#### 2019 CLIA Proposed Acceptance Limits for Proficiency Testing

# In 2019 CLIA proposed a new set of quality requirements for proficiency testing. Here's what was listed in the Federal Register for public comment.

For expert guidance on PT goals, consider the New Poor Lab's Guide to the Regulations

#### Chemistry

Routine Chemistry CLIA 2019		
Analyte or Test	NEW Criteria for AP	OLD AP
Alanine aminotransferase (ALT/SGPT)	$TV \pm 15\%$	$TV \pm 20\%$
Albumin	$TV \pm 8\%$	$TV \pm 10\%$
Alkaline Phosphatase	$TV \pm 20\%$	$TV \pm 30\%$
Amylase	$TV \pm 10\%$	$TV \pm 30\%$
AST	$TV \pm 15\%$	$TV \pm 20\%$
Bilirubin, total	TV ±20%	TV $\pm 20\%$ or 0.4 mg/dL (greater)
Blood gas pCO2	TV ± 5mm Hg or ± 8% (greater)	Same
Blood gas pO2	TV $\pm$ 15 mm Hg or $\pm$ 15% (greater)	$TV \pm 3SD$
Blood gas pH	$TV \pm 0.04$	Same
B-natriuretic peptide (BNP)	$TV \pm 30\%$	None
Pro B-natriuetic peptide (proBNP)	$TV \pm 30\%$	None
Calcium, total	$TV \pm 1.0 \text{ mg/dL}$	Same
Carbon dioxide	$TV \pm 20\%$	None
Chloride	$TV \pm 5\%$	Same
Cholesterol, total	$TV \pm 10\%$	Same
Cholesterol, high density liprotein	$TV \pm 20\%$	$TV \pm 30\%$
Cholesterol, low density lipoprotein (direct)	$TV \pm 20\%$	None

Creatine kinase (CK)	$TV \pm 20\%$	$TV \pm 30\%$
CK-MB isoenzymes	MB elevated (presence or absence)	Same
	or TV $\pm$ 25% (greater)	or TV $\pm$ 3SD
Creatinine	$\frac{TV \pm 0.2 \text{ mg/dL or} \pm 10\%}{(\text{greater})}$	$\frac{TV \pm 0.2 \text{ mg/dL or} \pm 15\%}{(\text{greater})}$
Ferritin	$TV \pm 20\%$	None
Gamma glutamyl transferase	$\frac{\text{TV} \pm 5 \text{ U/L or} \pm 15\%}{\text{(greater)}}$	None
Glucose (excluding FDA home use)	$TV \pm 8\%$	$\frac{TV \pm 6 \text{ mg/dL or} \pm 10\%}{(\text{greater})}$
Hemoglobin A1c	TV ± 10%	None
Iron, total	$TV \pm 15\%$	$TV \pm 20\%$
Lactate dehydrogenase (LDH)	$TV \pm 15\%$	$TV \pm 20\%$
Magnesium	$TV \pm 15\%$	$TV \pm 25\%$
Phosphorus	TV ± 0.3 mg/dL or 10% (greater)	None
Potassium	$TV \pm 0.3 \text{ mmol/L}$	$TV \pm 0.5 \text{ mmol/L}$
Prostate Specific Antigen, total	$\frac{\text{TV} \pm 0.2 \text{ ng/dL or } 20\%}{\text{(greater)}}$	None
Sodium	$TV \pm 4 \text{ mmol/L}$	Same
Total Iron Binding Capacity (direct)	$TV \pm 20\%$	None
Total Protein	$TV \pm 8\%$	$TV \pm 10\%$
Triglycerides	$TV \pm 15\%$	$TV \pm 25\%$
Troponin I	$\frac{\text{TV} \pm 0.9 \text{ ng/mL or } 30\%}{\text{(greater)}}$	None
Troponin T	TV ± 0.2 ng/ML or 30% (greater)	None
Urea Nitrogen	$\frac{TV \pm 2 \text{ mg/dL or} \pm 9\%}{(\text{greater})}$	Same
Uric Acid	TV ± 10%	$TV \pm 17\%$

