

Preparing for your kidney transplant: medication information

Following your kidney transplant, you will take a lot of new medicines. These are vital to the success of the transplant and will become an important part of your life. It is important that you have a good understanding of your medicines including how to take them properly and what side effects to expect.

Anti-rejection medicines

The most important group of medicines following a kidney transplant are those that suppress your immune system; otherwise known as ‘immunosuppressant’ or ‘anti-rejection’ medicines. Without these your body would reject your kidney within a few days.

Our immune system protects the body against infection. It does this by recognising foreign material such as bacteria or viruses which cause infection, and releasing a variety of chemicals and white blood cells to destroy them.

However, following a kidney transplant, your immune system will recognise your new kidney as being foreign, and will respond to destroy it; this is called ‘rejection’. Therefore, we use anti-rejection medicines to prevent rejection of the kidney.

You will be taking a combination of anti-rejection medicines. The most commonly used anti-rejection medicines are tacrolimus, mycophenolate and prednisolone.

Tacrolimus (Prograf® or Advagraf® XL)

Action

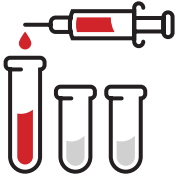
Tacrolimus helps to prevent rejection of your kidney by stopping white cells or T-cells from becoming active in your blood and attacking your transplanted kidney.

Dose

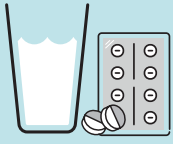
Tacrolimus needs to be taken twice a day, about 12 hours apart, at the same time each day.

The level of drug in your blood is tested regularly to make sure we are giving you enough to prevent you rejecting your kidney but not too much to cause toxicity. Due to this, your dose of tacrolimus changes regularly according to your blood levels.





You will start having blood levels taken every morning once you are discharged from the ward – **You will be asked not to take your tacrolimus until after your morning blood test.** The result of the tacrolimus level will not be known until late in the afternoon therefore you will be called each afternoon to be given your dose. After a few months, your levels should even out and change less often.



Food can also have an effect on the absorption of your tacrolimus. It can be taken with or without food but we advise that you keep it consistent, that is either always take it with food, or always take it on an empty stomach.

Possible side effects

- Diabetes
- High blood pressure
- High cholesterol
- Tremor
- Tingling or a burning sensation of the lips, fingers or toes
- Headache
- Blurred vision
- Hair loss



Do not eat or drink grapefruit as this increases the absorption of tacrolimus and increases the risk of side effects.

Generic brands of tacrolimus are available. **They may not be identical to Prograf® and you should not change brands unless you discuss this with your transplant doctor first.**



A long acting version of Prograf® called Advagraf® is also available. This is not the same as Prograf® and they cannot be interchanged.

Mycophenolate

There are 2 different formulations of mycophenolate available; mycophenolate mofetil and mycophenolate sodium. You will be prescribed one of these brands however they are not the same.

Do not swap to another brand unless told by your doctor.

Action

Mycophenolate helps to prevent rejection of your kidney by acting on the bone marrow to decrease the production of white blood cells that can attack transplanted organs.

Dose

Mycophenolate is taken twice a day, about 12 hours apart, at the same time each day. It should be taken with food and swallowed whole.

Mycophenolate mofetil

Is available as 250mg capsules and 500mg tablets



250mg



500mg

Mycophenolate sodium

Is available as 180mg and 360mg tablets



180mg



360mg



Alert !

Mycophenolate should **not be taken during pregnancy** therefore it is important to use effective contraceptive measures while you are taking it and for 6 weeks after stopping.



Possible side effects

- Nausea, vomiting, diarrhoea
- Low white cell count
- Low haemoglobin
- Abdominal pain



Prednisolone (Panafcortelone® / Solone®)

Action

Prednisolone decreases the body's inflammatory response and helps to prevent rejection of your kidney.

Dose

Your initial dose is based on your weight and height and will be slowly reduced over time. Prednisolone is available as 1mg and 5mg tablets. You will take this in the morning, preferably with food.



Possible side effects

- Increased appetite, which can lead to weight gain
- Increase in blood sugar levels
- Mood swings, nervousness, irritation, trouble sleeping
- Acne
- Thin skin and easy bruising
- Hot flushes
- Osteoporosis
- Cataracts
- Fluid retention
- Upset stomach or reflux

Other Medications

You will be on a number of other medications following a kidney transplant. As you will be immunosuppressed, you will need to take some medications to prevent infections. You will also need to take some other medications to limit the side effects of the anti-rejection medications.



Trimethoprim / Sulphamethoxazole

This antibiotic is given once daily to protect you against a rare chest infection known as pneumocystis pneumonia (PCP/PJP). This medication is to be taken lifelong.



