

Patient Information Leaflet

Your Renal Transplant

Your new medications

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Medication

Your body will recognise your new kidney as “foreign” and could try to reject it if you did not take medication to dampen down your immune system.

Your medication will be balanced to reduce your immune system enough to prevent rejection but not enough to stop your body fighting off infections and other diseases like cancer.

You will need to start taking these medications as soon as you have your transplant, and continue them as long as your kidney transplant is working.

On Mayflower Ward we encourage everyone to take charge of their own medication as soon as possible. The nurses will help you get to know your new medication and will encourage you to take it yourself when you feel ready.

This means you will be confident to manage your own tablets when you are discharged home.

We will cover details of the main medication you may be given in the following booklet.

Immunosuppression Medication

There are many medications that can be used to suppress your immune system.

The most common medications at the South West Transplant Centre are:

- Tacrolimus
- Mycophenolate
- Prednisolone

These can be reviewed and changed depending on individual circumstances.

There are many other similar medications that can be prescribed instead including:

- Sirolimus
- Ciclosporin
- Azathioprine

Your pharmacist or doctor can provide you with further information about these if you need to take them but we have not covered them in detail in this leaflet.

Tacrolimus

Also known as:

- Adoport
- Prograf
- Advagraf
- Envarsus
- Tac
- Tacro

Tacrolimus is one of the medications that dampen down your immune system and helps prevent rejection. It is used in a combination with other medication so it is more effective.

Tacrolimus is best taken on an empty stomach, either at least one hour before, or two hours after food.

Some people find it easier to take with food, but avoid fatty food as this affects the absorption of tacrolimus into your body.

It is usually taken twice daily around 12 hours apart but some forms are taken once daily.

People can choose to take their tacrolimus at different times of day, it is important to make sure you take it regularly and do not forget it.

If you miss a dose (and take the twice daily form) you have up to six hours to take it. If you realise you have missed it after that time, wait and take the next dose but **Do Not** take a double dose.

E.g. If you forget your 10 a.m. dose you have until 4 p.m. to take it. If you remember after 4 p.m. you should miss the dose and take the 10 p.m. dose as usual.

Frequently missing doses increases your chance of rejection and losing your kidney transplant.

Avoid grapefruit and grapefruit juice.

Do not take the capsule out of the foil strip until you are ready to take it.

It is important you always take the same brand of tacrolimus, get to know your brand and do not accept a different brand unless told to by your hospital team.

Lots of factors change how your body absorbs tacrolimus and this can change the level of medication in your body. This means we have to monitor the levels very closely in clinic and it is very important we have an accurate level. The best time is just before your morning tacrolimus dose.

- Do not take your tacrolimus on the morning of your clinic appointment.
- Bring your tacrolimus to clinic with you.
- As soon as you have had your blood test you can take your tacrolimus.

Like many drugs tacrolimus has some side effects.

Common side effects can include:

- Increased blood sugar levels or even diabetes
- Headache
- Tremor
- Stomach upset
- High blood pressure
- High potassium
- Chronic kidney problems including kidney damage

Less common side effects include:

- Hair loss
- Acne
- Sleep disturbance
- Numbness/tingling in the hands/feet

Mycophenolate

Also known as:

- Cellcept
- Myfortic
- MMF
- Mycophenolate mofetil
- Mycophenolic acid

Mycophenolate is another medication that dampens down the immune system. It is taken with other medications to prevent your kidney being rejected by your immune system.

Mycophenolate is usually taken twice a day, around 12 hours apart.

It does not matter what time of day you take it but you must take it regularly.

Some patients find splitting the dose into four smaller doses over the course of the day reduces the side effects they get.

It is best if taken with food.

It is ok to take this medication before your clinic appointment as we do not need to check the levels.

If you miss a dose of mycophenolate (and take it twice a day) you have six hours to take the missed dose. If you remember after this time period has passed, you should wait and take the next dose as normal, skipping the missed dose.

E.g. If you take your mycophenolate at 8 a.m. you have until 2 p.m. to take the missed dose. If you remember after 2 p.m. you should wait and take the 8 p.m. dose as normal.

Frequently missing doses of mycophenolate may increase the risk of your body rejecting your kidney transplant leading to failure of your kidney.

