


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

 <p>UKAS MEDICAL 8169</p> <p>Accredited to ISO 15189:2012</p>	<h3>HSL (Analytics) LLP</h3> <p>Issue No: 008 Issue date: 09 September 2021</p>	
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<p>Testing performed at the above address only</p>		

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
HUMAN BODY FLUIDS	<u>General Biochemistry</u> Biochemical examination activities for the purposes of clinical diagnosis.	In house documented procedures based on equipment manuals and standard methods as specified:
Serum (unless otherwise stated)	Quantification of:	Ion Sensitive Electrode method using Roche Cobas 702 SOPs BIO-MP1-8, BIO-MP1-7 & BIO-MP1-37
Urine also	Sodium	
Urine also	Potassium	
	Chloride	
	Quantification of:	Photometry method using Roche Cobas 702 SOPs BIO-MP1-8, BIO-MP1-7 & BIO-MP1-37
Urine also	Alanine Aminotransaminase	
	Albumin	
	Alkaline Phosphatase	
	Alpha-1 Antitrypsin	
	Amikacin	
Urine also	Amylase	
	Angiotensin Converting Enzyme	
	Aspartate Aminotransferase	
	Bicarbonate	



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<p>HUMAN BODY FLUIDS (cont'd)</p> <p>Serum (unless otherwise stated)</p> <p>Urine also</p> <p>Urine also</p> <p>Urine also</p>	<p><u>General Biochemistry</u> (cont'd)</p> <p>Biochemical examination activities for the purposes of clinical diagnosis. (cont'd)</p> <p>Quantification of: (cont'd)</p> <p>B2 Microglobulin</p> <p>Bile Acids</p> <p>Bilirubin (total and conjugated)</p> <p>Complement C3</p> <p>Complement C4</p> <p>Calcium</p> <p>Carbamazepine</p> <p>Caeruloplasmin</p> <p>Cholesterol</p> <p>Cholinesterase</p> <p>Creatine Kinase</p> <p>Creatinine (Jaffe)</p> <p>Creatinine (enzymatic)</p> <p>C-Reactive Protein (CRP)</p> <p>CRP (High Sensitivity)</p> <p>Ethanol</p> <p>Fructosamine</p> <p>Gentamicin</p> <p>Gamma Glutamyl Transferase</p>	<p>In house documented procedures based on equipment manuals and standard methods as specified:</p> <p>Photometry method using Roche Cobas 702 SOPs BIO-MP1-8, BIO-MP1-7 & BIO-MP1-37</p>



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HUMAN BODY FLUIDS (cont'd)	<u>General Biochemistry</u> (cont'd)	In house documented procedures based on equipment manuals and standard methods as specified: Photometry method using Roche Cobas 702 SOPs BIO-MP1-8, BIO-MP1-7 & BIO-MP1-37
Serum (unless otherwise stated)	Biochemical examination activities for the purposes of clinical diagnosis. (cont'd)	
	Quantification of: (cont'd)	
	Glutamate dehydrogenase	
CSF & urine also	Glucose	
	Haptoglobin	
	HDL Cholesterol	
	IgG	
	IgA	
	IgM	
	Iron	
CSF & plasma only	Lactate	
	Lactate Dehydrogenase	
	Lipase	
	Lipoprotein (a)	
	Lithium	
Urine also	Magnesium	
	Phenytoin	
Urine also	Phosphate	
	Rheumatoid Factor	
	Theophylline	
Urine and CSF also	Total Protein	



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<p>HUMAN BODY FLUIDS (cont'd)</p> <p>Serum (unless otherwise stated)</p> <p>Urine also</p> <p>Urine also</p> <p>Urine</p>	<p><u>General Biochemistry</u> (cont'd)</p> <p>Biochemical examination activities for the purposes of clinical diagnosis. (cont'd)</p> <p>Quantification of: (cont'd)</p> <p>Transferrin</p> <p>Triglyceride</p> <p>Urate</p> <p>Urea</p> <p>Unsaturated Iron Binding Capacity</p> <p>Valproate</p> <p>Vancomycin</p> <p>Examination activities for the purposes of clinical diagnosis.</p> <p>Quantification of:</p> <p>Amphetamine</p> <p>Barbiturates</p> <p>Benzodiazepine</p> <p>Cannabinoids</p> <p>Cocaine</p> <p>Cotinine</p> <p>Methadone</p> <p>Opiates</p>	<p>In house documented procedures based on equipment manuals and standard methods as specified:</p> <p>Photometry method using Roche Cobas 702 SOPs WSL-AB-COB-006, TDL-AB-COB-005 & WSL-QP-B-001</p> <p>Photometry method using Roche Cobas 702 SOPs BIO-MP1-8, BIO-MP1-7 & BIO-MP1-37</p>



