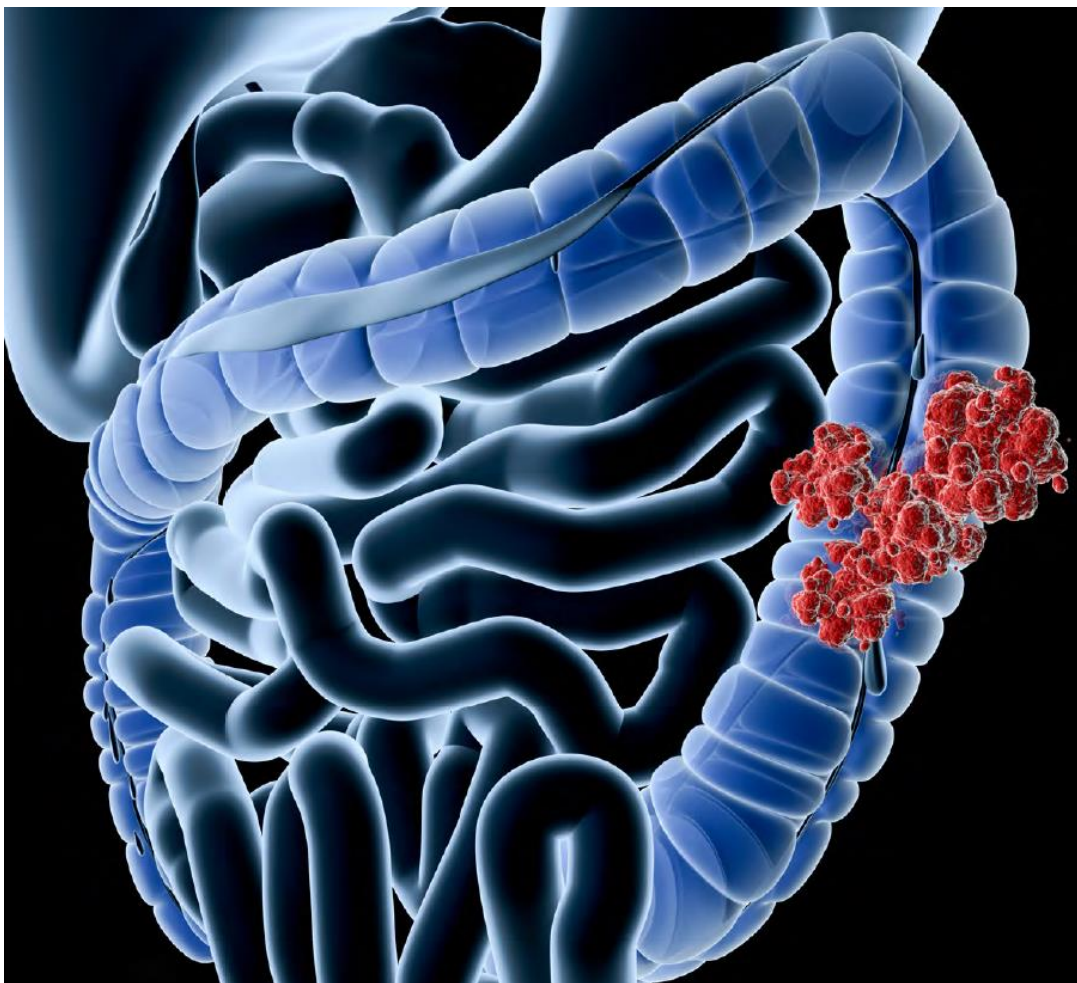


# National Bowel Cancer Audit 2022 Annual Report

Summary of findings for the public and patients



This report has been prepared with:

## What is NBOCA?

The **National Bowel Cancer Audit (NBOCA)** compares the care and outcomes of bowel cancer patients in NHS hospitals across England and Wales. It aims to improve patient care by highlighting areas where improvements might be made.

