

Department of Renal Medicine and Transplantation

Information About Your Forthcoming Transplant

This information is for patients who are considering whether to have a kidney transplant. It explains what happens before, during and after a transplant. It also tells you about any risks and side effects involved.

You will already have been given a copy of the booklet: Kidney Transplantation, A Guide for Patients and Relatives. This covers much of the following information in more detail.

How successful are kidney transplants?

The overall success rate of kidney transplants at St George's is some 9 out of 10 kidneys will be working one year after transplantation. At least 19 out of 20 patients would be alive one year after a transplant.

The success rate of transplantation depends on many factors including the following:

- The condition of the patient receiving the kidney.
- The condition of the donor and the kidney.
- The type of donor:
 - Transplants from living donors have a success rate of 97.6%
 - Transplants from a heart-beating donor in Intensive Care 95.7%
 - Transplants from non-heart beating donors (from the Accident and Emergency Department) have a success rate of about 80-85%. There is more information at the end of the leaflet about this type of transplant.
- The drugs used to prevent rejection.

How are kidneys allocated?

A central computer based in Bristol allocates kidneys. In general, the donor and recipient must have the same blood group. Points are given for the closeness of match according to tissue-type and how long a patient has been waiting. At St George's, we also try to match the donor and recipient according to their age. We often do not accept kidneys from an older donor for a young patient.

What is cross-matching?

Before a kidney can be given to you, a final test has to be done. This is the cross-match. A sample of your blood is mixed with the cells of the donor. If there are antibodies in your blood that kill the donor cells, your body will not be able to accept the kidney. Once you are on the waiting list, we need a sample of blood from you every two months to measure the antibody levels in your blood. This is known as the panel reactive antibody level or PRA.

How are drugs used to prevent rejection?

We give drugs (medicines) to patients who have had a transplant to prevent their body rejecting the new kidney. We plan which drug treatments are needed by dividing our patients into 3 categories:

1. Low Immunological Risk:
This covers patients who are having their first transplant **and** who have less than 50% panel reactive antibodies. They do not have any risk factors for high glycaemic risk. This is the risk of developing diabetes after the transplant.
2. High Immunological Risk:
This describes the group of patients having their second or subsequent transplant, **or** those with more than 50% panel reactive antibodies.
3. Low Immunological Risk and High Glycaemic risk:
This group of patients are having their first transplant **and** have less than 50% panel reactive antibodies **and** any of the following:
 - Impaired glucose tolerance shown in a two- hour glucose tolerance test during transplant work up (preparation)
 - Impaired glucose tolerance in the past when treated with steroids or calcineurin inhibitor (a type of drug used in transplantation)
 - Obesity - a body mass index of more than 30. (Your BMI is a measurement of your weight in relation to your height. A normal BMI is between 20 and 25).
 - Your ethnic background is from sub-Saharan Africa (African/African Caribbean).
 - Your ethnic background is from the Indian sub-continent.This group will have their Prednisolone (steroids) discontinued one week after their transplant. This will help to reduce their chance of developing diabetes.

Depending on which group you come under you will receive a combination of some or all of the following drugs to prevent rejection. The drugs used are:

- Tacrolimus - also known as Prograf or FK or FK506. This is taken twice a day at first, and the dose may change according to your requirements.
- Prednisolone - this is taken twice a day at first, and the dose may change according to your requirements
- Mycophenolate Mofetil - also known as MMF
- Basiliximab - also known as Simulect. This is given only twice, once during the operation and then five days later.

Are there any side effects?

These drugs are very powerful and common side effects include the following:

Tacrolimus

- Tremor of your hands
- Hot flushes and tingling
- Increase in blood pressure
- Increase in blood cholesterol level
- Diabetes (usually temporary)
- Nightmares (first 2 weeks)
- Constipation and wind pains (first 2 weeks)

Prednisolone

- Round (“moon”-shaped) face which can change to how you look
- Increase in blood pressure
- Increase in blood cholesterol level
- Diabetes (usually temporary)
- Very rarely – personality change

Mycophenolate mofetil

- Abdominal cramps and/or diarrhoea
- Abnormality of bone marrow function

The side effects are related to the dose of the drugs, which are reduced after the first 3 months. They may be treatable, for example with blood pressure tablets. Many are self-limiting where they will usually go within a few weeks of the transplant and do not need to be treated.

What about other drugs?

You will probably have to continue with some of the medications (such as your blood pressure medications) that you are currently on. On top of that for a short period of time, you may have to take medication to prevent infections. This is because after a transplant, you are more at risk of getting infections. You will either have to take:

- Septrin for 6 months to prevent a common type of chest infection
- Valganciclovir for 3 months to prevent a common viral infection.

As a result of these measures, hardly any of our patients acquire this type chest infection or viral infection.

Some patients may have to start taking blood cholesterol lowering medication as well.

What does the operation involve?

You must come to the hospital as soon as you are informed that there is a kidney for you. It may help to have a relative or friend to accompany you. It will take several hours to make sure you are fit for the operation. You will have a blood test, a chest x-ray and ECG (heart tracing), and be examined by a doctor. The operation will be explained to you and you will be given the opportunity to ask questions.

You will be put to sleep by a general anaesthetic before the operation. You get one kidney which is placed above the groin on either the left or the right side. The operation takes between one and three hours to do. You will be away from the ward for about five to six hours. This includes the time taken to put you to sleep and also to keep an eye on you in the Recovery Room after the operation.

What happens after the operation?

