

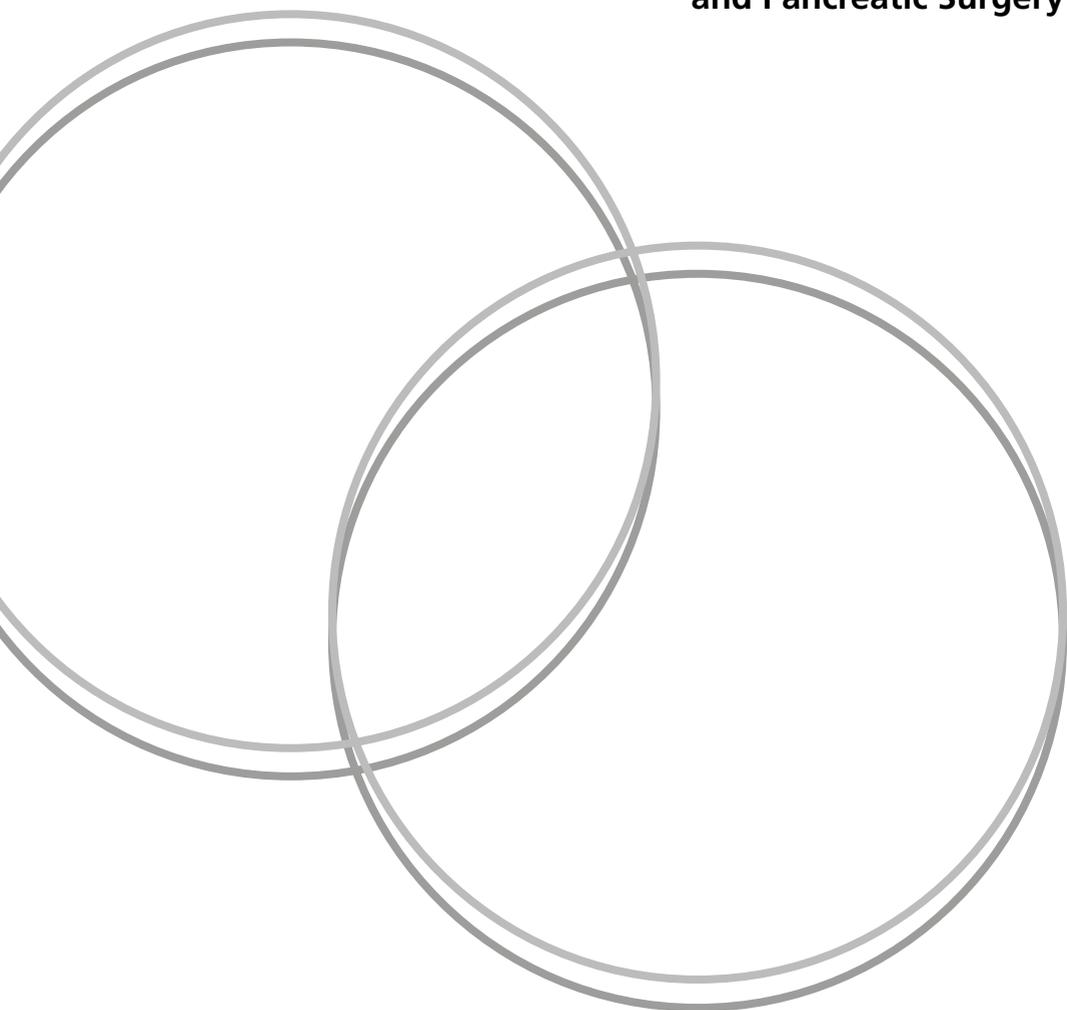


Oxford University Hospitals  
NHS Foundation Trust

# Minimally Invasive Robotic Surgery

**Information for patients**

**Department of Hepatobiliary  
and Pancreatic Surgery**



You have been offered Minimally Invasive Robotic Surgery and this leaflets aims to explain what will happen during surgery and what you might expect during your recovery .

Your surgeon will also give you information specific to your procedure about surgery of the Liver, Pancreas, Spleen, Gallbladder and Bile ducts, which provide more detail.

