



Therapeutic Drug Monitoring (TDM) Collection Guidelines for Legacy Randall Children's Hospital

- *If drawing the blood sample outside of the parameters ordered, call the pharmacy or the physician before drawing the sample.*
- Drug level results must be obtained before administering the next scheduled dose. Drug level labs may need to be ordered STAT for dose or interval adjustment.
- Notify pharmacy/physician of out-of-range drug level results.
- *If minimum risk to the patient, please draw the preferred volume of whole blood. If retesting is necessary, a sample of minimum volume will not provide enough blood. When possible, avoid drawing the minimum volume of whole blood.*

DRUG	INFUSION TIME	WHEN TO DRAW LEVEL	SPECIMEN TUBE/ AMOUNT
Carbamazepine	--	Just before the next dose	Collect: 1 plain red top tube (1 microtainer is OK if filled to fill line) Preferred Vol: 2.5 mL whole blood Minimum Vol: 0.6 mL whole blood
Cyclosporine - IV/PO	2-4 hours	Just before the next dose	Collect: 1 lavender top tube (2 microtainers is OK if filled to fill line) Preferred Vol: 2.5 mL whole blood Minimum Vol: 1.2 mL whole blood
Digoxin - IV/PO	5-10 minutes	Just before the next dose (Recommended >6 hours after previous dose)	Collect: 1 plain red top tube (1 microtainer is OK if filled to fill line) Preferred Vol: 2.5 mL whole blood Minimum Vol: 0.6 mL whole blood
Fosphenytoin (measure Phenytoin levels) - IV	3 mg/kg/minute	Peak 2 hours after the end of infusion Trough just before the next dose	Collect: 1 plain red top tube (1 microtainer is OK if filled to fill line) Preferred Vol: 2.5 mL whole blood Minimum Vol: 0.6 mL whole blood
Gentamicin	30-60 minutes	IV <u>NICU:</u> Trough within 30 minutes before administration of the dose and then the peak 30 minutes after the end of the 30-minute infusion of the same dose. <u>Traditional dosing:</u> Peak 30 minutes after the end of the 30-minute infusion Trough within 30 minutes before the next dose <u>Once daily dosing:</u> Random level 8-12 hours after the dose IM Peak 1-hour post IM injection Trough within 30 minutes before the next dose	Collect: 1 plain red, gold, mint green or lavender top tube (1 microtainer is OK if filled to fill line) Preferred Vol: 2.5 mL whole blood Minimum Vol: 0.6 mL whole blood
Phenobarbital	1 mg/kg/minute	Just before the next dose	Collect: 1 plain red, gold or mint green top tube (1 microtainer is OK if filled to fill line) Preferred Vol: 2.5 mL whole blood Minimum Vol: 0.6 mL whole blood



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Phenytoin - PO	--	Trough just before the next dose	Collect: 1 plain red top tube (1 microtainer is OK if filled to fill line) Preferred Vol: 2.5 mL whole blood Minimum Vol: 0.6 mL whole blood
Tobramycin	30-60 minutes	<p style="text-align: center;">IV</p> <p><u>NICU:</u> Trough within 30 minutes before administration of the dose and then the peak 30 minutes after the end of the 30 minute infusion of the same dose.</p> <p><u>Traditional dosing:</u> Peak 30 minutes after the end of the 30-minute infusion Trough within 30 minutes before the next dose</p> <p><u>Once daily dosing:</u> Random level 8-12 hours after the dose</p> <p style="text-align: center;">IM</p> <p>Peak 60-90 minutes (1-1.5 hours) post injection Trough within 30 minutes before the next dose</p>	Collect: 1 plain red, gold, mint green or lavender top tube (1 microtainer is OK if filled to fill line) Preferred Vol: 2.5 mL whole blood Minimum Vol: 0.6 mL whole blood
Valproic Acid – IV/PO	60 minutes	Trough just before the next dose	Collect: 1 plain red, gold, or mint green top tube (1 microtainer is OK if filled to fill line) Preferred Vol: 2.5 mL whole blood Minimum Vol: 0.6 mL whole blood
Vancomycin	60-120 minutes	Trough within 30 minutes of the next dose	Collect: 1 plain red, gold or mint green top tube (1 microtainer is OK if filled to fill line) Preferred Vol: 2.5 mL whole blood Minimum Vol: 0.6 mL whole blood