



Azathioprine for renal transplant

This leaflet is about the use of azathioprine to prevent rejection after renal (kidney) transplant.

This leaflet is for parents and carers about how to use this medicine in children. Our information sometimes differs from that provided by the manufacturers, because their information is usually aimed at adults. Please read this leaflet carefully. Keep it somewhere safe so that you can read it again.

Do not stop giving azathioprine as your child may reject their transplanted kidney.

Name of drug

Azathioprine

Brand names: Imuran, Azamune

Why is it important to take this medicine?

Azathioprine belongs to a group of medicines called immunosuppressants. It works by helping to stop your child's immune system from attacking (rejecting their transplanted kidney. This will allow the new kidney to work normally.

What is azathioprine available as?

- **Tablets:** 25 mg (orange), 50 mg (yellow); Imuran tablets contain lactose
- **Liquid medicine** can be ordered specially from your pharmacist; this may contain a small amount of lactose

When should I give azathioprine?


Azathioprine may be given **once or twice** each day. Your doctor will tell you how often to give it.

- **Once a day:** this is usually in the morning OR the evening.
- **Twice a day:** this should be once in the morning and once in the evening. Ideally, these times are 10–12 hours apart, for example some time between 7 and 8 am, and between 7 and 8 pm.

Give the medicine at about the same time(s) each day so that this becomes part of your child's daily routine, which will help you to remember.

How much should I give?

Your doctor will work out the amount of azathioprine (the dose) that is right for *your* child. The dose will be shown on the medicine label.

 **It is important that you follow your doctor's instructions about how much to give.**

How should I give it?

Give azathioprine after your child has eaten and with a glass of water.



Tablets should be swallowed with a glass of water, milk or juice. Your child should not chew the tablet.

You can crush the tablet and mix it with a small amount of soft food such as yogurt, honey or jam. Make sure your child swallows it straight away, without chewing. Wash your hands and all equipment used thoroughly afterwards to make sure that no-one else takes any of the medicine.



Liquid medicine: Measure out the right amount using an oral syringe or medicine spoon. You can get these from your pharmacist. Do not use a kitchen teaspoon as it will not give the right amount.

When should the medicine start working?

The medicine will start working after a few hours, although you will not see any difference in your child.

What if my child is sick (vomits)?

- If your child is sick less than 30 minutes after having a dose of azathioprine, give them the same dose again.
- If your child is sick more than 30 minutes after having a dose of azathioprine you **do not** need to give them another dose. Wait until the next normal dose.

What if I forget to give it?

If you usually give it once a day

Give the missed dose when you remember during the day. You do not need to wake up a sleeping child to give a missed dose. You can give the missed dose in the morning. Only give the missed dose at least 12 hours before the next dose is due.

If you usually give it twice a day

If you remember up to 4 hours after you should have given a dose, give your child the missed dose. For example, if you usually give a dose at about 7 am, you can give the missed dose at any time up to 11 am. If you remember after that time, do not give the missed dose. Just give the next dose as usual.

 **Never give a double dose of azathioprine.**



What if I give too much?

It may be dangerous to give too much azathioprine. If you think you may have given your child too much azathioprine, contact your doctor or local NHS services (details at end of leaflet) or take your child to hospital. Take the medicine container or packaging with you, even if it is empty. This will be useful to the doctor. Have the medicine packet with you if you telephone for advice.

Are there any possible side-effects?

We use medicines to make our children better, but sometimes they have other effects that we don't want (side-effects).

Side-effects you must do something about

-  If your child gets flu-like symptoms, sore throat, or unusual bleeding or bruising, contact your doctor, as there may be a problem with your child's blood.
-  If your child starts being sick every few hours, has stomach pains, is very sleepy or has jaundice (the skin or the whites of the eyes look yellow) take them to your doctor or hospital straight away as there may be a problem with your child's liver.

Other side-effects you need to know about

Your child may get these side-effects when they first start taking azathioprine. They will usually settle down within a week or so as your child's body gets used to the medicine. Continue to give azathioprine to your child as your doctor has told you to. Contact your doctor if the side-effects go on for longer than a week.