## What is this report about?

Annual report  
pages 6 to 10

This report is a summary of the main findings and recommendations in the [NBOCA 2022 Annual Report](#).

Most results are about patients diagnosed and treated for bowel cancer between 01 April 2020 and 31 March 2021. This includes bowel cancer patients treated during the COVID-19 pandemic. The emphasis is on evaluating changes in care and outcomes over time.

Speech bubbles (like the one above) tell you which pages in the annual report give further information. We encourage patients with bowel cancer to consider the suggestions shown in the yellow **'What can you do?'** panels.

## Where can I find more information about the NBOCA?

There are many different NBOCA resources which can be accessed via the [website](#).

This includes:

- ✦ [All annual and patient reports](#)
- ✦ [Short reports on particular topics](#)
- ✦ [Individual hospital trust results](#)
- ✦ [Published scientific papers](#)
- ✦ [Quality improvement resources](#)
- ✦ [Patient information leaflet](#)



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At the end of this report, there is a list of explanations for commonly used terms relating to bowel cancer care. 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

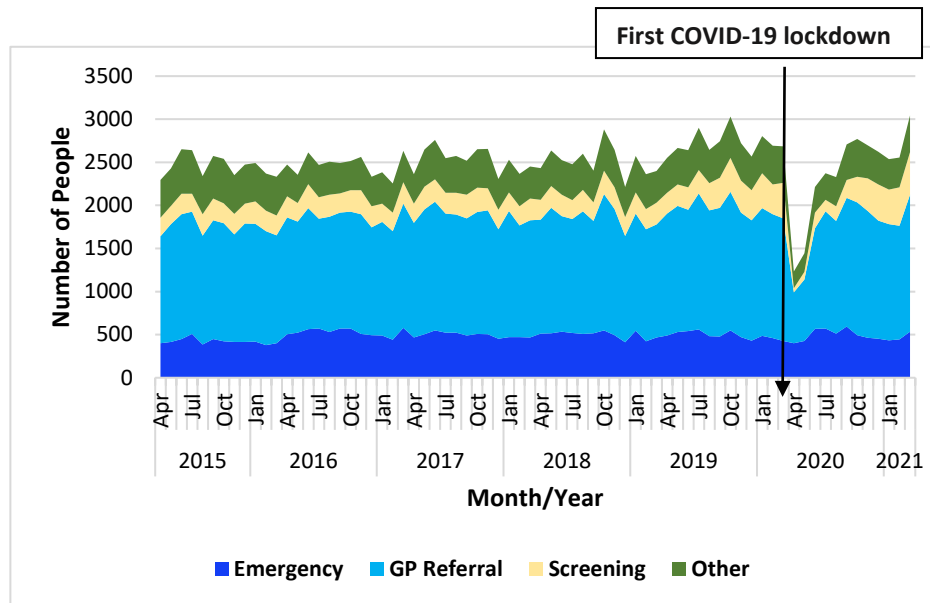
- [use MY data](#)

We would like to thank the NBOCA Patient and Carer Panel 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 Carer Panel can be found here: <https://www.nboca.org.uk/about/our-team/>

## -DIAGNOSIS-

### How were people with bowel cancer diagnosed?

Bowel cancer involves the [large bowel](#), made up of the colon and rectum. Cancer of the colon and rectum are treated differently.



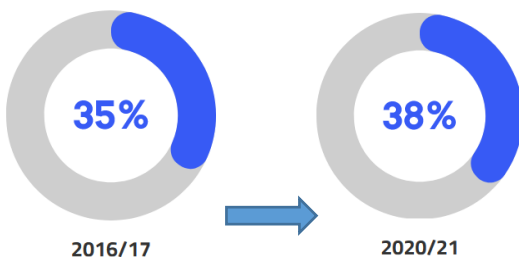
The number of people diagnosed with bowel cancer was greatly reduced at the start of the COVID-19 pandemic. The number of people diagnosed in an emergency remained constant. By around October 2020, the number of people diagnosed had returned to the usual level.

