LEGACY HEALTH | LEGACY LABORATORY SERVICES

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	**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** NICU: 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. Traditional dosing: Peak 30 minutes after the end of the 30-minute infusion Trough within 30 minutes before the next dose Once daily dosing: Random level 8-12 hours after the dose **IM** Peak 1-2 hours after 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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DRUG	INFUSION TIME	WHEN TO DRAW LEVEL	SPECIMEN TUBE/ AMOUNT
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
Thiocyanate (Nitroprusside infusion)	Infusion	Nitroprusside continuous infusion	**Collect:** **2** **plain red** or **mint green** top tubes **Preferred Vol:** 7.5 mL whole blood **Minimum Vol:** 5.0 mL whole blood
Tobramycin	30-60 minutes	**IV** NICU: 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. Traditional dosing: Peak 30 minutes after the end of the 30-minute infusion Trough within 30 minutes before the next dose Once daily dosing: Random level 8-12 hours after the dose **IM** Peak 1-2 hours after 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
Valproic Acid – IV/PO	60 minutes	Trough just 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
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