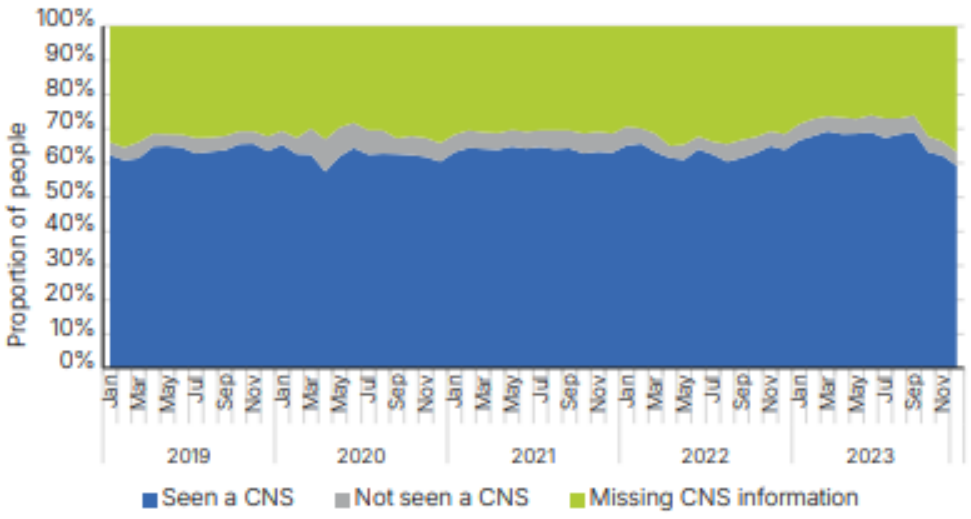
What percentage of people presented with Stage* 1 or 2 bowel cancer?

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 cancer earlier, when it is easier to treat, 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 over time, from 37% in 2018/19 to 41% in 2023. This reflects a slow but ongoing rise in capturing more patients at an early stage of bowel cancer.

NHS bowel cancer screening checks if you could have bowel cancer. In recent years the programme has been extended and is undergoing a phased roll-out to invite all people from 50 to 74 years across England and Wales. Additionally, people aged 75 and above can request a screening kit, though they will not routinely be invited. 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.

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

Consistency



It is recommended that all patients with bowel cancer meet a CNS for advice and support throughout their treatment. Where data is available, 61% of trusts/MDTs met the target of 95% of their patients seeing a CNS, and 93% of patients nationally saw a CNS. These figures are similar to the previous report covering 2022/23.

4. Surgery

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

Consistency

In 2023 78% of trusts/MDTs met this target, similar to 81% displayed in our previous report covering 2022/23, and consistently above the previous two years. This target is to ensure surgeons are regularly performing the types of operation required to keep good standards of practice.

78%
2023

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

Continuously meeting targets ✓

20,977 people had major bowel cancer surgery in 2023. The proportion of patients who died within 90 days of their operation was 2.5%, which remains consistently below the target of 6% and is an improvement when compared to 2019.

3.1% 2019
to
2.5% 2023

Target 4: Less than 10% of patients with an unplanned return to theatre within 30 days of major bowel cancer surgery.

Improved ✓

Return to surgery often relates to surgical complications. Whilst some are unavoidable and unforeseen, this target allows us to monitor surgical standards to ensure they are kept high. 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 continued to reduce.

8.0% 2019
to
6.8% 2023

11.1% 2019
to
11.9% 2023

Target 5: Less than 15% of patients with an unplanned readmission to hospital within 30 days after major bowel cancer surgery.

NBOCA will monitor closely

This is another target which is monitored to broadly reflect complications after surgery. These may encompass a variety of reasons for needing to come back to hospital on an unplanned basis. At 11.9% this is the highest percentage in four years of the proportion of people being admitted to hospital on an unplanned basis in the 30-days following a major bowel cancer operation. Whilst this has changed only a fraction of a percent it is something we will monitor closely.

Target 6: Less than 35% of patients with an unclosed temporary stoma 18-month after anterior resection.

Major concern ✕

The proportion of people whose temporary stoma* has not been closed/reversed 18 months after their anterior resection* was 38% for people treated between April 2018 and March 2023. This is closely comparable to last year's report but shows no signs of returning to pre-pandemic levels. Having an ileostomy is proven to negatively impact quality of life as well as impairing long term bowel function if stoma closure is delayed. Additionally, it has associated costs for stoma-related appliances. To address this issue we have collaborated with The Royal College of Surgeons of England to roll out a national quality improvement initiative Close It Quick. This particular target is reported over a 5-year period because of the lower numbers of people undergoing this treatment.

