



## THERAPEUTIC DRUG MONITORING TEST REPERTOIRE

Department of Medical Biochemistry, Immunology and Toxicology  
University Hospital of Wales  
Heath Park  
Cardiff  
CF14 4XW

Therapeutic Drug Monitoring (TDM section) open Monday to Friday 08:45 to 17:15

For laboratory enquiries please contact:

Katie Hicks (Senior Biomedical Scientist)  
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E-mail: [Katie.Hicks@wales.nhs.uk](mailto:Katie.Hicks@wales.nhs.uk)

For clinical advice contact:

Sarah Tennant (Clinical Biochemist)  
Tel: 02921 848334  
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### **FOR URGENT REQUESTS PLEASE CONTACT THE LABORATORY**

Samples will be processed as soon as it is feasible to do so.

It may be possible to process small sample volumes but advisable to contact laboratory for advice.

Please provide clinical details, particularly current patient medication, and collection times of sample on all request forms

Assay	Sample Requirement (ml)	Sample Handling / Transport	Methodology	Reference Range	Turnaround Time (maximum working days)	EQA	Clinical Utility
Amikacin	1 mL serum	2 - 8°C 7 days	PETINIA	Interpretation provided on report	1	UK NEQAS	Antibiotic
Carbamazepine	Trough 1 mL serum	2 - 8°C 48 hours -20°C 7 days	PETINIA	4 – 12 mg/L	1	UK NEQAS	Anti-convulsant
Ciclosporin	Trough 2 mL whole blood	2 - 8°C 7 days	CMIA	None quoted	1	LGC Standards proficiency testing	Immunosuppression
Digoxin	Trough 1 mL serum	2 - 8°C 48 hours	PETINIA	0.5 – 2.0 ug/L	1	UK NEQAS	Atrial fibrillation, cardiac failure
Gentamicin	1 mL serum	2 - 8°C 7 days	CEDIA	Interpretation provided on report	1	UK NEQAS	Antibiotic
Lithium	Trough 1 mL serum	24 hours Room Temp	Colorimetric	0.4 - 1.0 mmol/L	1	UK NEQAS	Mood stabilisation in bipolar disorder
Methotrexate	1 mL serum/plasma (Li Hep)	2 - 8°C 2 days and transport at room temp or freeze if longer than 2 days	CMIA	Therapeutic ranges vary depending on treatment protocol	1	UKNEQAS	Antineoplastic
Phenobarbital	Trough 1 mL serum	7 days Room Temp	PETINIA	10 – 40 mg/L	1	UK NEQAS	Anti-convulsant
Phenytoin	Trough 1 mL serum	48 hours Room Temp 2-8°C 1 month	Enzyme Immunoassay	5 – 20 mg/L	1	UK NEQAS	Anti-convulsant
Sirolimus	2 mL whole blood	2 - 8°C 7 days	CMIA	None quoted	5	LGC Standards proficiency testing	Immunosuppression
Tacrolimus	2 mL whole blood	2 - 8°C 7 days	CMIA	None quoted	1	LGC Standards proficiency testing	Immunosuppression

Tobramycin	1 mL serum	2 - 8°C 7 days	PETINIA	Interpretation provided on report	1	UK NEQAS	Antibiotic
Theophylline	Trough 1ml serum	2-8°C 3 months	Enzyme Immunoassay	10 – 20 mg/L	1	UK NEQAS	Bronchodilation
Valproate	Trough 1ml serum	2 - 8°C 48 hours -20°C 7 days	PETINIA	None quoted	1	UK NEQAS	Anti-convulsant
Vancomycin	1 mL serum	2 - 8°C 7 days	PETINIA	Interpretation provided on report	1	UK NEQAS	Antibiotic

**\* For current prices please contact the department**