Valganciclovir

Valganciclovir is an anti-viral medication used to prevent cytomegalovirus (CMV). If you are at risk of developing this infection you will need to take this medicine for 3 to 6 months after your transplant. Your dose will change depending on your level of kidney function. The main side effects of valganciclovir include anaemia, low white cell count and low platelet count.

Alert !



Valganciclovir should not be taken during pregnancy and both women of childbearing potential and male patients on this medication must use effective contraception while on treatment and for 3 months after stopping treatment.



Valaciclovir

Valaciclovir is used for the prevention or treatment of certain viral infections such as cold sores and shingles. It may also be used to prevent Epstein Barr Virus (EBV) in patients who have not previously been exposed to it.



Amphotericin Lozenges

Following kidney transplant, you are at increased risk of getting oral fungal infections. You will be prescribed amphotericin lozenges 4 times a day for 1 month to reduce the risk of this.



Pantoprazole or Famotidine

Some of your anti-rejection medications can cause stomach irritation or indigestion. Either pantoprazole or famotidine will be prescribed to reduce stomach acid production and lessen this problem.



Aspirin

You will need to take aspirin for 3 months after your transplant to prevent any blood clots from forming.



Cholecalciferol

Cholecalciferol is a vitamin D supplement which helps strengthen your bones.



Ferrous Sulphate

Ferrous sulphate is an iron supplement which is used to increase your haemoglobin. It is usually continued for about a month, until your haemoglobin levels return to normal.

If you have been on erythropoietin replacement (Aranesp® or Eprex®) before your transplant this will usually be stopped. Your new kidney is now able to produce its own erythropoietin and over a few weeks to months your haemoglobin levels should improve.



Risedronate or Zoledronic Acid

Risedronate and zoledronic acid are medications that are used to prevent or treat osteoporosis.

Risedronate is taken once a week. It must be taken first thing in the morning, at least 30 minutes before your first meal. You should take your risedronate with a full glass of water and you must remain in an upright position for 30 minutes after taking help to avoid irritation to your oesophagus. Zoledronic acid is an infusion that is given over a few hours – this medication only needs to be given every few years.



Furosemide

Furosemide is used to drive your kidney to produce urine and to remove any excess fluid from your body. Your doctor will assess your fluid status and your dose will vary depending on how 'wet' or 'dry' you are.

Electrolytes

Following kidney transplant you may need supplementation of electrolytes such as calcium, magnesium, potassium, phosphate or sodium bicarbonate. The dose of these medications will vary according to your blood tests. Calcium and magnesium are phosphate binders so they **should not be taken at the same time as phosphate**. They are best taken away from meals.

Drug interactions

Many medicines can damage your new kidney or interact with your transplant medicines. This could lead to rejection of your kidney or increase the chance of side effects from your transplant medicines. This includes prescription medicines, 'over the counter' medicines, herbal and natural medicines. It is important that any doctor, pharmacist or dentist who is treating you knows that you have had a kidney transplant and which medicines you are on. **No herbal or natural medicines** should be taken unless discussed with your transplant doctor and the pharmacist.

How long will you need to take medication?

You will need to take anti-rejection medication for the life of your new kidney. **Never stop taking your tablets even for a short time**. If you do there is a high risk of rejection and you will be at risk of losing your kidney entirely or at least reducing its health and life.



If you have missed a dose you must inform your clinic nurse or doctor as this may affect your blood levels.



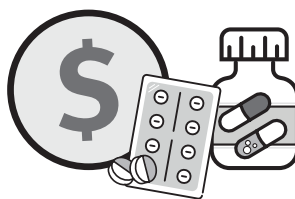
What should I do if I miss a dose?

If you forget to take a dose, take it as soon as you remember unless it is time for your next dose. Do not double up on dose.

Cost and access to medication

Normal PBS prices apply:

- Non- concession patients pay \$30.00
- Concession patients pay \$7.30



The PBS Safety Net threshold applies – ask your pharmacist for more information.

Scripts can be organised through your specialist or general practitioner and supplies can be obtained from your local hospital or community pharmacy.

Note: some medications are only available from your local Queensland Health pharmacy.

Medications taken before kidney transplant

Most medications taken before transplant will not be needed after transplant however some may need to be continued. Please bring your current medications when you arrive for your transplant.

Generic alternatives

Generic alternatives are available for many of your anti-rejection medications. **These are not equivalent and therefore not suitable for substitution.** Changing to generic alternatives could result in different medication blood levels and could lead to rejection of your transplant or medication toxicity.

Where can I get more information?

Every person is different. The doctor who looks after your testing or the kidney transplant unit can give you more information.

Contact us

Transplant Ward (4BT)	Phone: (07) 3176 2646
Pharmacy	Phone: (07) 3176 2557
Transplant Outpatients	Phone: (07) 3176 2615
Transplant Coordinator	Phone: (07) 3176 7769
	Phone: (07) 3176 7397

