

Supplemental Table 1:

Summary of analytic methods for CBC and biochemistry values, as provided by the manufacturers for automated values, or in accordance with UTVMC clinical pathology standard operating procedures for manual methods (nRBCs and manual WBC differential). All reagents are those provided by the manufacturer of the analyzer unless otherwise noted.

Value	Analytical Method
RBC	Isovolumetric sphering followed by low-angle and high-angle light scatter using the Mie theory of light scattering, with proprietary calibration factors
HGB	Cyanmethemoglobin method
HCT	Calculation, (RBCxMCV)/10
MCV	Mean of RBC volume histogram
MCH	Calculation, (HGB/RBC)x10
MCHC	Calculation, (HGB/[RBCxMCV])x1000
RDW	Calculation, 100x(standard deviation of RBC volume histogram/MCV)
Retic	Oxazine 750 dye for RNA content
nRBCs	Calculation, WBC x %nRBCs %nRBCs = The percentage of nucleated cells that are nRBCs, as determined by microscopic evaluation of a blood smear.
Platelets	Isovolumetric sphering followed by low-angle and high-angle light scatter using the Mie theory of light scattering, with proprietary calibration factors
Plateletcrit	Calculation, (PLTxMPV)/10,000
MPV	Mean of platelet volume histogram
WBC	Baso channel method utilizing a reagent containing phthalic acid and a surfactant to lyse red cells and platelets, together with light scatter. If nRBCs are detected, their value is subtracted from the Baso channel WBC count and a corrected WBC count is reported.
Neutr auto	Light scatter versus peroxidase activity; proprietary cell gating and cluster analysis
Lymph auto	Light scatter versus peroxidase activity; proprietary cell gating and cluster analysis
Mono auto	Light scatter versus peroxidase activity; proprietary cell gating and cluster analysis
Eos auto	Light scatter versus peroxidase activity; proprietary cell gating and cluster analysis
Baso auto	Light scatter versus peroxidase activity; proprietary cell gating and cluster analysis
LUC auto	Light scatter versus peroxidase activity; proprietary cell gating and cluster analysis
Neutr manual	Calculation, WBC x %Neutr %Neutr = The percentage of nucleated cells that are segmented neutrophils, as determined by microscopic evaluation of a blood smear.
Band manual	Calculation, WBC x %Band %Band = The percentage of nucleated cells that are band neutrophils, as determined by microscopic evaluation of a blood smear.
Lymph manual	Calculation, WBC x %Lymph %Lymph = The percentage of nucleated cells that are lymphocytes, as determined by microscopic evaluation of a blood smear.
Mono manual	Calculation, WBC x %Mono

	%Mono = The percentage of nucleated cells that are monocytes, as determined by microscopic evaluation of a blood smear.
Eos manual	Calculation, WBC x %Eos %Eos = The percentage of nucleated cells that are eosinophils, as determined by microscopic evaluation of a blood smear.
Baso manual	Calculation, WBC x %Baso %Baso = The percentage of nucleated cells that are basophils, as determined by microscopic evaluation of a blood smear.
Tot Prot	Colorimetric biuret method
Albumin	Colorimetric bromocresol green dye binding method
Globulins	Calculation, Total protein - Albumin
A:G ratio	Calculation, Albumin/Globulin
Glucose	Two-step enzymatic method utilizing hexokinase, with NADPH formation rate endpoint
AST	Two-step reaction initiated by AST catalyzing amino group transfer between L-aspartate and 2-oxoglutarate, with NADH oxidation rate endpoint
SDH	SDH catalyzes redox reaction between sorbitol and fructose, with NADH oxidation rate endpoint (Sekure Chemistry, Sekisui Diagnostics, LLC)
GGT	Enzymatic colorimetric assay in which GGT transfers a gamma-glutamyl group from a substrate to create a product measured colorimetrically
Bilirubin	Diazonium ion coupling
CK	Three-step reaction initiated by CK catalytic activity on creatine phosphate and ADP, with NADPH formation rate endpoint
Urea	Two-step reaction initiated by urease, with NADH oxidation rate endpoint
Creatinine	Kinetic colorimetry assay based on the Jaffé method
Phosphorus	Photometric ammonium molybdate reaction
Calcium	Colorimetric o-Cresolphthalein complexone reaction
Magn	Colorimetric chlorophosphonazo III reaction
Iron	Colorimetric assay in acidic condition with ascorbate and FerroZine
Chol	Cholesterol esterase enzymatic reaction with hydrogen peroxide-mediated colorimetric detection
Trig	Multistep enzymatic colorimetric test initiated by lipoprotein lipase with peroxidase endpoint
Sodium	Ion-selective electrode
Potassium	Ion-selective electrode
Chloride	Ion-selective electrode
TCO2	Two-step reaction initiated by bicarbonate reacting with phosphoenolpyruvate, with an endpoint of NADH consumption
Anion Gap	Calculation, (Na + K) – (Cl + TCO2)