Mycophenolate also has some possible side effects.

Common side effects include:

- Reduced white blood cells
- Increased susceptibility to infection
- Diarrhoea
- Vomiting

Less common side effects include:

- Mouth ulcers
- Bruising
- Lymphoma (cancer of the lymph glands)

If you develop a sore throat at any time and/or bruising that cannot be accounted for please go and have a blood test.

There are some important family planning issues with mycophenolate so if you are thinking about starting a family please come and discuss it with us.

Prednisolone

Prednisolone is another medication that suppresses the immune system.

It belongs to a group of medications called 'corticosteroids'.

These are good at suppressing inflammation and are different to the anabolic steroids you might read about in the media that are taken by athletes.

It is best taken in the morning with a glass of water, with or after food.

The dose will be reviewed at your clinic appointments, and will be gradually reduced during the first few months after your transplant.

If you miss a dose, take another one as soon as you remember. If your next dose is due within 6 hours take a dose straight away and miss the next dose.

Never double the dose to make up for a missed one.

E.g. If you normally take your Prednisolone dose at 7 a.m. but forget to take it, you can take another dose at any point up to 1 a.m. the next morning and continue as usual. If you remember at 2 a.m. then take that days' dose early.

Always tell your dentist or other doctors that you are taking steroids.

Carry a steroid card with you.

STEROID TREATMENT CARD

I am a patient on STEROID treatment which must not be stopped suddenly

- Always carry this card with you and show it to anyone who treats you (for example a doctor, nurse, pharmacist or dentist). For one year after you stop the treatment, you must mention that you have taken steroids.
- If you become ill, or if you come into contact with anyone who has an infectious disease, consult your doctor promptly. If you have never had chickenpox, you should avoid close contact with people who have chickenpox or shingles. If you do come into contact with chickenpox, see your doctor urgently.
- Make sure that the information on the card is kept up to date.

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- If you have been taking this medicine for more than three weeks, the dose should be reduced gradually when you stop taking steroids unless your doctor says otherwise.
- Read the patient information leaflet given with the medicine.

Do not stop taking prednisolone suddenly unless advised to by your doctor as this can make you seriously ill. Common side effects of prednisolone include:

- Indigestion or heart burn
- Stomach ulcers
- Thrush (fungal infections)
- Thinning of the skin
- Bruising
- Increased appetite and weight gain
- Increased vulnerability to infection
- Nausea

Less common side effects include:

- Muscle weakness
- Thinning of the bones (osteoporosis)
- High blood pressure
- Acne
- Facial weight gain (moon face)
- Hair growth
- Disturbed sleep pattern and insomnia
- Depression and other mood changes
- Cataracts
- Raised blood sugars and diabetes

Other medications used after your kidney transplant

Alongside the medication that you will be taking to stop rejection of your kidney transplant, you will also be prescribed several other medications.

These are usually to prevent you from developing problems in the future and help keep you healthy.

Co-trimoxazole

This is also known as septrin. This is given for the first six months after your transplant when the amount of your immune suppressing drugs is at their highest level.

It helps prevent against chest and urine infections.
Side effects can include nausea, diarrhoea and headaches.

Aspirin

Aspirin helps reduce the risk of clots forming in the new kidney.
The low dose can also help to protect against heart attacks and strokes.

The dispersible forms of aspirin can be swallowed whole with water.

Potential side effects can include

- Irritation of the stomach lining causing indigestion
- Stomach ulcers or bleeding in the stomach
- Bleeding wounds may take longer to clot
- Wheezing/coughing or a skin rash in sensitive people

Ranitidine

This medication lowers the amount of acid produced inside your stomach. This can help prevent the stomach irritation from aspirin or prednisolone from developing into stomach ulcers.

You may be able to stop taking ranitidine once the prednisolone dose is reduced.

Sometimes people are on other anti-acid medication prior to their transplant (such as omeprazole) and these may be continued depending on the individual circumstances.

Possible side effects can include drowsiness, sleep disturbance or headaches but are very rare.

Valganciclovir

Valganciclovir (also called 'valgan') is a medication that prevents or treats a viral infection called cytomegalovirus (CMV), see the 'After you leave hospital' booklet.

Valganciclovir should be taken with food.