Screening\* was paused locally during the first wave of the pandemic due to infection control measures.

Apart from during the early pandemic, there has been an increase in the number of people diagnosed through screening over time.

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### What proportion of people presented with early (stage 1 or 2) cancer?

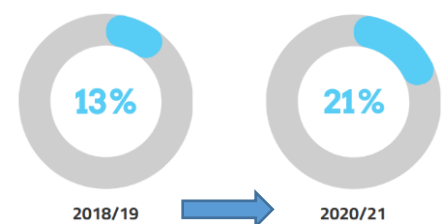


It is an aim in the [NHS Long Term Plan for Cancer](#) that by 2028, **75%** of cancer patients will be diagnosed with early (stage 1 or 2) bowel cancer\*. The proportion of people that presented with early bowel cancer had improved from **35%** in 2016/17 to **40%** in 2019/20. There was a small reduction in 2020/21 with **38%** of people being diagnosed with early bowel cancer.

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### What proportion of people had Mismatch Repair (MMR) testing?

Genetic testing, including Mismatch Repair testing, is of increasing importance for deciding the best bowel cancer treatment for patients. MMR testing is used to screen patients and identify those at risk of a hereditary form of bowel cancer called Lynch Syndrome\*. It can also be used to select patients for oncology treatments that are more effective. The recording of Lynch syndrome testing in NBOCA data has *increased* from **13%** in the 2018/19 period to **21%** in 2020/21. Younger people and those who have surgery are more likely to have this data item completed. There is wide geographical variation in data completion, although half of English Cancer Alliances\* had *improved* their data completion rates in 2020/21.



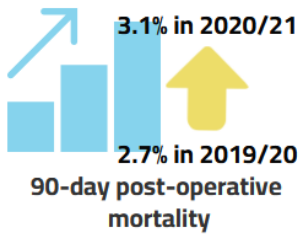
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#### DIAGNOSIS - What can you do?

- Be aware of the [signs and symptoms](#) of bowel cancer and speak to your GP straight away if you have concerns. Bowel cancer found early is more likely to be cured.
- Take part in the [NHS Bowel Cancer Screening Programme in England](#) or [Bowel Screening Wales](#). The lower age for screening is gradually reducing in England over the next 4 years to include those aged 50-59. In Wales, you will be invited for screening if you're between 55 and 74. Bowel cancer detected by the screening programme is more likely to be cured.
- [FIT \(Faecal Immunochemical Test\)](#) is now used for screening and tests one poo sample. Find out more [here](#).
- If you, a family member, or friend, are diagnosed with bowel cancer – ask your doctor about being tested for Lynch Syndrome. ALL people with bowel cancer should be tested as per [national guidelines](#).

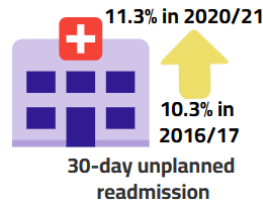
## -SURGERY-

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page 23



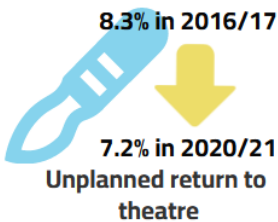
The proportion of people who die within 90 days of a bowel cancer operation has *increased* slightly in 2020/21 from **2.7%** in 2019/20. However, this remains comparable to 2017/18 (3.2%) and 2018/19 (3.0%).

Annual report  
pages 26/28/29



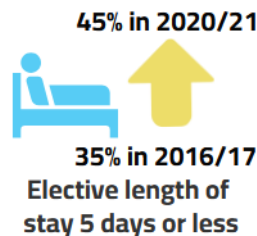
The proportion of people who needed to return to hospital in an emergency within 30 days of their bowel cancer operation has *increased* slightly from **10.3%** in 2016/17. This proportion has been stable over the last 3 years, despite the pandemic. There is geographical variation in 30-day unplanned readmission.

