

## HPB

# Minimally Invasive Robotic Liver Pancreas and Biliary (HPB) Surgery

**This is a generic patient information leaflet about Minimally Invasive Robotic Surgery and will be supplemented with procedure specific information about surgery of the Liver, Pancreas, Spleen, Gallbladder and Bile ducts.**

## Minimally Invasive Robotic surgery

Historically, surgeons had to make very large incisions to perform operations on the Liver, Pancreas, Spleen, Gallbladder and Bile ducts. Laparoscopic (keyhole) surgery has replaced many of the open operations. However, there are cases where laparoscopic (keyhole) surgery cannot be done due to technical challenges. This is where Minimally Invasive Robotic Surgery has a role and can offer excellent outcomes.

## How is it performed?

Your surgeon will make a few tiny incisions on the abdomen, introduce a 3D-HD camera within the abdominal cavity and introduce air in the abdomen to separate organs. He will then insert further special robotic instruments in the abdominal cavity, mount these on to the robotic arms and perform the operation.

The surgery is performed using the da Vinci® surgical robot which allows a magnified view of inside of the abdomen and allows great precision while dissecting on very small and delicate structures around the Liver, Pancreas, Spleen, Gallbladder and Bile ducts. The surgeon fully controls the robot from a console located in the operating room. The robot mirrors surgeon's hands movements within the patient and cannot make any movement without surgeon's command.



## Patient Information

Using a surgical robot gives your surgeon unprecedented control in a minimally invasive environment. Utilizing this advanced minimally invasive technology, surgeons can safely perform a growing number of complex surgical procedures for the diseases of Liver, Pancreas, Spleen, Gallbladder and Bile ducts.

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

Minimally Invasive Robotic Surgery is a futuristic approach towards the management of many benign and malignant diseases of the Liver, Pancreas, Spleen, Gallbladder and Bile ducts. You are likely to benefit from the robotic surgery which is an extension of minimally invasive laparoscopic (keyhole) surgery.

We believe the robotic surgery will reduce your requirement for intensive care after surgery, will reduce your hospital stay and you will recover better and sooner from your operation while not compromising on the surgical outcomes.

### **What are the benefits?**

Minimally invasive Robotic surgery allows surgeons access to the abdominal cavity through small incisions and enables them to perform major procedure in a minimally invasive keyhole manner. These operations were conventionally performed through large incisions on the abdomen which caused issues with pain, infection, scarring and long-term risk of incisional hernias. Moreover, patients have to spend time in the intensive care followed by a prolonged stay in the hospital after the open operations. Their return to normal life could take a couple of months and many of them keep on suffering from long term wound related complications.

Laparoscopic (keyhole) surgery has replaced a lot of open surgical procedure leading to lower intensive care and hospital bed requirements and earlier recovery. However, there are certain procedures where laparoscopic surgery is extremely challenging due to compromised ergonomics of its rigid instruments and limited view of the inside of the abdominal cavity.

The minimally invasive robotic surgery allows surgeons to perform procedures which are difficult or not possible laparoscopically (keyhole).

## Patient Information

This will lead to better patient outcomes in terms of minimal wound pain and wound related complications, earlier recovery, reduced time in hospital and earlier return to normal life.

### **What are the risks?**

The risks with minimally invasive robotic surgery are the same as those of conventional laparoscopic (keyhole) surgery which include the risk of damage to bowels, blood vessels and risk of conversion to open procedure.

Robot specific risk could be a slightly longer operating time in theatres which is compensated by a shorter overall hospital stay as the patients will recover sooner than conventional surgery.

### **What are the other options?**

The alternatives to minimally invasive robotic surgery are conventional open surgery or in some cases non-robotic laparoscopic (keyhole) surgery.

More detailed information is available from your Consultant

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

Minimally Invasive Robotic Surgery is a relatively new technique in the treatment of the diseases of the Liver, Pancreas, Spleen, Gallbladder and Bile ducts and presently NICE has not issued guidance on these operations. However, there is evidence from all over the world on the effectiveness and safety of robotics.

More detailed information is available from your Consultant.

### **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 a structured and modular training in the use of da Vinci® Robotic system. They have gone through a mentoring process and their results are closely audited to make sure patients are offered the best possible outcomes.

## Patient Information

UHCW HPB team has now performed many major robotic operations on the Liver, Pancreas, Spleen, Gallbladder and Bile ducts and have demonstrated its safety and efficacy. UHCW is now in a unique position where surgeons from all over the UK come to observe and learn robotic surgery from our team.

## Further Questions

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