

## Information and consent form for Percutaneous Nephrolithotomy (PCNL)

Surname: \_\_\_\_\_

Forename: \_\_\_\_\_

Date of Birth: \_\_\_\_\_

### What is a PCNL?

A PCNL is a minimally invasive operation to treat kidney stones that are too big for extracorporeal shock wave lithotripsy (ESWL) or ureteroscopy. The procedure is normally done for stones bigger than 2cm but it might be done for smaller stones in the kidney or multiple stones in the kidney.

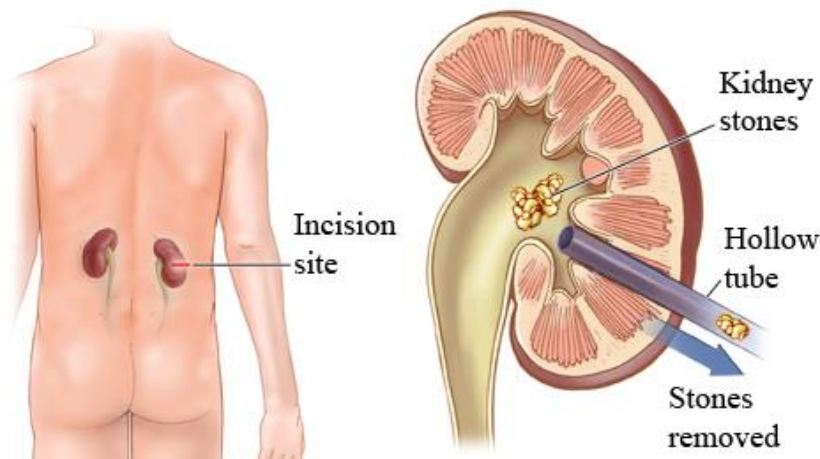
A tract will be made from the skin at the back into the kidney to break the stone up and remove through the tract. After the removal of the stone a drainage tube will be left in for a day or two.

### How is the procedure done?

The procedure is done under general anaesthesia. A cystoscopy is performed where a telescope is inserted into your bladder through the bladder tube (urethra). An x-ray dye will be injected into the kidney via a small tube to map out the inside of the kidney and show the exact location of the stone. You will be turned onto your stomach to get access to the kidney from the back.

With the help of x-ray and ultrasound guidance a needle will be inserted into the kidney. A guidewire will be inserted through the needle. The hole will be stretched over the guidewire until it is big enough to insert a tube and a telescopic camera.

The stone will be located and fragmented into pieces. The pieces will be extracted through the tube. A small tube will be left in the tract that will be removed after a day or two.



### What are the complications associated with the procedure?

- **Bleeding from the kidney.** It may bleed through the nephrostomy tube or inside the abdomen.
- **Infection.** Most of the time the stone contain bacteria. During the operation, this bacteria might cause infection and in some instances it might cause sepsis. Therefore urinary infections will be treated before your operation with broad-spectrum antibiotics.
- **Injury to other organs.** Organs close to the kidney, like bowel, blood vessels, spleen or the lungs might be injured during the surgery. Some of these injuries might require immediate

treatment/open surgery or further surgery. Injury to the chest cavity might require a small tube to help the lung expand again. Permanent damage to the kidney resulting in the loss of the kidney is extremely rare.

- **Failure to remove all the stones.** Sometimes more than one tract will have to be made to get access to all the stones in the kidney. In rare instances it might not be possible to remove all the stones from the kidney, requiring further procedures.

## What should I know before and after the procedure?

### Before the procedure:

- Stop any medication that might be thinning your blood (Warfarin, Aspirin, Clopidogrel). Your urologist will tell you when you should stop this medication and if you should take anything else in its place.
- Stop eating and drinking 8 hours before your surgery.
- Your doctor might request blood tests and x-rays on the day of the surgery.
- You might be required to start antibiotics before your operation. Please tell your doctor if you have any symptoms of infection – burning urine, fever, frequency of urination or urgency to pass urine.

### After the procedure:

- Pain - You will experience some pain and you will be given pain medication. Pain is typically in the flank where the tube is coming out of the kidney.
- Catheter - You will have a bladder drainage tube, a catheter, for the first day or two.
- Tube - A drainage tube will be left in from your kidney after the operation called a nephrostomy tube. The tube will drain urine, any possible blood and stone fragments that might still be in your kidney. The tube will be removed before you go home. A urethral catheter will be inserted into your bladder to drain urine from the bladder for the first day or two.
- Diet - You can start eating as soon as you feel like it and you are not nauseas. It might take a couple of days before your appetite returns to normal.
- Physiotherapy - The physiotherapist will visit you in hospital after the operation. They will help you to walk around if you still have pain or discomfort. The physio will also encourage you to do breathing exercises that will help your lungs to expand and prevent lung infections. The drainage tube might make it difficult to breathe.
- Normal bowel movements - Tell the doctor or the nursing staff if you have not had any bowel movements within the first day or two after your operation. You have to have bowel movement before you go home. If you feel constipated something will be prescribed to help you.

### When at home.

- Moving around - You must try and take daily walks, move your legs around as much as possible. This will decrease your risk of developing blood clots in your legs. Do not stay in bed for the whole day.
- You can start driving after a week or two after you stopped your analgesics (pain medication).
- You can start working after a week or two.
- Avoid vigorous exercise for 2 – 4 weeks.

- Pain - You can take pain medication as you need it. Use the medication for the first 2-3 days after discharge from the hospital, after that only take it when you need it.
- Showering after the operation - You are allowed to shower. Make sure you dry the wound, where the nephrostomy tube was, properly afterwards. The sutures of the wound must be kept closed with a plaster that will be supplied.
- Your urologist will tell you when to follow up at his rooms. Please phone the rooms and arrange a time that will suit you.

#### When to call the doctor.

- If your pain is not under control or is getting worse.
- If you experience any fever or other symptoms of infection.
- If you have a lot of blood in the urine or pass clots of blood from the bladder.
- If you have continuous draining of urine from the wound where the nephrostomy tube was removed.
- If you develop chest pain or difficulty breathing.
- If you have prolonged nausea and vomiting or develop constipation not clearing up with the medication prescribed.

#### Declaration by Doctor

- I declare that I have explained the nature and consequences of the operation to be performed and discussed the risks that particularly concern the patient.
- I have given the patient an opportunity to ask questions and I have answered these.

Doctor's signature: \_\_\_\_\_

Doctor's name: \_\_\_\_\_

Date: \_\_\_\_\_

#### Declaration by patient

- I acknowledge the surgeon has informed me about the procedure, alternative treatments and answered my specific queries and concerns about this matter.

Signature of patient: \_\_\_\_\_ Date: \_\_\_\_\_

**Interpreter's declaration - where needed**

I confirm I have accurately interpreted the contents of this form and the related conversations between the patient and the doctor.

Interpreter's signature: \_\_\_\_\_ Date: \_\_\_\_\_