Annual report  
pages 26-29



The proportion of people who need to return to the operating theatre within 30 days of their bowel cancer operation has *reduced* slightly over time from **8.3%** in 2016/17. This is lower than in 2019/20 despite the pandemic. There is more geographical variation in 2020/21 compared to last year.

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pages 24/25/28



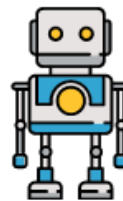
The length of time that people stay in hospital following their operation has *reduced* over time. **45%** of people stay 5 days or less in this audit period, compared to 35% in 2016/17. There is geographical variation in length of stay.



### Laparoscopic "keyhole" surgery

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pages 27 & 30

In 2020, **60%** of people had laparoscopic\* bowel cancer surgery. This had *reduced* from **65%** in 2019 due to restricted use during the early pandemic. There is geographical variation in the proportion of people having laparoscopic surgery.



### Robotic surgery

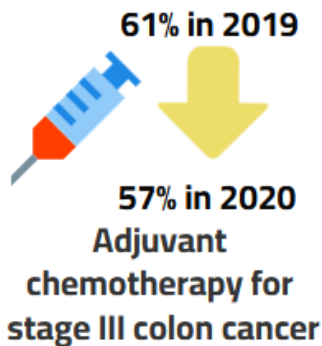
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pages 27 & 30

In 2020, **5%** of people had robotic\* bowel cancer surgery. Despite the pandemic, there was a continued *increase* over time. **0.3%** of people had robotic surgery in 2013. There is geographical variation in the proportion of people having robotic surgery for bowel cancer.

## SURGERY – What can you do?

- You can use the [NBOCA Organisational Survey](#) to have a look at which surgical facilities are available in your local hospitals, for example, robotic surgery.
- You can access [individual hospital results](#) on surgical measures on the [NBOCA website](#).
- [Bowel Cancer UK](#) – great resource to help you think which questions you might like to ask your doctors.

## -CHEMOTHERAPY-



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“Adjuvant” chemotherapy\* is chemotherapy which is given after an operation. Guidelines recommend that people who have stage 3\* colon cancer should be offered adjuvant chemotherapy after their operation. The recommendations for people with stage 3 rectal cancer are less clear.

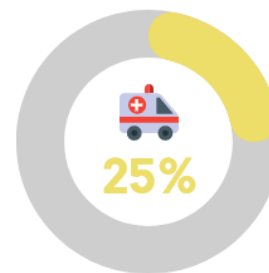
Overall, **57%** of people received adjuvant chemotherapy\* following an operation for stage 3\* colon cancer in 2020. Prior to the COVID-19 pandemic, this proportion had been increasing slowly over time from **58%** in 2016 to **61%** in 2019.

There was considerable geographical variation in the use of adjuvant chemotherapy.

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, vomiting, and infections. “Severe acute toxicity” is defined as any toxicity which requires an overnight stay in hospital.

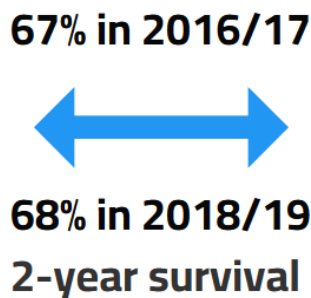
**25%** of people who had adjuvant chemotherapy\* after an operation for stage 3\* bowel cancer had severe acute toxicity\*.

There was wide geographical variation in severe acute toxicity for both groups of people.



**Severe acute toxicity after adjuvant chemotherapy**

Annual report pages 33-34



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Overall, 2-year survival for all people with bowel cancer has *improved* slightly from **67%** in 2016/17 to **68%** in 2018/19. This includes improvements in 2-year survival for people undergoing a bowel cancer operation from **83%** to **85%**, those undergoing a local excision\* from **91%** to **92%**, and those who do not have any surgical procedure from **27%** to **30%**.

