

LABORATORY THERAPEUTIC DRUG MONITORING

DRUG	RECOMMENDED DRAW TIME	THERAPEUTIC RANGE	PANIC
Acetaminophen	4 hrs after ingestion	10.0 to 30.0 µg/ml	≥100
Amikacin	IM Peak: 60 mins post IM IV Peak: 30 mins post infusion Trough: Immediately pre-dose	Peak: 15 to 25 mg/l Trough: 4 to 8 mg/l	
Carbamazepine	Pre-dose	4 to 12 µg/ml	
Chloramphenicol	2 hrs after start of dose (1.5 hr after a ½ hr infusion)		
Digoxin	a.m. pre-dose or 8 to 12 hrs post dose	0.9 to 2.0 ng/ml	≥3.0 ng/ml
Dilantin (phenytoin)	Pre-dose	10 to 20 µg/ml	
Gentamicin	IM Peak: 60 mins post IM IV Peak: 30 mins post infusion Trough: Immediately pre-dose	Peak: 4 to 8 µg/ml Trough: 0.0 to 2.0 µg/ml	
Levetiracetam (Keppra)	Pre-dose	*Levels used for medication adherence, not used to determine efficacy/dosing	>50 µg/ml
Lidocaine	30 mins post dose	1.5 to 6.0 µg/ml	
Lithium	8 to 12 hours post dose	0.6 to 1.2 mmol/L	≥2.0 mmol/L
Phenobarbital	Pre-dose	15 to 40 µg/ml	
Procaïnamide (total)	Peak: 30 mins post IM 60 to 90 mins post oral (Pronestyl) 2 hrs post oral (Procan SR) Trough: Pre-dose	5 to 30 µg/ml	
Procan SR	4 hrs after dose		
Procanbid	4 hrs after dose		
Quinidine	Peak: 15 mins post IV 60 to 90 mins post oral (sulfate) 6 hrs post oral (Gluconate) 6 hrs post oral (Polygalactia) Trough: Pre-dose	2.0 to 5.0 µg/ml	
Salicylate	Therapeutic: 4 to 6 hrs post dose Overdose: 6 hrs post ingestion Peak: 2 to 4 hrs post dose	2.8 to 20 mg/dl	≥40
Tacrolimus	Pre-dose	5 to 15 ng/ml	
Theophylline	1 hr post oral elixir 2 hrs post oral tablet 4 hrs post oral sustained release	10 to 20 µg/ml	≥25
Tobramycin	Peak: 60 mins post IM 30 mins post infusion Trough: Immediately pre-dose	Peak: 5.0 to 10.0 µg/ml Trough: 0.0 to 2.0 µg/ml	
Valproic Acid	Pre-dose	50 to 100 µg/ml	
Vancomycin	Peak: 60 mins post IM 60 mins post infusion Trough: Immediately pre-dose	Peak: 30 to 40 µg/ml Trough: 10 to 20 µg/ml	
Voriconazole	Pre-dose	1 to 5.5 µg/ml	