APPENDIX A. Therapeutic Ranges of Drugs in Traditional and SI Units[a], cont'd

DRUG	TRADITIONAL RANGE	CONVERSION FACTOR[b]	SI RANGE
Quinidine	2–6 mg/L	3.082	5–18 μmol/L
Salicylate (acid)	150–300 mcg/mL	7.24	1086–2172 μmol/L
Theophylline	10–20 mg/L	5.55	55–110 μmol/L
Tobramycin	5–10 mcg/mL	2.139	10.7–21 μmol/L
Tocainide	4–10 mcg/mL	5.201	21–52 μmol/L
Valproic acid	50–100 mg/L	6.934	350–700 μmol/L
Vancomycin	20–40 mcg/mL	0.69	14–28 μmol/L

[a]Also see Table 5-3 in Chapter 5.
[b]Traditional units are multiplied by conversion factor to get SI units.
[c]Whole blood assay.

APPENDIX B. Nondrug Reference Ranges for Common Laboratory Tests in Traditional and SI Units[a,b]

LABORATORY TEST	REFERENCE RANGE TRADITIONAL UNITS	CONVERSION FACTOR	REFERENCE RANGE SI UNITS	COMMENT
Alanine aminotransferase (ALT)	0–30 IU/L	0.01667	0–0.5 μkat/L	SGPT
Albumin	3.5–5 g/dL	10	35–50 g/L	
Alkaline phosphatase	30–120 units/L	0.0167	0.5–2 μkat/L	
Ammonia (as nitrogen)	15–45 mcg/dL	0.714	11–32 μmol/L	
Aspartate aminotransferase (AST)	8–42 IU/L	0.01667	0.133–0.7 μkat/L	SGOT
Bilirubin (direct)	0.1–0.3 mg/dL	17.1	1.7–5 μmol/L	
Bilirubin (total)	0.3–1 mg/dL	17.1	5–17 μmol/L	
Calcium	8.5–10.8 mg/dL	0.25	2.1–2.7 mmol/L	
Carbon dioxide (CO_2)	24–30 mEq/L	1	24–30 mmol/L	Serum bicarbonate
Chloride	96–106 mEq/L	1	96–106 mmol/L	
Cholesterol (HDL)	>40 mg/dL	0.026	>1.05 mmol/L	Desirable
Cholesterol (LDL)	<130 mg/dL	0.026	<3.36 mmol/L	Desirable
Creatine kinase (CK)	25–90 IU/L (males)	0.01667	0.42–1.5 μkat/L	Males
	10–70 IU/L (females)		0.17–1.17 μkat/L	Females
Creatinine, serum (SCr)	0.7–1.5 mg/dL	88.4	62–133 μmol/L	Adults
Creatinine clearance (CrCl)	90–140 mL/min/1.73 m^2	0.017	1.53–2.38 mL/sec/1.73 m^2	
Folic acid	3–16 ng/mL	2.266	7–36 nmol/L	
γ-glutamyl transpeptidase (GGT/GGTP)	0–30 units/L (but varies)	0.01667	0–0.5 μkat/L (but varies)	GGT/GGTP
Glucose (fasting)	70–110 mg/dL	0.056	3.9–6.1 mmol/L	Fasting
Hemoglobin (Hgb)	14–18 g/dL (males)	0.622	8.7–11.2 mmol/L	Males
	12–16 g/dL (females)	0.622	7.4–9.9 mmol/L	Females
		10	140–180 g/L	Males
		10	120–140 g/L	Females
Iron	50–150 mcg/dL	0.179	9–26.9 μmol/L	
Lactate (arterial), serum	0.5–2 mEq/L	1	0.5–2 mmol/L	
Lactate (venous), serum	0.5–1.5 mEq/L	1	0.5–1.5 mmol/L	Lactic acid
Lactate dehydrogenase (LDH)	100–210 IU/L	0.01667	1667–350 nmol/L, 1.7–3.2 μkat/L	LDH
Magnesium	1.5–2.2 mEq/L	0.5	0.75–1.1 mmol/L	
5' nucleotidase	1–11 units/L (but varies)	0.01667	0.02–0.18 μkat/L (but varies)	

APPENDIX B. Nondrug Reference Ranges for Common Laboratory Tests in Traditional and SI Units[a,b]

LABORATORY TEST	REFERENCE RANGE TRADITIONAL UNITS	CONVERSION FACTOR	REFERENCE RANGE SI UNITS	COMMENT
Phosphate	2.6–4.5 mg/dL	0.3229	0.85–1.48 mmol/L	
Potassium	3.5–5 mEq/L	1	3.5–5 mmol/L	
Sodium	136–145 mEq/L	1	136–145 mmol/L	
Thyroxine (T_4), total serum	5–12 mcg/dL	12.86	64–154 nmol/L	Total T_4
Total iron-binding capacity (TIBC)	250–410 mcg/dL	0.179	45–73 μmol/L	TIBC
Triglycerides	<150 mg/dL	0.0113	<1.26 mmol/L	Adults >20 yr
Triiodothyronine (T_3), total serum	78–195 ng/dL	0.0154	1.2–3 nmol/L	Total T_3
Urea nitrogen, blood (BUN)	8–20 mg/dL	0.357	2.9–7.1 mmol/L	BUN
Uric acid (serum)	3.4–7 mg/dL	59.48	202–416 μmol/L	

SGOT = serum glutamic oxaloacetic transaminase; SGPT = serum glutamic pyruvic transaminase.
[a]Some laboratories are maintaining traditional units for enzyme tests.
[b]For more extensive listing, refer to www.amamanualofstyle.com/page/si-conversion-calculator (accessed 2016 Mar 1).