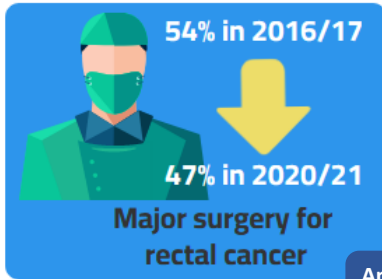
There is geographical variation in 2-year survival rates.

### CHEMOTHERAPY – What can you do?

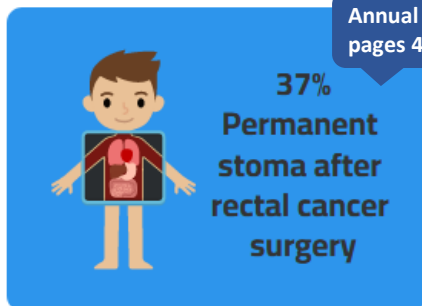
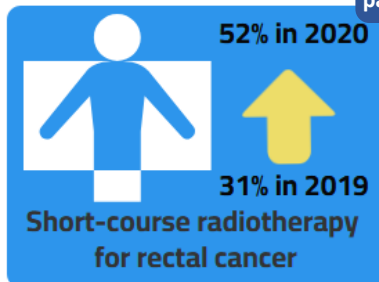
- You can use the [NBOCA Organisational Survey](#) to have a look at which facilities are available in your local hospitals, for example, chemotherapy and radiotherapy.
- If you have chemotherapy for bowel cancer, you should ask your bowel cancer team what side effects you should look out for and who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

## -RECTAL CANCER-

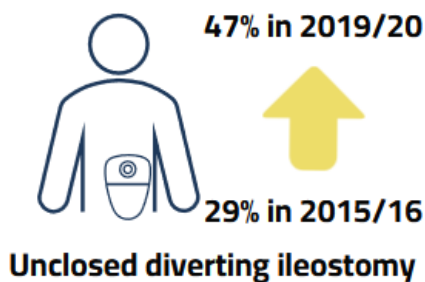
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Since 2016/17, the proportion of people having major surgery for their rectal cancer has reduced from **54%** to **47%**. This is for many reasons including an increased use of surgical techniques that remove cancers without needing to have an operation (“local excision”\*) and an increase in the use of “neo-adjuvant”\* chemotherapy and radiotherapy which can, sometimes, make tumours completely disappear.

Before the pandemic, long-course\* radiotherapy was used most often. However, during the COVID-19 pandemic, radiotherapy practice changed and there was an increase in the use of short-course\* radiotherapy.

There was huge geographical variation in the use of “neo-adjuvant”\* radiotherapy from **24%** to **66%** in patients having surgery for rectal cancer. There was also geographical variation in which type of radiotherapy was used from **26%** to **88%** for long-course\* radiotherapy and **9%** to **60%** for short-course\* radiotherapy.

Overall, **37%** of people will have a surgical procedure that leaves them with a permanent stoma. This is either an “Abdominoperineal resection (APER)”\* or a “Hartmann’s” procedure\*. A stoma is a surgical opening in the abdomen through which the bowel is brought out onto the surface of the skin, in order to collect poo into a bag. The proportion of people having each different type of operation for their rectal cancer has remained relatively stable since 2016/17.

There is huge geographical variation in the proportion of people that have a procedure with a permanent stoma.

People having an anterior section have a temporary stoma called a “loop ileostomy”\*. It is used to allow the join to the two ends of the bowel to heal. A “loop ileostomy” can then be reversed. This means the bowel is joined back together and put back in the abdomen. The proportion of people that have a “loop ileostomy” formed at the time of an “anterior resection”\* for rectal cancer has remained relatively stable since 2015/16.

