

information on CLIA proficiency testing criteria for acceptable analytical performance, as printed in the Federal Register February 28, 1992;57(40):7002-186. These guidelines for acceptable performance can be used as Analytical Quality Requirements in the Westgard QC Design and Planning process.

Routine Chemistry	
Test or Analyte	Acceptable Performance
Alanine aminotransferase	Target value \pm 20%
Albumin	Target value \pm 10%
Alkaline phosphatase	Target value \pm 30%
Amylase	Target value \pm 30%
Aspartate aminotransferase (AST)	Target value \pm 20%
Bilirubin, total	Target value \pm 0.4 mg/dL or \pm 20% (greater)
Blood gas pO ₂	Target value \pm 3 SD
Blood gas pCO ₂	Target value \pm 5 mm Hg or \pm 8% (greater)
Blood gas pH	Target value \pm 0.04
Calcium, total	Target value \pm 1.0 mg/dL
Chloride	Target value \pm 5%
Cholesterol, total	Target value \pm 10%
Cholesterol, high dens. lipoprotein	Target value \pm 30%
Creatine kinase	Target value \pm 30%
Creatine kinase isoenzymes	MB elevated (present or absent) or Target value \pm 3 SD Creatinine
Creatinine	Target value \pm 0.3 mg/dL or \pm 15% (greater)
Glucose	Target value \pm 6 mg/dL or \pm 10% (greater)
Iron, total	Target value \pm 20%
Lactate	Target value \pm 20%

dehydrogenase (LDH)	
LDH isoenzymes	LDH1/LDH2 (+ or -) or Target value \pm 30%
Magnesium	Target value \pm 25%
Potassium	Target value \pm 0.5 mmol/L
Sodium	Target value \pm 4 mmol/L
Total protein	Target value \pm 10%
Triglycerides	Target value \pm 25%
Urea Nitrogen	Target value \pm 2 mg/dL or \pm 9% (greater)
Uric acid	Target value \pm 17%
Toxicology	
Alcohol, blood	Target value \pm 25%
Blood lead	Target value \pm 10% or \pm 4 mcg/dL (greater)
Carbamazepine	Target value \pm 25%
Digoxin	Target value \pm 20% or \pm 0.2 ng/mL (greater)
Ethosuximide	Target value \pm 20%
Gentamicin	Target value \pm 25%
Lithium	Target value \pm 0.3 mmol/L or \pm 20% (greater)
Phenobarbital	Target value \pm 20%
Phenytoin	Target value \pm 25%
Primidone	Target value \pm 25%
Procainamide (and metabolite)	Target value \pm 25%
Quinidine	Target value \pm 25%
Theophylline	Target value \pm 25%
Tobramycin	Target value \pm 25%
Valproic acid	Target value \pm 25%
Hematology	
Test or Analyte	Acceptable Performance
Cell identification	90% or greater consensus on identification
White cell differentiation	Target \pm 3 SD based on percentage of different types of white cells
Erythrocyte count	Target \pm 6%

Hematocrit	Target \pm 6%
Hemoglobin	Target \pm 7%
Leukocyte count	Target \pm 15%
Platelet count	Target \pm 25%
Fibrinogen	Target \pm 20%
Partial thromboplastin time	Target \pm 15%
Prothrombin time	Target \pm 15%

Endocrinology

Test or Analyte	Acceptable Performance
Cortisol	Target value \pm 25%
Free thyroxine	Target value \pm 3 SD
Human chorionic gonadotropin	Target value \pm 3 SD or (positive or negative)
T3 uptake	Target value \pm 3 SD by method
Triiodothyronine	Target value \pm 3 SD
Thyroid stimulating hormone	Target value \pm 3 SD
Thyroxine	Target value \pm 20% or 1.0 mcg/dL (greater)

General immunology

Test or Analyte	Acceptable Performance
Alpha-1 antitrypsin	Target value \pm 3 SD
Alpha-fetoprotein	Target value \pm 3 SD
Antinuclear antibody	Target value \pm 2 dilution or (pos. or neg.)
Antistreptolysin O	Target value \pm 2 dilution or (pos. or neg.)
Anti-Human Immunodeficiency virus	Reaction or nonreactive
Complement C3	Target value \pm 3 SD
Complement C4	Target value \pm 3 SD
Hepatitis (HBsAg, anti-HBc, HBeAg)	Reactive (positive) or nonreactive (negative)
IgA	Target value \pm 3 SD
IgE	Target value \pm 3 SD
IgG	Target value \pm 25%
IgM	Target value \pm 3 SD

Infectious mononucleosis	Target value \pm 2 dilution or (pos. or neg.)
Rheumatoid factor	Target value \pm 2 dilution or (pos. or neg.)
Rubella	Target value \pm 2 dilution or (pos. or neg)