When you wake up, there are several plastic tubes emerging from your body. These can include:

- a catheter placed in your bladder. This is a tube to drain away your urine.
- a line to a vein in your arm. This is used to give you fluids and medications, such as pain killers.
- a line to a vein at the base of your neck. It may be used to give you fluids and medications, such as pain killers. It also helps us to measure the amount of fluid in your body.
- a plastic drain tube by the side of the cut in your abdomen (wound). This is to drain any bleeding from the site of the operation.
- a thin tube (catheter) near the wound to give you a local anaesthetic directly into the wound site. This should help to minimise any pain.

These tubes are placed so that we can look after you better. They are usually removed by the third day after your transplant.

You can expect to stay in hospital for five to ten days if your transplant is straightforward. This is the case for most patients. After leaving hospital you will be seen in the Transplant Clinic, initially three times a week. You will need to come less often as your new kidney settles in to your body.

What investigations will I need after the transplant?

You will initially have a blood test every day to check that the kidney is working properly. On the first weekday after your transplant you will also have an ultrasound scan to check that the kidney is alive and well. Other types of scan may also be carried out to check the kidney has a good blood supply.

What if my body tries to reject the new kidney?

If we suspect that your body may be trying to reject the new kidney, we will take a biopsy of the kidney tissue for examination. A small piece of the kidney is taken through a needle and is then examined under a microscope. A local anaesthetic would be given before the procedure so that you will not feel any pain.

You may require additional treatment if you have some rejection. This involves receiving an injection of another steroid called methylprednisolone each day for three days. You would usually receive this as an outpatient. It is unusual to lose a kidney through rejection, as the new drugs are very powerful. Occasionally other drugs may be used to treat rejection.

Will I need dialysis after the transplant?

A few patients may require dialysis after their transplant, as the new kidney may be slow to start working. It may take several days to several weeks before some kidneys start to work properly. You should not worry if you need to have dialysis after a transplant. If your kidney is slow to start working, you may need to have more scans and biopsies to make sure that the kidney is well and that there is no rejection.

What are the risks and side effects of the operation?

There are risks associated with all major and minor operations, which can lead to serious complications or even death. The transplant operation and the days immediately after it carry the same risks. These will have been explained to you by the surgeon during your pre-transplant assessment. They will be explained to you again at the time of your transplant before you sign the consent form.

In addition, there is a slightly increased chance of getting infections from 'bugs' that would normally not affect you. You will be given tablets to take to reduce this risk. There is also a slight increase in the chance of getting cancer - usually skin cancers. We would advise you to avoid direct sunlight. Additionally, you may have an area of numbness at the top of your thigh or temporary weakness of the leg on the side of the transplant.

Other risks include the transmission of cancer, HIV, and perhaps CJD (BSE). However the risks are very small and the Consultant will discuss these with you fully before the operation.

Two further decisions:

If we have given you this information, it means you are suitable and have decided to have a kidney transplant. A successful transplant will improve your quality of life. You will no longer have to have dialysis or reduce your fluid intake. You will be able to eat and drink almost anything. There are two more decisions we would like you to consider before you come and have your transplant.

A. Non-heart beating (asystolic) kidneys from Accident and Emergency Department

This is a new source of kidney and we are still gaining experience from their use. Unlike kidneys taken from people who die in Intensive Care Units, these kidneys are taken from people who die in the Accident and Emergency Department. The heart would have stopped beating for up to 40 minutes before the kidneys are taken.

The success rate from these kidneys is lower than that for kidneys from living donors, or from patients dying in intensive care units.

You need to decide whether you want to be considered for kidneys from patients dying in the Accident and Emergency Department.

The current **advantages** are:

- there is a shorter waiting time for these kidneys
- the kidney can be allocated by your doctor at St George's

At present, the **disadvantages** are:

- there is a lower success rate: 80% versus 90%
- the transplants are more likely to be slow to start working
- more scans and biopsies are involved after the transplant

B. Clinical Studies on new drugs or new drug combinations

We are constantly trying out new ways to improve the results of transplantation. One important way is to do Clinical Studies comparing new drugs or new combinations against the ones we use at the moment. In these studies, patients are randomly selected to receive either the established drug combination or the new ones. We would have some evidence that the new drugs may be better or the same as the established drugs. You would not be offered drugs or a combination of drugs that we thought would not be as effective. You need to decide whether you want to take part in a clinical study at the time of your transplant.

Whatever the decisions you make, they will have **no** influence on your care at St George's. When you are ready and have made your decision, please fill in the form below.

Any questions?

If you have any questions about kidney transplants or the decisions that you need to make, please contact Helen Gregson (Lead Nurse Renal Transplantation) on telephone 020 8725 1035. You should also inform her if you change your mind about your decision.

Further information

National Kidney Federation: www.kidney.org.uk

Please contact Helen Gregson if you would like another copy of the booklet: Kidney Transplantation, A Guide for Patients and Relatives.

Department of Renal Medicine and Transplantation

Non-Heart Beating Kidneys from Accident and Emergency Department and Participation in Clinical Studies

First Name: Last Name:.....

Date of Birth:

Address:

.....

Post Code:

- A. I wish / do not wish* to be considered for a kidney transplant using a kidney obtained from a Non-Heart Beating Donor from the Accident and Emergency Department.
- B. I would / would not* consider participation in Clinical Studies. Consent for a specific study would be sought on the day of my transplant.

*Please delete as appropriate

I understand that my decisions will not affect the care that I receive from this unit.
I understand that I can change my mind and agree that I will contact Sister Helen Gregson if I do.

Signed: Date:

Please return the completed form to:

Sister Helen Gregson
Renal Offices
St George's Hospital NHS Trust
Blackshaw Road
Tooting
London SW17 0QT

Alternatively you can fax the completed form to 020 8725 2068.