

Supplementary Table 1: Analytical methods, reagents, analyzers, and traceability

Analyte	Method principle	Reagent (manufacturer , catalogue number)	Analyzer	Traceability
Hematology laboratory tests				
RBC	Hydrodynamically focused impedance	Sysmex	Sysmex XN1000	ICSH Reference Method
Hb	SLS photometric method	Sysmex	Sysmex XN1000	ICSH Reference Method
Hct	Hydrodynamically focused impedance	Sysmex	Sysmex XN1000	ICSH Reference Method
MCV	Calculated parameter	Not applicable (calculated parameter)	Sysmex XN1000	Not applicable (calculated parameter)
MCH	Calculated parameter	Not applicable (calculated parameter)	Sysmex XN1000	Not applicable (calculated parameter)
MCHC	Calculated parameter	Not applicable (calculated parameter)	Sysmex XN1000	Not applicable (calculated parameter)
RDW	Calculated parameter	Not applicable (calculated parameter)	Sysmex XN1000	Not applicable (calculated parameter)
Pit	Hydrodynamically focused impedance	Sysmex	Sysmex XN1000	ICSH Reference Method
MPV	Calculated parameter	Not applicable (calculated parameter)	Sysmex XN1000	Not applicable (calculated parameter)
Rtc	Fluorescent flow cytometry with a semiconductor laser	Sysmex	Sysmex XN1000	No internationally recognized reference method available
WBC	Fluorescent flow cytometry with a	Sysmex	Sysmex XN1000	ICSH Reference

	semiconductor laser			Method
Neutrophils	Fluorescent flow cytometry with a semiconductor laser	Sysmex	Sysmex XN1000	No internationally recognized reference method available
Lymphocytes	Fluorescent flow cytometry with a semiconductor laser	Sysmex	Sysmex XN1000	No internationally recognized reference method available
Monocytes	Fluorescent flow cytometry with a semiconductor laser	Sysmex	Sysmex XN1000	No internationally recognized reference method available
Eosinophils	Fluorescent flow cytometry with a semiconductor laser	Sysmex	Sysmex XN1000	No internationally recognized reference method available
Basophils	Fluorescent flow cytometry with a semiconductor laser	Sysmex	Sysmex XN1000	No internationally recognized reference method available
ESR	Photometric aggregometry	iSED system	iSED analyzer (Alcor Scientific)	Westergren method
Coagulation laboratory tests				
PT	Optical method	Sysmex Thromborel S, OUHP49	Sysmex CS2500	WHO 5th International Standard for Thromboplastin , Human, Recombinant, Plain (rTF/16)
APTT	Optical method	Sysmex Dade Actin FS,	Sysmex CS2500	No internationally

		B4218-20		recognized reference method available
APTT, ratio	Calculated parameter	Not applicable (calculated parameter)	Sysmex CS2500	Not applicable (calculated parameter)
Fbg	Clauss method	Sysmex Dade Thrombin, B4233-27	Sysmex CS2500	WHO 3rd International Standard for Fibrinogen Plasma (09/264)
Clinical chemistry laboratory tests				
TBIL	DPD diazo photometric method	Beckman Coulter, OSR6212	Beckman Coulter DxC700AU	NIST SRM 916a
DBIL	DPD diazo photometric method	Beckman Coulter, OSR6111	Beckman Coulter DxC700AU	Manufacturer's Master Calibrator
Glc	Hexokinase photometric method	Beckman Coulter, OSR6221	Beckman Coulter DxC700AU	NIST SRM 965
CREA	Enzymatic method	Beckman Coulter, OSR61204	Beckman Coulter DxC700AU	IDMS via NIST SRM 967
Uric acid	Uricase photometric method	Beckman Coulter, OSR6298	Beckman Coulter DxC700AU	IDMS Reference Method
Urea	Urease-glutamate dehydrogenase photometric method	Beckman Coulter, OSR6234	Beckman Coulter DxC700AU	NIST SRM 909b L1
AST	IFCC-recommended enzymatic method with PLP	Beckman Coulter, OSR6209	Beckman Coulter DxC700AU	IFCC Reference Method
ALT	IFCC-recommended enzymatic method with PLP	Beckman Coulter, OSR6107	Beckman Coulter DxC700AU	IFCC Reference Method
AMY	Enzymatic colorimetric method	Beckman Coulter, OSR6182	Beckman Coulter DxC700AU	IFCC Reference Method