Immunology

Immunology CLIA 2019		
Analyte or Test	NEW Criteria for AP	OLD AP
Alpha-1 antitrypsin	$TV \pm 20\%$ or positive or negative	$TV \pm 3 SD$
Alpha-fetoprotein (tumor marker)	$TV \pm 20\%$ or positive or negative	$TV \pm 3 SD$
Antinuclear antibody	TV $\pm$ 3 SD or positive or negative	$TV \pm 2$ dilutions or pos or neg
Antistreptolysin O	TV $\pm$ 3 SD or positive or negative	$TV \pm 2$ dilutions or pos or neg
Anti-Human Immunodeficiency virus (HIV)	Reactive (pos) or nonreactive (neg)	Same
Complement C3	$TV \pm 15\%$ or positive or negative	$TV \pm 3 SD$
Complement C4	$\frac{\text{TV} \pm 5 \text{ mg/dL or} \pm 20\%}{\text{(greater)}}$	$TV \pm 3 SD$
C-reactive protein (HS)	$\frac{TV \pm 1 \text{ mg/dL or} \pm 30\%}{(\text{greater})}$	None
HBsAg	Reactive (pos) or nonreactive (neg)	Reactive (pos) or nonreactive (neg)
anti-HBc	Reactive (pos) or nonreactive (neg)	Reactive (pos) or nonreactive (neg)
HB3Ag	Reactive (pos) or nonreactive (neg)	Reactive (pos) or nonreactive (neg)
Anti-HBs	Reactive (pos) or nonreactive (neg)	Reactive (pos) or nonreactive (neg)
Anti-HCV	Reactive (pos) or nonreactive (neg)	Reactive (pos) or nonreactive (neg)
IgA	$TV \pm 15\%$	$TV \pm 3SD$
IgE	$TV \pm 20\%$	$TV \pm 3SD$
IgG	$TV \pm 20\%$	$TV \pm 3SD$
IgM	$TV \pm 20\%$	$TV \pm 3SD$
Infectious mononucleosis	Positive or negative	$TV \pm 2$ dilutions or pos or neg
Rhematoid factor	TV $\pm$ 3 SD or positive or negative	$TV \pm 2$ dilutions or pos or neg

Rubella	TV $\pm$ 3 SD or positive or	TV $\pm 2$ dilutions or pos or
	negative	neg

# Endocrinology

AP
25%
3SD
3SD or positive or ve
3SD
3SD
3SD

# Toxicology

Toxicology CLIA 2019		
Analyte or Test	NEW Criteria for AP	OLD AP
Acetaminophen	$TV \pm 15\%$	None
Alcohol, blood	$TV \pm 20\%$	$TV \pm 25\%$
Blood lead	$TV \pm 10\%$ or $2mcg/dL$ (greater)	$TV \pm 10\%$ or $\pm 4 \text{ mcg/dL}$ (greater)
Carbamazepine	$TV \pm 20\%$	$TV \pm 25\%$
Digoxin	$TV \pm 15\% \text{ or } \pm 2 \text{ ng/mL}$ (greater)	None
Gentamicin	$TV\pm25\%$	Same
Lithium	$TV\pm15\%$	$TV \pm 0.3 \text{ mmol/L or } 20\%$ (greater)
Phenobarbital	$TV \pm 15\%$	$TV \pm 20\%$
Phenytoin	$TV \pm 15\%$ or $\pm 2 \text{ mcg/dL}$ (greater)	$TV \pm 25\%$
Salicylate	$TV \pm 15\%$	None
Theophylline	$TV \pm 20\%$	$TV \pm 25\%$
Tobramycin	$TV \pm 20\%$	$TV \pm 25\%$
Valproic acid	TV ±20%	$TV \pm 25\%$
Vancomycin	$TV \pm 15\%$ or $\pm 2 \text{ mcg/dL}$ (greater)	None

### Hematology

Hematology CLIA 2019		
Analyte or Test	NEW Criteria for AP	OLD AP
Cell identification	80% or greater consensus	90% or greater consensus
White blood cell differential	$TV \pm 3 SD$	Same
Erythrocyte count	$TV \pm 4\%$	$TV \pm 6\%$
Hematocrit	$TV \pm 4\%$	$TV\pm6\%$
Hemoglobin	$TV \pm 4\%$	$TV\pm7\%$
Leukocyte count	$TV \pm 5\%$	$TV\pm15\%$
Platelet count	$TV\pm25\%$	Same
Fibrinogen	$TV \pm 20\%$	Same

Partial thromboplastin time	$TV \pm 15\%$	Same
Prothrombin time	$TV \pm 15\%$	Same