Not everyone is at risk of developing CMV after their transplant so not everyone will need to take this medication. It will depend on whether you have been exposed before and whether you are immune to CMV.

Potential side effects can include

- Nausea or vomiting
- Diarrhoea
- Headache
- Tiredness
- Rash

Statins

We all need a certain amount of cholesterol to allow our body to work correctly. Too much cholesterol increases your risk of heart attacks, strokes and other blood vessel problems.

If we feel you are at increased risk of these problems due to your individual circumstances you may be prescribed a statin.

They work by reducing the amount of cholesterol your body produces as well as changing how it is broken down.

Statins should always be taken last thing at night as our bodies produce most of our cholesterol whilst we are asleep.

If you are prescribed simvastatin or atorvastatin, avoid drinking grapefruit juice.

Potential side effects can include headaches, altered liver function blood tests and muscle problems. A simple blood test can tell if your muscle aches are related to your statin so talk to your doctor straight away, if you develop problems.

Blood pressure tablets (anti-hypertensives)

Having high blood pressure is bad for your kidney transplant and can damage it slowly over a long period of time. It can also cause heart attacks, strokes, blood vessel problems or heart failure.

There are many different types of blood pressure medication and they need to be tailored to the person taking them.

People with high blood pressure often feel the same as people without high blood pressure so it can sometimes be hard to remember to take your medication. It is really important to take it every day and to ensure your blood pressure is well controlled.

Medication side effects

Unfortunately all medication can cause a large variety of side effects, some of these are common and some are very rare. Please remember that many patients do not develop side effects and in those that do they often only last a short while.

All of your medications will have been prescribed with the aim of keeping you and your kidney transplant as healthy as possible and can cause serious problems if they are stopped (or the dose changed) without talking with a member of the transplant team first.

There are often techniques we can use that can keep the benefit of the medication but also reduce the side effects. Sometimes we will change to alternative medications that can do a similar job as different people often respond differently to different medications.

Always discuss with your transplant doctor first as they can often help.

Managing your tablets

Some of your medication (such as tacrolimus) need to be taken at the same time of day to work properly. It is also very important that no doses are missed (there is information elsewhere in this booklet about what to do if you miss a dose).

Altogether this means it is really important to get into a routine when taking your medication. People find that making time to take your medication part of your everyday routine can help you to remember them.

Below are some tips that have helped other transplant patients.

- Take your medication before/after brushing your teeth
- Take your medication with your breakfast
- Store the medication in a place you will always visit, by the front door keys, by the kettle, next to your toothbrush
- Get a weekly pill box and put all of your weekly tablets in it on a particular day so you do not forget them (remember to keep tacrolimus in its foil packet)

Even missing a few doses of your immune suppressing medications can give your body a chance to reject your new kidney which can cause permanent damage.

Herbal medications and supplements

Some of your transplant medications rely on having very exact levels in your body. This level can be changed by other medications which is why your doctors will be very careful about what they prescribe.

Herbal medication, alternative medication and some supplements can also interact with your medications, changing the levels in your blood. Most medication will be ok to take but it is important that you chat with your doctor/pharmacist before starting anything that has not been prescribed by your doctor.

Technology & medication

Technology has also moved on a lot in the last few years and there are now lots of programmes and apps which can help you to remember to take your medication.

Different people find different apps helpful and the transplant team will be able to let you know about the ones we are currently suggesting.

Some patients find that setting different alarms on their phone for different times of the day can help them to remember to take their tablets.

Other apps can help you keep track of your blood pressure readings and the Patient View website allows you to see your own blood test results.

Ordering your medication

Some of the medications you will take for your transplant are extremely specialised and your GP will not be able to prescribe them.

You can obtain them through our renal pharmacist when you visit the transplant clinic. These medications include tacrolimus, mycophenolate, prednisolone and valganciclovir.

To begin, you will be able to collect the medication from Lloyds outpatients pharmacy (near the main entrance of Derriford Hospital). Once you are being seen less frequently, then you will be able to have it sent out to you at home but you will still need to order it from the renal pharmacist.

Always remember to check how much medication you have at home before you come to clinic so you know whether you need to order medication.

Remember to order your medications when you visit the clinic

Your notes:



This leaflet is available in large print and other formats and languages.

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