ALP	IFCC-recommended enzymatic method	Beckman Coulter, OSR6104	Beckman Coulter DxC700AU	IFCC Reference Method
GGT	IFCC-recommended enzymatic method	Beckman Coulter, OSR6120	Beckman Coulter DxC700AU	IFCC Reference Method
CK	IFCC-recommended enzymatic method	Beckman Coulter, OSR6279	Beckman Coulter DxC700AU	IFCC Reference Method
LD	IFCC-recommended enzymatic method	Beckman Coulter, OSR6128	Beckman Coulter DxC700AU	IFCC Reference Method
Lip	Enzymatic colorimetric method	Beckman Coulter, OSR6130	Beckman Coulter DxC700AU	Manufacturer's Master Calibrator
K	Indirect potentiometry	Beckman Coulter ISE Reagents and Standards	Beckman Coulter DxC700AU	NIST SRM 918c
Na	Indirect potentiometry	Beckman Coulter ISE Reagents and Standards	Beckman Coulter DxC700AU	NIST SRM 919b
Cl	Indirect potentiometry	Beckman Coulter ISE Reagents and Standards	Beckman Coulter DxC700AU	NIST SRM 919b
Ca, total	Arsenazo-(III) photometric method	Beckman Coulter, OSR60117	Beckman Coulter DxC700AU	NIST SRM 909b L1
Ca, ionized	Direct potentiometry	Radiometer SC90	Radiometer ABL90 FLEX	NIST SRM 915b
Mg	Xylidyl blue photometric method	Beckman Coulter, OSR6189	Beckman Coulter DxC700AU	NIST SRM 909b L2
Phos	Molybdate UV photometric method	Beckman Coulter, OSR6222	Beckman Coulter DxC700AU	Manufacturer's Master Calibrator
Fe	TPTZ photometric colorimetric method	Beckman Coulter, OSR6286	Beckman Coulter DxC700AU	Manufacturer's Master Calibrator
UIBC	Nitroso-PSAP	Beckman Coulter,	Beckman Coulter	NIST SRM 937

	photometric colorimetric method	OSR61205	DxC700AU	
TIBC	Calculated parameter	Not applicable (calculated parameter)	Beckman Coulter DxC700AU	Not applicable (calculated parameter)
Alb	Bromcresol green photometric method	Beckman Coulter, OSR6202	Beckman Coulter DxC700AU	CRM 470
CRP	Immunoturbidimetry	Beckman Coulter, OSR6299	Beckman Coulter DxC700AU	CRM 470
TP	Biuret photometric method	Beckman Coulter, OSR6232	Beckman Coulter DxC700AU	NIST SRM 927c
HIL indices	Photometric interference indices	Beckman Coulter, OSR62166	Beckman Coulter DxC700AU	No internationally recognized reference method available

RBC - red blood cells. ICSH - The International Council for Standardization in Hematology. Hb - hemoglobin. SLS - cyanide-free sodium lauryl sulfate. Hct - hematocrit. MCV - mean cell volume. MCH - mean cell hemoglobin. MCHC - mean cell hemoglobin concentration. RDW - red cell distribution width. Plt - platelets. MPV - mean platelet volume. Rtc - reticulocytes. WBC - white blood cells. ESR - erythrocyte sedimentation rate. PT - prothrombin time. WHO - World Health Organization. APTT - activated partial thromboplastin time. Fbg - fibrinogen. TBIL - bilirubin, total. DPD - 3,5-dichlorophenyldiazonium tetrafluoroborate. NIST - National Institute of Standards and Technology. SRM - standard reference material. DBIL - bilirubin, direct. Glc - glucose. CREA - creatinine. IDMS - isotope dilution mass spectrometry. AST - aspartate aminotransferase. PLP - pyridoxal-5-phosphate. IFCC - International Federation of Clinical Chemistry and Laboratory Medicine. ALT - alanine aminotransferase. AMY - amylase. ALP - alkaline phosphatase. GGT - gamma-glutamyl transferase. CK - creatine kinase. LD - lactate dehydrogenase. Lip - lipase. K - potassium. ISE - ion-selective electrode. Na - sodium. Cl - chloride. Ca - calcium. Mg - magnesium. Phos - inorganic phosphate. Fe - iron. TPTZ - 2,4,6-tris(2-pyridyl)-s-triazine. UIBC - unsaturated iron-binding capacity. Nitroso-PSAP - 2-nitroso-5-(N-n-propyl-N-(3-sulfopropyl)amino)phenol. TIBC - total iron-binding capacity. Alb - albumin. CRM - certified reference material. CRP - C-reactive protein. TP - total protein. HIL - hemolysis, icterus, or lipemia.