TABLE 1—Système International (SI) units for plasma, serum, or blood concentrations

Measurement	Conventional unit	Conversion factor	SI unit	Significant digits	Suggested minimum increments
Acetoacetate	mg/dl	97.95	μmol/l	XXO	10 μmol/l
Acetone	mg/dl	172.2	μmol/l	XXO	10 μmol/l
Adrenocorticotropin	pg/ml	0.2202	pmol/l	XX	1 pmol/l
Aldosterone	ng/dl	27.74	pmol/l	XXO	10 pmol/l
Amino acids					
Alanine	mg/dl	112.2	μmol/l	XXX	5 μmol/l
α-Aminobutyric acid	mg/dl	96.97	μmol/l	XXX	5 μmol/l
Arginine	mg/dl	57.40	μmol/l	XXX	5 μmol/l
Asparagine	mg/dl	75.69	μmol/l	XXX	5 μmol/l
Aspartic acid	mg/dl	75.13	μmol/l		5 μmol/l
Citrulline	mg/dl	57.08	μmol/l	XXX	5 μmol/l
Cystine	mg/dl	41.61	μmol/l	XXX	5 μmol/l
Glutamic acid	mg/dl	67.97	μmol/l	XXX	5 μmol/l
Glutamine	mg/dl	68.42	μmol/l	XXX	5 μmol/l
Glycine	mg/dl	133.2	μmol/l	XXX	5 μmol/l
Histidine	mg/dl	64.45	μmol/l	XXX	5 μmol/l
Hydroxyproline	mg/dl	76.26	μmol/l	XXX	5 μmol/l
Isoleucine	mg/dl	76.24	μmol/l	XXX	5 μmol/l
Leucine	mg/dl	76.24	μmol/l	XXX	5 μmol/l
Lysine	mg/dl	68.40	μmol/l	XXX	5 μmol/l
Methionine	mg/dl	67.02	μmol/l	XXX	5 μmol/l
Ornithine	mg/dl	75.67	μmol/l	XXX	5 μmol/l
Phenylalanine	mg/dl	60.54	μmol/l	XXX	5 μmol/l
Proline	mg/dl	86.86	μmol/l	XXX	5 μmol/l
Serine	mg/dl	95.16	μmol/l	XXX	5 μmol/l
Taurine	mg/dl	79.91	μmol/l	XXX	5 μmol/l
Threonine	mg/dl	83.95	μmol/l	XXX	5 μmol/l
Tryptophan	mg/dl	48.97	μmol/l	XXX	5 μmol/l
Tyrosine	mg/dl	55.19	μmol/l	XXX	5 μmol/l
Valine	mg/dl	85.36	μmol/l	XXX	5 μmol/l
Amino acid nitrogen	mg/dl	0.7139	mmol/l	X.X	0.1 mmol/l
Amylase	U/l	1.0	U/l	XXO	10 U/l
Androstenedione	μg/l	3.492	nmol/l	XX.X	0.5 nmol/l
Calcitonin	pg/ml	1.0	ng/l	XXO	10 ng/l
Calcium	mg/dl	0.2495	mmol/l	X.XX	0.02 mmol/l
Calcium ion	meq/l	0.500	mmol/l	X.XX	0.01 mmol/l
Carbon dioxide content	meq/l	1.00	mmol/l	XX	1 mmol/l
Cholesterol	mg/dl	0.02586	mmol/l	X.XX	0.05 mmol/l
Citrate (as citric acid)	mg/dl	52.05	μmol/l	XXX	5 μmol/l
Cortisol	μg/dl	27.59	nmol/l	XXO	10 nmol/l
C-peptide	ng/ml	0.331	nmol/l	X.XX	0.01 nmol/l
Creatinine	mg/dl	88.40	μmol/l	XXO	10 μmol/l
Creatinine clearance	ml/min	0.01667	ml/s	X.XX	0.02 ml/s
cyclic AMP	μg/l	3.038	nmol/l	XXX	1 nmol/l
cyclic GMP	μg/l	2.897	nmol/l	XX.X	0.1 nmol/l
Dehydroepiandrosterone	μg/l	3.467	nmol/l	XX.X	0.2 nmol/l
Dehydroepiandrosterone sulfate	ng/ml	0.002714	μmol/l	XX.X	0.1 μmol/l
11-Deoxycortisol	μg/dl	28.86	nmol/l	XXO	10 nmol/l
Epinephrine	pg/ml	5.458	pmol/l	XXO	10 pmol/l