- Your child may feel sick (nausea) and have some diarrhoea. It may help to give azathioprine with some food, or shortly afterwards.
- Your child may feel less hungry (lose their appetite). Encourage them to eat small meals often.

There may, sometimes, be other side-effects that are not listed above. If you are concerned, contact your doctor.


Can other medicines be given at the same time as azathioprine?

- You can give your child medicines that contain paracetamol or ibuprofen, unless your doctor has told you not to.
- Azathioprine should not be taken with some medicines that you get on prescription or from a pharmacy. Check with your doctor or pharmacist **before** giving any other medicines to your child. This includes herbal or complementary medicines.

Is there anything else I need to know about this medicine?

 Your child will need to take this medicine all the time to stop rejection of their transplanted kidney. Do not stop giving them azathioprine without talking to your doctor first.

- Azathioprine affects your child's immune system so they may get more infections such as chest infections, coughs and colds, and they may take longer than usual to fight these off. Try to keep your child away from people with serious infections if you can, although they can still go to school and nursery as usual.

 If your child comes into contact with anyone who has chickenpox, shingles or measles, contact your doctor straight away, as they may need special preventative treatment.

- Your child will need regular blood tests to check whether azathioprine is affecting their blood or liver and to check their transplanted kidney is working. These tests will need to be done every week for the first month that your child is taking azathioprine and then at least every 3 months.
- Protect your child's skin from strong sunlight by dressing them in long-sleeved tops and trousers and a hat, and using high-factor sunscreen (at least SPF 30). This is because there is a theoretical risk (but not proven) of


your child getting some types of cancer, including skin cancer, when they take azathioprine for several years.

- If your child is due to have an immunisation (vaccination), tell the nurse or doctor that your child is taking azathioprine.
- Azathioprine may harm an unborn baby. If your daughter is sexually active, it is very important that she uses adequate contraception to prevent unplanned pregnancy. The oral contraceptive pill can be used safely in woman or girls taking azathioprine. If your daughter is worried that she may be pregnant, it is important that she sees your family doctor as early as possible. She should keep taking her medicine until she sees her doctor.

General advice about medicines

- Try to give medicines at about the same times each day, to help you remember.
- Only give this medicine to *your* child. Never give it to anyone else, even if their condition appears to be the same, as this could do harm.

If you think someone else may have taken the medicine by accident, contact your doctor straight away.

 Make sure that you always have enough medicine. Order a new prescription at least 2 weeks before you will run out.

- Make sure that the medicine you have at home has not reached the 'best before' or 'use by' date on the packaging. Give old medicines to your pharmacist to dispose of.
- When you get a new prescription of liquid medicine, check what strength medicine you have and how much to give your child, as it may be different from the previous batch.

Where should I keep this medicine?

- Keep the medicine in a cupboard away from heat and direct sunlight. It does not need to be kept in the fridge.
- Make sure that children cannot see or reach it.
- Keep the medicine in the container it came in

Who to contact for more information

Your doctor, pharmacist will be able to give you more information about azathioprine and about other medicines used to prevent transplant rejection. You can also get useful information from:

England: NHS 111 - Tel 111 - www.nhs.uk

Scotland: NHS 24 - Tel 111 - www.nhs24.scot

Wales: NHS 111 Wales - Tel 111 - www.111.wales.nhs.uk

Northern Ireland: NI Direct - www.nidirect.gov.uk

Transplant Kids - www.transplantkids.co.uk

www.medicinesforchildren.org.uk



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The primary source for the information in this leaflet is the British National Formulary for Children. For details on any other sources used for this leaflet, please contact us through our website, www.medicinesforchildren.org.uk

We take great care to make sure that the information in this leaflet is correct and up-to-date. However, medicines can be used in different ways for different patients. It is important that you ask the advice of your doctor or pharmacist if you are not sure about something. This leaflet is about the use of these medicines in the UK, and may not apply to other countries. The Royal College of Paediatrics and Child Health (RCPCH), the Neonatal and Paediatric Pharmacists Group (NPPG), WellChild and the contributors and editors cannot be held responsible for the accuracy of information, omissions of information, or any actions that may be taken as a consequence of reading this leaflet.