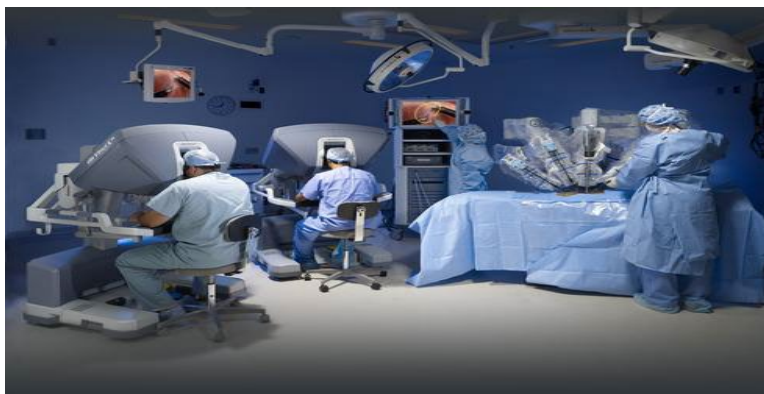


Robotic Assisted Thoracoscopic Surgery (RATS) Procedure

This leaflet should be given to you with a copy of the 'My Lung Surgery Handbook'. Please read both.



Introduction

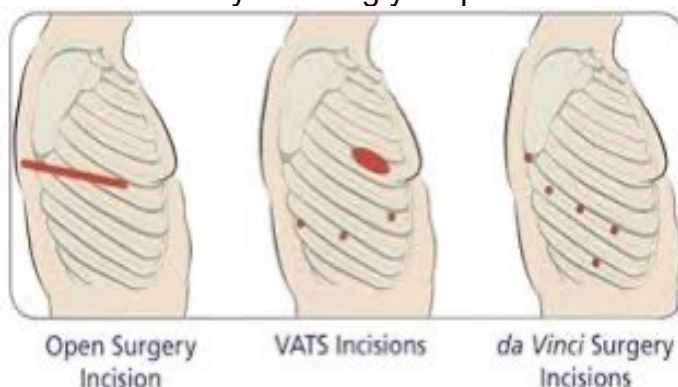
The aim of this leaflet is to help answer some of the questions you may have about Robotic Assisted Thoracoscopy Surgery (RATS) procedure.

Why may your surgeon recommend robotic-assisted surgery?

The advances in medical technology have enhanced doctors' skills to treat various conditions safely and with less discomfort for the patients. The robotic-assisted surgery is an extension of minimally invasive surgical techniques, to improve vision and dexterity in order to undertake complex procedures in the body.

The advantages are:

- Advanced technology which extends the capabilities of the surgeons' eyes and hands.
- 3D High-Definition (HD) views, providing a crystal clear view of the surgical area which is 10x magnified to what the human eye sees.
- Easier access to difficult to reach areas than traditional surgery.
- The instruments are flexible with greater range of motion that simulate the human wrist. The system's built-in tremor-filtration technology allows the surgeon to move each instrument with smooth precision.
- There is a dedicated robotic multidisciplinary team trained and skilled in all key aspects of robotic surgery, who will take care of you during your procedure.



The team

Your procedure will be carried out by a team of several people in the operating theatre. During your operation, each person has an important role and is part of your care team. There is an experienced bedside assistant and one or two console surgeons, as well as multiple theatre practitioners involved in every procedure.

Potential benefits of robotic surgery

Current data suggests that robotic surgery might offer the following advantages:

- Less pain
- Reduced blood loss and need for blood transfusion
- Lower risk of complications
- Lower risk of converting to an open surgery
- Faster recovery and return to normal activities
- Shorter hospital stay

What are the disadvantages/limitations RATS?

There are very few disadvantages to robotics surgery over the traditional method of thoracic surgery which might make your surgeon choose the traditional method. This includes the following:

- The lack of ability to feel the lung directly being operated on. With robotic surgery, the high quality of vision, which is magnified with the camera, often takes away the need to feel the tissue. However, in very few situations, your surgeon might feel the tissue in their hand and therefore choose the traditional methods.
- It takes an additional 15-20 minutes to deploy the robotic arms. All safety checks are adhered to and if there are any malfunctions, your surgeon might switch to a traditional method from the start.
- The extra cost to your procedure and the limited access to technology. This can offset against the potential reduced hospital length of stay in certain operations. In some operations, traditional methods of surgery offer similar benefits to robotic surgery at less cost and more availability. This might make your surgeon choose traditional methods of surgery to offer you a sooner and more cost-effective procedure.
- This is new to our department so your surgery may take a little longer than other minimally invasive surgery.
- Your safety and care are paramount to us. Your surgeon will carefully decide which procedure is the most appropriate and beneficial for you. Occasionally, both approaches are equally effective, and things might change which will favour one over the other.

What happens during robotic surgery (RATS)

The procedure is carried out in operating theatres and under General Anaesthetic (GA), which means you will be asleep for the surgery. Your surgeon will make the cuts (incisions) in your chest and insert the robotic camera (thoracoscope) and any other robotic instruments that are needed to perform the procedure. After the surgeon has finished the surgery, they will insert a small tube (chest drain) into the chest. A chest drain allows any fluid or air that collects inside your chest to

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leak out after the surgery. Any samples of tissue taken from your chest or lungs will be sent to the laboratory for further testing.

Occasionally, although we may plan to use RATS for your surgery, it may not be possible to carry out your operation using keyhole surgery. This means another technique such as an open surgery (Thoracotomy) may be required.

What are the associated risks with RATS?

All surgical procedures and treatments have risks, and there are not specific risks associated with robotic surgery. These risks can happen during open (thoracotomy) and keyhole (video-assisted thoracoscopic surgery). Your surgeon will discuss the benefits and risks of surgery with you before the surgery. Please see your handbook for more information.

What happens if I chose not to have RATS? Any alternatives?

The robotic assisted surgery is an approach to perform the operation and is decided after thorough assessment by your doctor.

If you have any concerns about robotic surgery, your chest doctor and chest surgeon will be happy to answer your queries and explain other surgical options as clearly as possible. You will be an equal partner in decision making and your decision will be respected and supported.

Asking for your consent

We encourage you to be fully involved in the decisions regarding your care and treatment. If you decide to go ahead with the procedure, we will ask you to sign a consent form. This is a legal requirement which confirms your agreement to have RATS and understand all the information given to you.

What happens after RATS?

Recovery: Your recovery will be the same as it would be if you had video- assisted thoracoscopic surgery. Please refer to your handbook for more information.

Please tell us about your experience from your stay

We are committed to improving our services and would like to hear your experiences about your stay with us.

If you require this information in another format, such as a different language, large print, braille or audio version, please ask a member of staff or email interpreting.service@uhb.nhs.uk.