

Transplant kidney biopsy

This leaflet is for kidney transplant patients and explains what to expect during a kidney biopsy.

What is a kidney biopsy?

It is a minor but very important procedure to take a sample of kidney tissue about the size of half a matchstick. This sample can be examined under a microscope by a specialist pathologist (doctor who studies/diagnoses changes in body tissue and fluids).

Why do I need a kidney biopsy?

A biopsy is usually done because urine and blood tests have shown that the transplant is not working properly (usually the creatinine has risen or there is more protein than usual in the urine). The biopsy is the best test to look for rejection in the transplant kidney, but can also be used to find other causes of kidney damage, such as side effects of anti-rejection drugs.

Before the biopsy

You will need to have blood tests to check your kidney function: clotting (to check the blood is not too thick or thin), and haemoglobin to check for anaemia (whether you have enough red blood cells). You will also have a 'group and save' (a small amount of blood is kept for three days after the biopsy to ensure we know your blood group in the event we need to match for a blood transfusion in an emergency or following complications).

It is essential these tests are done before the biopsy to ensure your safety. If any of these test results are abnormal, it may be necessary to delay the biopsy. In addition, a Covid-19 swab test and a blood pressure check will need to be done beforehand. All of these should be carried out 72 hours prior to the biopsy.

Where is the biopsy done?

The kidney biopsy will be done as a day case, i.e. you will not need to stay overnight. You will be admitted to the CAPD Unit (Albert Ward) at 8.30am, Tel: 0118 322 8555. You will have had blood tests within the last five days to check your kidney function and blood clotting. Please bring any medications that you take regularly. If you take anticoagulants such as Warfarin or Aspirin, you must stop taking them five days before the procedure, but discuss this with your kidney specialist first. Do not drive yourself into hospital or home afterwards and we recommend you have a responsible adult to bring and collect you and stay with you afterwards.

What will happen when I am admitted?

Your nurse will welcome you to the ward. You will be shown to a bed and asked to change into a hospital gown. A doctor will ask you some questions about your general health and examine you. The doctor will consent you for the procedure, ensuring that you understand the reason for

the biopsy, how it will be performed, any risks involved and that you have agreed to have it done.

The nurse will take some checks of your pulse, blood pressure and temperature and ensure you are clear as to what is happening.

What happens next?

The biopsy will be performed by one of the renal team doctors on the ward. You will be asked to lie on your back. The doctor will do an ultrasound scan using a portable machine to check the exact site of the kidney. The skin over your transplanted kidney will be cleaned with a sterile cleaning solution and this area will be covered with a sterile sheet. You will have an injection of local anaesthetic into the skin over the kidney. Once the skin is numb, a special biopsy needle will be pushed through the skin and into the kidney. As the doctor takes the needle out, a small kidney sample comes with it. You will have a dressing placed over the skin where the needle went in, and you will be asked to apply pressure.

You will be required to lie flat for one hour, then remain on bed rest for a further three hours, after which you will be able to return home, providing there are no problems. You will be encouraged to drink plenty of fluids.

Are there any problems that may occur after the biopsy?

Complications of a renal biopsy are rare. The most serious complication is bleeding, and you are monitored after the biopsy to detect this. Changes in pulse rate, blood pressure and blood in the urine after the biopsy may be signs of bleeding. If there are signs of excessive bleeding, you may need to go to the Radiology Department for an ultrasound scan to see if there is a clot outside the kidney. The majority of bleeding is minor and needs no special treatment.

If there is an unexpected amount of bleeding, you may need a blood transfusion, and in very rare cases, a further special X-ray called an angiogram is done to find the bleeding point, and sometimes to stop the bleeding. Very rarely, an operation may be required. Visible blood can appear in the urine in 3-5% cases. Requiring a blood transfusion or angiogram is very rare (less than 1% biopsies).

When will I get the results of the biopsy?

Before you leave the ward, you will get an outpatient appointment for the Transplant Clinic, if you do not already have one. This is likely to be in the next 2-4 weeks. The doctors will then be able to discuss the results of the biopsy with you and any treatment that you may need.

Is there anything I need to know before going home?

You must have passed urine and show no signs of bleeding before being allowed home.

You may have some pain or discomfort after the biopsy. You can take Paracetamol, 1-2 tablets every 8-12 hours, for the first day (following the dosage advice on the packet). **Do not take any aspirin, painkillers containing Aspirin or anti-inflammatory drugs for one week after the biopsy** – unless you have been given other instructions. If you have more severe pain after the biopsy, you should contact the transplant nurses on Albert Ward, Monday-Friday, 9am-5pm. Out of

hours or weekends, please call Victoria Ward.

If you need a sick certificate for your work, you should see your own GP.

If you notice any bright red (fresh) blood in your urine, feel any new discomfort or become faint after you get home, you should contact your GP urgently and tell him or her that you have had the kidney biopsy.

Please give your GP this leaflet if you are unsure. If you are in any doubt please ring the Transplant Nurse on 0118 322 8193 or Albert Ward on 0118 322 8555. At night or weekends please contact Victoria Ward on 0118 322 7476. A renal consultant is available 24 hours a day.

Contacting us

Albert Ward 0118 322 8555

Transplant Nurse 0118 322 8193

Victoria Ward 0118 322 7476 (Out of hours / weekends / Bank Holidays)

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

Department of Renal Medicine, April 2023.

Next review due: April 2025