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Bwrdd Iechyd Prifysgol
Caerdydd a'r Fro
Cardiff and Vale
University Health Board

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)
Tel: 02921 848372
E-mail: Katie.Hicks@wales.nhs.uk

For clinical advice contact:

Sarah Tennant (Clinical Biochemist)
Tel: 02921 848334
E-mail: Sarah.Tennant@wales.nhs.uk

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 (<i>maximum working days</i>) | EQA | Clinical Utility |
|------------------------------|-------------------------|-------------------------------------|--------------------------|------------------|-------------------------------------------------|-----------------------------------|----------------------------------------|
| Carbamazepine | Trough 1ml serum | 2 - 8°C 48 hours -20°C 7 days | PETINIA | 4 – 12 mg/L | 1 | UK NEQAS | Anti-convulsant |
| Ciclosporin | Trough 2ml whole blood | 2 - 8°C 7 days | CMIA | None quoted | 1 | LGC Standards proficiency testing | Immunosuppression |
| Digoxin | Trough 1ml serum | 2 - 8°C 48 hours | PETINIA | 0.5 – 2.0 ug/L | 1 | UK NEQAS | Atrial fibrillation, cardiac failure |
| Iron (Iron overdose only) | 1ml serum | 7 days Room Temp | Colorimetric | 10 - 30 µmol/L | 2h from receipt in lab | UK NEQAS | Toxicology – iron overdose |
| Lithium | Trough 1ml serum | 24 hours Room Temp | MULIGENT Colorimetric | 0.4 - 1.0 mmol/L | 1 | UK NEQAS | Mood stabilisation in bipolar disorder |
| Phenobarbital | Trough 1ml serum | 7 days Room Temp | PETINIA | 10 – 40 mg/L | 1 | UK NEQAS | Anti-convulsant |
| Phenytoin | Trough 1ml serum | 48 hours Room Temp 2-8°C 1 month | Enzyme Immunoassay | 5 – 20 mg/L | 1 | UK NEQAS | Anti-convulsant |
| Sirolimus | 2ml whole blood | 2 - 8°C 7 days | CMIA | None quoted | 5 | LGC Standards proficiency testing | Immunosuppression |
| Tacrolimus | 2ml whole blood | 2 - 8°C 7 days | CMIA | None quoted | 1 | LGC Standards proficiency testing | Immunosuppression |
| 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 |

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