



Information for
patients and
carers

**Immunosuppression Medication and
Monitoring Drug Levels**

**Tacrolimus, Cislosporin and
Sirolimus**

This leaflet explains how to obtain accurate drug levels, also known as ‘trough’ levels, for your immunosuppressive medication.

Why do we need to monitor drug levels?

Monitoring the level will determine whether the dose of these drugs is correct or whether it needs to be changed. High levels increase your risk of side effects, including damage to your kidney. Low levels expose you to greater risk of rejection if you have a transplant or of deterioration of your medical condition.

What is a trough level?

This blood test identifies how much drug is in your system at that particular time and is known as a “trough level”. The word “trough” relates to the fact that the test measures the concentration of the drug in your blood when it is the lowest, i.e. just before the next dose of your medication is due.

When is the blood test done?

Drug	Timing of blood test
Adoport, Prograf & Neoral	A Blood test should be done in the morning 12 hours after taking your evening dose . For example, if you take your drug at 2100 hours, you should aim to have a blood test at around 0900 hours the following morning, prior to taking the morning dose.
Envarsus, Advagraf & Rapamune	A Blood test should be done 24 hours after your dose . For example, if you take your drug at 0900 hours, you should aim to have blood test at around 0900 hours the following morning, prior to taking the next dose.

How often is the test done?

Such a test will be done regularly, depending on your individual circumstances. It is usually performed prior to each clinic visit or 1 week following a change in the dose of your medication.

Where is the test done?

The blood test can be done at one of the blood clinics at Royal Preston Hospital or Chorley Hospital along with your routine blood tests. Alternatively they can be done at the locality provided locally for example a local hospital, blood test clinic or GP surgery. The most important thing is that it is taken at the correct time.

What affects the trough levels?

- Mistakenly taking the drug just before the blood test (in this case the result will be very high and misleading)
- Diarrhoea and vomiting (you need to seek medical help early on if you are vomiting more than once as the drugs may not be absorbed)
- There are a number of medications which can affect the drug levels. Please consult your kidney doctor or transplant pharmacist if you have been prescribed a new medication by anyone else and also before you buy any over-the-counter or herbal medications
- Please do not eat grapefruit or drink grapefruit juice as this can also affect drug levels.

How do I find out the results?

Your results will be discussed in clinic. You can also access results via RenalPatientView, our internet-based system that allows patients to access their results. Your kidney doctor or transplant nurse can give you enrolment forms. Otherwise you can contact your kidney doctor or transplant nurse for your results. Results will usually be available within a few days.

What are normal values for the test results?

There is no normal result for these tests, your kidney doctor will determine the target range; for example what range of blood levels is desirable. You can ask your kidney doctor if you want to know your current target levels.

What if the result is too high or too low?

Your kidney doctor, transplant pharmacist or nurse will either inform you to repeat the test or inform you of any changes required in your dose, either in writing or via telephone or both.

What if I miss a dose?

Please contact your kidney doctor for advice if you miss a dose. Please do not double the dose to catch up.

Contact details

Should you require further advice or information please contact:

Renal Transplant patients

Kidney Transplant Team

Tel no: 01772-523475 (answer machine)

Email: RenalPost-TransplantTeam@LTHTR.nhs.uk

Transplant pharmacist
Tel no: 01772 522668
Email: transplant.pharmacy@lthtr.nhs.uk

Non-Transplant patients – please contact your Consultant via the secretary.

Sources of further information

www.lancsteachinghospitals.nhs.uk

www.nhs.uk

www.patient.co.uk

www.accessable.co.uk

All our patient information leaflets are available on our website for patients to access and download:

www.lancsteachinghospitals.nhs.uk/patient-information-leaflets

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If you want to stop smoking you can also contact the Quit Squad Freephone 0800 328 6297.

Please ask if you would like help in understanding this information. This information can be made available in large print and in other languages.

Gujarati:

આ માહિતીને સમજવામાં સહાયતા જોઈતી હોય તો કૃપા કરીને પૂછો. આ માહિતી મોટા છપાણામાં અને અન્ય ભાષામાં ઉપલબ્ધ કરી શકાય છે.

Romanian:

Vă rugăm să întrebați dacă aveți nevoie de ajutor pentru înțelegerea acestor informații. Aceste informații pot fi puse la dispoziție în format mare și în alte limbi.”

Polish:

Poinformuj nas, jeśli potrzebna jest ci pomoc w zrozumieniu tych informacji. Informacje te można również udostępnić dużym drukiem oraz w innych językach

Punjabi:

ਜੇ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਸਮਝਣ ਵੱਲੋਂ ਮਦਦ ਲੈਣੀ ਚਾਹੋਗੇ ਤਾਂ ਕਰਿਪਾ ਕਰਕੇ ਇਸ ਬਾਰੇ ਪੁੱਛੋ। ਇਹ ਜਾਣਕਾਰੀ ਵੱਡੇ ਪ੍ਰਿੰਟ ਅਤੇ ਹੋਰਨਾਂ ਭਾਸ਼ਾਵਾਂ ਵੱਲੋਂ ਮੁਹੱਈਆ ਕੀਤੀ ਜਾ ਸਕਦੀ ਹੈ।

Urdu:

دو سر ی زبانوں او ر بڑی اگر آپ کو ہی معلومات سمجھنے کے لیے مدد کی ضرورت ہے تو یی چھپا یں ییہ ابی دست ہو یسکت ہے برا ے مہر یان پو ے یچہ ہی۔ معلومات

Arabic:

مطبوعه بأ حروف كبيره و بلغات إذا كنت تريد مساعده في فهم هذه لمعلومات يُرجى أن تطلب أخرى يمكن تو فسير هذه المعلوما

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Division: Medicine

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