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HUMAN BODY FLUIDS (cont'd)	<u>General Biochemistry</u> (cont'd)	In house documented procedures based on equipment manuals and standard methods as specified: Immunoassay methods using Roche Cobas e801 SOPs BIO-MP1-8, BIO-MP1-7 & BIO-MP1-37
Serum (unless otherwise stated)	Biochemical examination activities for the purposes of clinical diagnosis. (cont'd)	
Plasma only	Quantification of: (cont'd)	
	Adrenocorticotrophic Hormone	
	Alpha-Fetoprotein	
	Anti-Mullerian Hormone	
	Anti-Thyroglobulin antibodies	
	Beta-Human Chorionic Gonadotrophin	
	CA125	
	CA153	
	CA199	
	Calcitonin	
	Carcinoembryonic Antigen	
	Creatine Kinase MB	
	Cortisol	
	Dehydroepiandrosterone Sulphate	
	Digoxin	
	Oestradiol	
	Ferritin	
	Folate	
	Follicle Stimulating Hormone	



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<p>HUMAN BODY FLUIDS (cont'd)</p> <p>Serum (unless otherwise stated)</p>	<p><u>General Biochemistry</u> (cont'd)</p> <p>Biochemical examination activities for the purposes of clinical diagnosis. (cont'd)</p> <p>Quantification of: (cont'd)</p> <p>Human Chorionic Gonadotrophin (free)</p> <p>Prostate Specific Antigen (free & total)</p> <p>FT3</p> <p>FT4</p> <p>Growth Hormone</p> <p>IgE</p> <p>Insulin</p> <p>Luteinising Hormone</p> <p>Macroprolactin (PEG Precipitation)</p> <p>Myoglobin</p> <p>B-Type and (NT-Pro B-Type Natriuretic Peptide)</p> <p>Pregnancy Associated Plasma Protein (PAPP-A)</p> <p>Progesterone</p> <p>Prolactin</p> <p>Parathyroid Hormone</p> <p>Procalcitonin</p>	<p>In house documented procedures based on equipment manuals and standard methods as specified:</p> <p>Immunoassay methods using Roche Cobas e801 SOPs BIO-MP1-8, BIO-MP1-7 & BIO-MP1-37</p>



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HUMAN BODY FLUIDS (cont'd)	<u>General Biochemistry</u> (cont'd)	In house documented procedures based on equipment manuals and standard methods as specified:
Serum (unless stated)	Biochemical examination activities for the purposes of clinical diagnosis. (cont'd)	
Urine	<u>Biochemistry Calculated Parameters:</u>	By calculation using Cobas c702 SOP-MP1-16-Q-1
	<u>Albumin:Creatinine ratio</u>	
	Anion Gap	
	Corrected Calcium	
Urine also	Creatinine Clearance	
	LDL Cholesterol	
	eGFR	
Urine	Protein : Creatinine Ratio	
Urine also	Renal Tubular reabsorption of Phosphate	
	Total Iron Binding Capacity	
	Transferrin Saturation	
Urine also	Osmolality	Freezing Point Depression using Vitech Osmometer SOP BIO-020
Serum	Amyloid A	Immunoassay using Siemens BNII SOP MCH-002
	Apolipoproteins A1 & B	
EDTA Plasma	Homocysteine	
		Electrophoresis using Sebia Hydrasys 2
Serum	Alpha-1 Antitrypsin Phenotyping	SOP MCH-045 (focussing method)
	Alkaline Phosphatase Isoenzymes	SOP MCH-010



