



Colorectal and peritoneal oncology centre

Robotic resections for rectal and anal cancer

This booklet has been written to provide information on robotic rectal resections which involves keyhole surgery to remove the rectum using robot assistance. The Da Vinci surgical system shown below is a highly sophisticated robotic platform with a console where the surgeon sits and carries out the rectal resection. Specialised instruments are passed through small incisions in the abdomen enabling them to be connected to the arms of the robot. These instruments are manipulated within the abdomen with precision as the surgeon moves the master controls at the console.



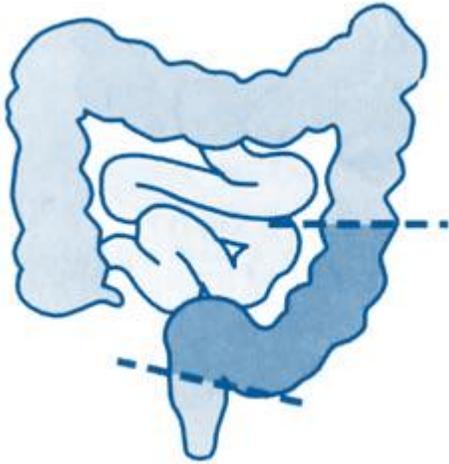
Fig 1 The surgeon's console



Robot with specialised arms

The procedure

Minimally invasive, laparoscopic surgery (keyhole) or robotic surgery is carried out via 4 or 5 small cuts or incisions in your skin rather than a large opening to your body. Rectal resections involve either an anterior resection or an abdominal perineal excision of the rectum (APER). If you have an anterior resection you will have a temporary stoma whereas if you have an APER you will have a permanent stoma.



Anterior resection



Abdominal perineal excision of rectum

Other methods of rectal resection include either open or laparoscopic (keyhole) surgery. These methods do not require or involve robotic assistance.

There are several advantages or benefits to the patient of robotic rectal resections which include:

- shorter hospital stay
- faster recovery time
- reduced post-operative pain
- reduced complications (such as infection, blood loss)
- reduced scarring
- decreased incidence of incisional hernias
- quicker return to normal daily activities.

Robotically assisted rectal resections have several benefits for the surgeon including:

- enhanced high quality vision
- enhanced magnification (6-10 times)
- 3-D visualisation of the operating field
- enhanced dexterity with greater and finer precision.

Consent to treatment

We will ask you to sign a consent form agreeing to accept the treatment that you are being offered. The basis of the agreement is that you have had The Christie's written description of the proposed treatment and that you have been given an opportunity to discuss any concerns. You are entitled to request a second opinion from another doctor who specialises in treating this cancer. You can ask your own consultant or your GP to refer you. Your consent may be withdrawn at any time before or during this treatment. Should you decide to withdraw your consent then a member of your treating team will discuss the possible consequences with you.

Are there any alternatives to this operation?

Other methods for treating rectal cancer are available and include either open or laparoscopic rectal resection. However, with open resections recovery time is longer because of the procedure's invasive nature.

What happens if surgery cannot be performed or completed using robotic assistance?

Sometimes, the minimally invasive methods for rectal resections cannot be performed on some patients in which case the operation is completed by the traditional open technique. This decision is made by your surgeon either before or during the actual operation. Some of the reasons may include:

- obesity
- previous abdominal surgery resulting in dense scar tissue called adhesions
- if the surgeon is not able to clearly see the internal organs
- problems during the operation such as bleeding
- large tumours.

What are the possible complications of rectal resections?

- chest infection
- blood clots to the leg (DVT or deep vein thrombosis) or lungs (PE or pulmonary embolus)
- heart irregularities due to the operation or anaesthetic
- bleeding which may require a blood transfusion
- injury to nearby organs, tissues or nerves
- infection in the wound/port sites
- leak at the anastamotic site (that is, where the colon has been joined together).

What are the specific complications of robotic resections?

- infection in the wound/port sites
- leak at the anastamotic site (that is, where the colon has been joined together)
- port site hernias
- possible conversion to either laparoscopic or open surgery (conversion rate is approximately 5%).

What happens before your operation?

You will be asked to attend for a pre-operative assessment. At this appointment a nurse will:

- ask questions about your past medical history
- assess your heart and lung function
- take a blood specimen for analysis and in case a blood transfusion is needed before and after the operation
- take swabs from your skin to screen for MRSA
- ask if you have any questions about your operation.

The date of your surgery will have been given to you by the time you attend the pre-admission clinic.

Before your surgery you will be admitted to the ward either on the day of surgery or the day before. This enables you to be prepared for your surgery as you may need bowel preparation in the form of an enema or other bowel cleansing solution. You will not be able to eat or drink before the operation. The timing will depend on the time of your surgery.

How long does the operation take?