Your surgeon will discuss with you the reason why this operation is recommended for you, what this involves and the risks and benefits to you. Please ask any questions that you have. This will help you make a decision when agreeing to the operation. You will be asked to sign a consent form saying the you agree to undergo the operation.

**The consent form is a legal document please read it carefully.**

## **Introduction**

Historically, surgeons had to make very large incisions to perform operations on the liver, pancreas, spleen, gallbladder and bile ducts. Laparoscopic (traditional keyhole surgery with straight instruments) surgery has replaced many of these open operations. However, there are cases where laparoscopic surgery is difficult or cannot be done due to the technical challenges of operating with long straight instruments and 2-dimensional view. This is where Minimally Invasive Robotic Surgery has a role and can offer better outcomes.

## **How is it performed?**

Your surgeon will make a few tiny incisions on the abdomen, introduce a 3D camera within the abdominal cavity and introduce gas in the abdomen to separate organs. He/she will then insert further special robotic instruments in the abdominal cavity, mount these on to the robotic arms and perform the operation. The surgeon controls the da Vinci® surgical robot whose instruments have a wide range of movements that allows great precision while cutting the small and delicate structures around the liver, pancreas, spleen, gallbladder and bile ducts. The surgeon sits at a console located in the operating room and controls the robot. The robot mirrors the surgeon's hand movements within the patient and cannot make any movement without the surgeon's command. Using a surgical robot gives your surgeon excellent control whilst not needing to carry out large open operations. This way of operating allows surgeons to safely perform a growing number of complicated surgical procedures for diseases of the liver, pancreas, spleen, gallbladder and bile ducts.

## **Why is this being offered to me?**

Though Minimally Invasive Robotic Surgery is relatively new to the field of hepatobiliary and pancreatic surgery, robots have been around since over 15 years, with over 5000 robots in use worldwide and over a million procedures performed. Your surgical team feel that you are suitable for robotic surgery. Robotic surgery has been shown to reduce the need for patients to be treated in intensive care after surgery; it can reduce hospital stay and promote better and quicker recovery while not affecting the end result of the surgery.

## **What are the benefits?**

Minimally Invasive Robotic Surgery allows surgeons access to the abdominal cavity through small incisions and perform major procedures. These operations were conventionally performed through large incisions which caused issues with pain, infection, scarring and long-term risk of incisional hernias. Patients often needed a prolonged stay in hospital after these operations. Their return to normal life could take time and this can be quicker with robotic surgery. Minimally invasive robotic surgery allows surgeons to perform procedures which are difficult or not possible with keyhole surgery.

This can lead to better results for patients in terms of reduced wound pain, fewer wound related complications, earlier recovery, reduced time in hospital and earlier return to normal life.

## **What are the risks?**

The additional risks with minimally invasive robotic surgery over open surgery are the same as those of laparoscopic surgery; these include the risk of damage to internal organs such as bowel and blood vessels. As with conventional laparoscopic surgery, there is always a chance of conversion to open procedure, and your surgeon will discuss the specific chances of success. Robot specific risks include a slightly longer operating time, but this is compensated by shorter hospital stay.

## **Who is doing my surgery, are they well trained?**

Your operation will be performed by a team of surgeons and theatre staff who have gone through training in the use of da Vinci® Robotic system. A surgeon who is training will be supported by a more senior and experienced surgeon and the robot will then be controlled by 2 surgeons.

## **What are the alternatives?**

The alternatives to robotic surgery are open surgery or in some cases laparoscopic surgery (the usual form of minimally invasive surgery with long straight instruments). Your surgical team will give you more detailed information and discuss these alternatives with you so that you can decide whether you wish to consider the robotic approach.

## **What is the evidence to support the use of this procedure?**

Your surgical team at Oxford has recently started Minimally Invasive Robotic Surgery. There is evidence from all over the world on the effectiveness and safety of robotics. You can ask for more detailed information specific to your particular operation from your consultant. These procedures and their results are closely audited to ensure patients are offered the best possible outcomes.



## Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

Author: Hepatobiliary Team – Surgery Directorate  
December 2021  
Review: December 2024  
Oxford University Hospitals NHS Foundation Trust  
[www.ouh.nhs.uk/information](http://www.ouh.nhs.uk/information)



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