The proportion of people that do not have their temporary stoma reversed at 18 months after their rectal cancer surgery has *increased* from **29%** in 2015/16 to **47%** in 2019/20. This is likely explained by longer waiting times for surgery since the COVID-19 pandemic. There is also substantial geographical variation in the proportion of people that have their temporary stoma reversed.

### RECTAL CANCER - What can you do?

- If you have rectal cancer, you can ask your bowel cancer team what your treatment options are, including whether surgery, radiotherapy, and/or chemotherapy will be offered.
- If you are having radiotherapy you can ask your doctor what short- and long-term side effects you might expect.
- If you are going to have surgery you can ask if you will need a stoma and whether it will be temporary or permanent.

## The NBOCA 2022 Quality Improvement Programme

The [NBOCA Quality Improvement Programme](#) launched in 2021.

The aim of the Quality Improvement (QI) Programme is to target all aspects of the bowel cancer care pathway and to get all members of the multidisciplinary team\* involved.

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For each metric, there are local and national targets to meet. Each bowel cancer provider will be expected to target quality improvement in 2-3 areas per year where it is felt care could be improved.

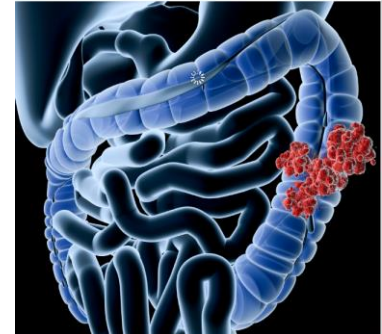
Currently, there are 10 QI targets which are reported for each provider. The proportion of providers meeting each QI target had reduced for 6 out of the 10 targets during the COVID-19 pandemic compared to the previous audit period. This was most marked for the proportion of patients who, 18 months after their rectal cancer surgery, still have a temporary stoma.

The QI target with the lowest proportion of providers meeting it was “the proportion of people seen by a Clinical Nurse Specialist (CNS)”. This is a nurse specialising in the care of people with bowel cancer.

NBOCA National Bowel  
Cancer Audit

National  
Bowel  
Cancer  
Audit

Quality Improvement Plan



## The NBOCA 2022 recommendations

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pages 9-10

### Bowel cancer teams should do the following:

- Review their individual results provided by NBOCA and choose three local quality improvement initiatives to focus on for 2023.
- Focus on trying to improve care and outcomes which have the most geographical variation by trying to:
  - ✓ Reduce the number of people with a temporary stoma at 18 months after an anterior resection for rectal cancer.
  - ✓ Reduce the number of people who need to return for another operation within 30 days of their bowel cancer operation.
  - ✓ Increase the number of people who have “adjuvant” chemotherapy after their operation for stage 3 colon cancer.
- Continue to work to help recover bowel cancer services following the COVID-19 pandemic, including involvement in any new specialist surgical centres.
- Raise awareness of bowel cancer signs and symptoms and encourage people to participate in the NHS Bowel Cancer Screening Programme in England and Bowel Screening Wales.
- Improve the completeness and accuracy of data that is collected for NBOCA about bowel cancer patients to help improve the work carried out.



## Explanation of terms used throughout this report.

An asterix (\*) is used to show where an explanation is provided.

### **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** - 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.

### **DAME DEBORAH JAMES**

- Deborah James was diagnosed with bowel cancer in 2016 (age 35) and sadly passed away in June 2022.
- She was a patron of Bowel Cancer UK from February 2021 and was awarded a Damehood in May 2022 for her inspirational work raising awareness of bowel cancer via her [blog](#), regular column in [The Sun newspaper](#), [BBC podcast](#), best-selling book “F\*\*\* You Cancer”, and social media, TV & radio content.
- She has raised [over 7 million pounds](#) for bowel cancer research.
- Her work supports Bowel Cancer UK’s [“Never Too Young”](#) campaign.