Estradiol	pg/ml	3.671	pmol/l	XXX	1 pmol/l
Estrone	pg/ml	3.699	pmol/l	XXX	5 pmol/l
Fatty acids, nonesterified	mg/dl	0.01	g/l	X.XX	0.01 g/l
Follicle-stimulating hormone	mIU/ml	1.00	IU/l	XX	1 IU/l
Fructose	mg/dl	0.05551	mmol/l	X.XX	0.1 mmol/l
Galactose	mg/dl	0.05551	mmol/l	X.XX	0.1 mmol/l
Gases					
Po_2	mmHg	0.1333	kPa	XX.X	0.1 kPa
Pco_2	mmHg	0.1333	kPa	X.X	0.1 kPa
Gastrin	pg/ml	1.0	ng/l	XXO	10 ng/l
Gastroinhibitory polypeptide	pg/ml	0.201	pmol/l	XXO	10 pmol/l
Glucagon	pg/ml	1.0	ng/l	XXO	10 ng/l
Glucose	mg/dl	0.05551	mmol/l	XX.X	0.1 mmol/l
Glycerol, free	mg/dl	0.1086	mmol/l	X.XX	0.01 mmol/l
Growth hormone	ng/ml	1.0	μg/l	XX.X	0.5 μg/l
β-Hydroxybutyrate (as β-hydroxybutyric acid)	mg/dl	96.05	μmol/l	XXO	10 μmol/l
17α-Hydroxyprogesterone	μg/l	3.026	nmol/l	XX.X	0.5 nmol/l
Insulin	μU/ml	6.0	pmol/l	XXX	5 pmol/l
Lactate (as lactic acid)	mEq/l	1.0	mmol/l	X.X	0.1 mmol/l
Lipase	U/l	1.0	U/l	XXX	1 U/l
Lipoproteins				X.XX	
LDL (as cholesterol)	mg/dl	0.02586	mmol/l	X.XX	0.05 mmol/l
HDL (as cholesterol)	mg/dl	0.02586	mmol/l	XXX	0.05 mmol/l
Luteinizing hormone	mIU/ml	1.0	IU/l	X.XX	1 IU/l
Norepinephrine	pg/ml	0.005911	nmol/l	XXX	0.01 nmol/l
Osmolality	mOsm/kg	1.0	mmol/kg	XX	1 mmol/kg
Pancreatic polypeptide	pg/ml	0.239	pmol/l	X.XX	1 pmol/l
Phosphate (as inorganic phosphorus)	mg/dl	0.3229	mmol/l	X.XX	0.05 mmol/l
Phospholipid phosphorus	mg/dl	0.3229	mmol/l	XX	0.05 mmol/l
Progesterone	ng/ml	3.180	nmol/l	XX	2 nmol/l
Prolactin	ng/ml	1.0	μg/l	XX	1 μg/l
Protein, total	g/dl	10.0	g/l	XX	1 g/l
Pyruvate (as pyruvic acid)	mg/dl	113.6	μmol/l	XXX	1 μmol/l
Renin	$ng \cdot ml^{-1} \cdot h^{-1}$	0.2778	$ng \cdot L^{-1} \cdot s^{-1}$	X.XX	0.02 $ng \cdot L^{-1} \cdot s^{-1}$
Serotonin	μg/dl	0.05675	μmol/l	X.XX	0.05 μmol/l
Somatostatin	pg/ml	0.611	pmol/l	XX	1 pmol/l
Testosterone	ng/ml	3.467	nmol/l	XX.X	0.5 nmol/l
Thyroid-stimulating hormone	μU/dl	1.0	mU/l	X.X	0.1 mU/l
Thyroxine	μg/dl	12.87	nmol/l	XXX	1 nmol/l
Triiodothyronine	ng/dl	0.01536	nmol/l	X.X	0.1 nmol/l
Urea nitrogen	mg/dl	0.3570	mmol/l	X.X	0.5 nmol/l
Vasoactive intestinal polypeptide	pg/ml	0.331	pmol/l	X.X	1 pmol/l

Largely from Young DS: *Ann Intern Med* 106:114–29, 1987. For insulin see Vølund A, Brange J, Drejer K, Jensen I, Markussen J, Ribel V, Sørensen AR, Schlichtkrull J: In vitro and in vivo potency of insulin analogues designed for clinical use. *Diabetic Med* 8:839–47, 1991.