38%

Changes in Surgical Practice:

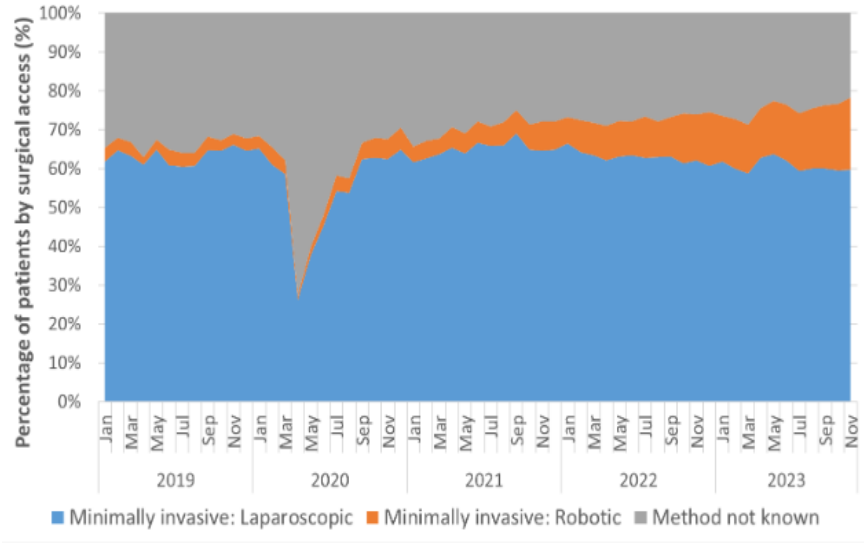
Over time, with advances in medicine and technology we are seeing a change in how some aspects of bowel cancer treatment is provided. We currently do not set targets on the below but keep a close eye on how care is delivered.

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 patients 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.

Approximately 2 in 3 major surgical procedures for rectal cancer are an anterior resection*. This involves the removal of the rectum with or without a temporary stoma*. Although various factors influence this decision, some patients receive a stoma, which is often intended to be temporary. The percentage of patients with a temporary stoma following an anterior resection has recently reduced to around 55% from a previously consistent level at around 60%. This may also partly be explained by a slight rise in the proportion of people undergoing abdominoperineal excision of rectum* (APER) which is the other major surgical procedure for rectal cancer and means people have a permanent stoma. In 2023 there was a 3% rise in APER* when compared to 2019.

Minimally invasive* (“keyhole”) surgery in major bowel cancer operations



66% 2019

to

75% 2023

There is increasing evidence that keyhole surgery can improve outcomes for patients with colon or rectal cancer. During the covid-19 pandemic there was a temporary decrease in the proportion of patients undergoing keyhole surgery. This reflects initial guidelines recommending open surgery due to concerns about the transmission of covid-19 during keyhole surgery. Since the pandemic, keyhole surgery continues to be widely used, with 75% of people having a record for this method of surgery during 2023. The graph also shows the expansion of robotic surgery*, from 10% in 2022 to 15% in 2023. We suspect that the volume of keyhole surgery is still being under-reported with our relatively recent change in data collection method.

5. Chemotherapy and Radiotherapy

66%

Target 7: More than 55% of patients with stage 3 colon cancer receiving adjuvant chemotherapy*.

Returned to pre-pandemic performance ✓

Guidelines recommend that people who have stage 3 cancer within the colon (not rectum) should be offered adjuvant chemotherapy in the months after recovering from surgery as this improves their chances of survival in the longer term. Uptake of adjuvant chemotherapy has consistently risen post-pandemic and has now been recorded at 66% for two consecutive reports

20%

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

Reducing variation ✓

Chemotherapy has side effects, or 'toxicities' which can make you unwell e.g., diarrhoea, vomiting, and infections. "Severe acute toxicity" is defined as any toxicity which requires an overnight stay in hospital. Overall, 20% of patients receiving adjuvant chemotherapy had severe acute toxicity. There continues to be variation between hospital trusts, though this has reduced to 17%-25% (previously 0%-47%). This variation suggests that some trusts/MDTs may be over- or under-utilising adjuvant chemotherapy in this group of people.

34%
2022

to

33%
2023

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

Persistent wide variation 🔍

Nationwide for patients undergoing major surgery for rectal cancer, 33% received neo-adjuvant* therapy, with 84% of trusts meeting the local target. However, there was very wide variation from 6% to 87% between hospital trusts – something we saw similarly last year. This is a rapidly changing area of bowel cancer treatment and something we aim to look at in future years.

82.3%
April 2020 to March 2021

to

84.9%
April 2021 to March 2022

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

Target achieved ✓

For patients undergoing major surgery, 2-year survival was 84.9%. This represents an improvement from 82.3% in last year's report. This positive trend may reflect improvements in the care of people with bowel cancer.

6. 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.

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.

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

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 – a relatively new advancement in surgery that allows surgeons to perform procedures with enhanced precision using robotic instruments. It allows surgeons to control surgical instruments whilst at a special console during the operation.

Screening – the aim of screening is to try to detect cancers early. People aged 50-74 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.

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 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.

Further information

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.