The operation may take between 4 and 6 hours to complete.

After your operation

Once your operation is complete you will be taken to the recovery area where you will be monitored until your condition is stable. Then you will be ready to return to the ward.

On the ward, you will be able to drink when you feel able. You should be able to start eating within 1 to 2 days depending on how you are feeling.

We will offer you painkilling tablets on a regular basis or you may have a PCA (Patient Controlled Analgesia) in place where patients can control their analgesia.

There will be small dressings to each of the incision sites on your abdomen. These dressings will remain in place for approximately 48 hours.

To reduce the risk of chest infections and blood clots, it is important to get mobile as soon as possible. Getting out of bed and sitting in a chair as well as having short walks around the ward is a good way to start.

When will I be allowed home?

Generally, you will be an inpatient for approximately 7-10 days.

This will enable you to gain the skills and confidence required for you changing your stoma bag (either a colostomy or an ileostomy).

Your surgeon will review you in the follow up clinic 6-8 weeks after your operation.

Going home

On discharge from the ward we will provide you with a supply of painkillers to take home. If you remain uncomfortable when you complete your supply of painkillers, your GP can prescribe more.

To reduce the risk of blood clots, you will be discharged with blood thinning injections and anti-embolism stockings for 28 days after the operation.

The ward staff will arrange for a district nurse to visit you at home to check on your dressings and blood thinning injections.

Getting back to normal

Generally recovery after robotically assisted surgery is much quicker compared to open surgery. It is normal to feel weak and tired on discharge home, mainly because your body is recovering from the stress of surgery. However, it is important to allow yourself some time to return to normal activity.

Gentle exercise such as walking is encouraged upon discharge.

You will be able to start driving again when you are able to make an emergency stop without feeling pain. This may take up to six weeks and you are advised to contact your insurance company before driving again.

Returning to work varies from one person to another. People with jobs that are not physically demanding (for example office work) can often return to work within three weeks of their operation. Physically demanding jobs may require a longer (4-6 weeks) time resting.

You can begin to lift light objects (less than 10lbs or 5kg) after you leave hospital and gradually increase the amount you lift over the next few days. Always stop lifting anything if it causes any pain or discomfort.

Normally, you can eat as normal after your surgery, although it is best to avoid any foods that you know have caused you problems in the past (spicy food or food with large amounts of fibre can cause cramps). Sometimes, solid food can upset you by causing wind or pain. If this happens, dietary supplements or drinks (which you can get from your GP or over the counter from your local Pharmacy) can help.

Key worker

If you need to contact your key worker, please phone Scott Brown, colorectal nurse specialist on **0161 918 7096** or **07824 373785**

If you have any problems after your operation, please contact Ward 10 on 0161 446 3860.

If any of the following occur, contact the ward straight away for advice:

- If you are always feeling sick (nausea) or being sick (vomiting).
- If you are losing blood from your bottom.
- If your body temperature is higher than 101.5°F or 37.5°C.
- If you have any pus coming out of your wound or any increase in redness around the wound.
- If you have an increase in pain.
- If you have diarrhoea that does not go away (more than 5 days).
- If you feel unwell and you are not improving.

Further information

For information about the colorectal and peritoneal oncology centre visit www.christie.nhs.uk/cpoc

Christie information

The cancer information centre at The Christie in Withington stocks a wide range of booklets free to patients, their families and carers and offers a free confidential service for anyone affected by cancer. Contact **0161 446 8100**.

Maggie's centre

The centre provides a full programme of practical and emotional support, including psychological support, benefits advice, nutrition and head care workshops, relaxation and stress management. Contact Maggie's on **0161 641 4848** or email manchester@maggiescentres.org

Macmillan Cancer Support

This is a national charity offering advice and support. Call the freephone helpline **0808 808 0000** (Monday to Friday, 9am to 8pm) or if you are hard of hearing, use the textphone **0808 808 0121**. Macmillan Cancer Support publish booklets which are free and available on their website www.macmillan.org.uk

If you need information in a different format, such as easy read, large print, BSL, braille, email, SMS text or other communication support, please tell your ward or clinic nurse.

We try to ensure that all our information given to patients is accurate, balanced and based on the most up-to-date scientific evidence. If you would like to have details about the sources used please contact **patient.information@christie.nhs.uk**

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For more information about The Christie and our services, please visit **www.christie.nhs.uk** or visit the cancer information centres at Withington, Oldham or Salford.

Contact The Christie Hotline for
urgent support and specialist advice

**The Christie Hotline:
0161 446 3658**

Open 24 hours a day, 7 days a week

The Christie NHS Foundation Trust
Wilmslow Road
Withington
Manchester M20 4BX
Tel: 0161 446 3000
www.christie.nhs.uk

The Christie Patient Information Service
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