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HUMAN BODY FLUIDS (cont'd)	<u>General Biochemistry</u> (cont'd) Biochemical examination activities for the purposes of clinical diagnosis. (cont'd)	In house documented procedures based on equipment manuals and standard methods as specified:
Faeces	Calprotectin	Immunoassay using Thermo Phadia 2500 and Calpro2 ELIA assay SOP-BIO-028
Plasma	Chromogranin A	ELISA using Dynex DS2 and Euro Diagnostica kit SOP MCH-055
EDTA Blood	Ciclosporin Tacrolimus Sirolimus	LCMSMS using Shimadzu 8050 SOP MCH-013
Serum	<u>Trace Metals</u> Copper Zinc Selenium	Mass spectrometry using Agilent ICP-MS SOP MCH-030
Urine	Copper Zinc	
EDTA Blood or hip aspirate	Chromium Cobalt	
Urine	Metanephrines / Metadrenalines: Metanephrine Normetanephrines 3-Methoxytyramine	HPLC using Shimadzu Prominence SOP MCH-006
Serum	5-Hydroxyindoleacetic acid (5HIAA)	SOP MCH-007
Serum	Enhanced Liver Fibrosis: Procollagen 3 Amino terminal peptide (P3NP) Hyaluronic acid (HA) Tissue inhibitor of metalloproteinase (TIMP-1)	Immunoassay using Siemens Advia Centaur SOPs MCH-056 & MCH-057
Serum	Erythropoietin	Immunoassay using Siemens Centaur SOP MCH-MP2-58



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HUMAN BODY FLUIDS (cont'd) Serum	<u>General Biochemistry</u> (cont'd) Biochemical examination activities for the purposes of clinical diagnosis. (cont'd) IgG Subclasses (IgG 1-4)	In house documented procedures based on equipment manuals and standard methods as specified: Immunoassay using Binding Site Optilite SOP MCH-047 & MCH-032
HUMAN BODY FLUIDS (cont'd) Serum / Plasma (unless otherwise stated) Venous samples in serum tube and plasma from EDTA tubes	<u>Virology</u> Examination activities for the purposes of clinical diagnosis. Quantification of: Hepatitis A IgG & IgM Hepatitis B Core Total Antibody Hepatitis B Envelope Antigen Hepatitis B Envelope Antibody Hepatitis B Surface Antigen Hepatitis B Surface Antibody Hepatitis C antibody HIV 1 & 2 Antibody and p24 Antigen Rubella IgG Syphilis Total Antibody SARS-CoV-2 (COVID-19) IgM & IgG HIV 1 & 2 Antibody and p24 Antigen	In house documented procedures based on equipment manuals and standard methods as specified: Immunoassay using Roche Cobas e801 SOPs WSL-AB-COB-006, TDL-AB-COB-005 & WSL-QP-B-001 Elecsys SARS-CoV-2 kit using Roche Cobas e801 SOP BIO-MP1-08 Multiplex Flow Immunoassay using Bio-Rad Bioplex SOP TDL-MAN-033



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<p>HUMAN BODY FLUIDS (cont'd)</p> <p>Serum / plasma (unless otherwise stated)</p> <p>Serum & plasma</p> <p>Venous samples in serum tube and plasma from EDTA tubes</p> <p>Serum / Plasma (unless otherwise stated) (cont'd)</p>	<p><u>Virology</u> (cont'd)</p> <p>Examination activities for the purposes of clinical diagnosis. Detection of:</p> <p>Cytomegalovirus (CMV) IgM & IgG</p> <p>Hepatitis B Core IgM</p> <p>Hepatitis B Surface Antigen (quantitation)</p> <p>Hepatitis C antigen</p> <p>Human T-Cell Lymphotropic Virus (HTLV) I / II Antibody</p> <p>Rubella IgM & IgG</p> <p>Toxoplasma IgM & IgG</p> <p>SARS-CoV-2 (COVID-19) IgG</p> <p>Borrelia IgM & IgG</p> <p>Epstein Barr Virus VCA IgM</p> <p>EBNA IgG</p> <p>EBV VCA-IgG</p> <p>Hepatitis B Core Antibody</p> <p>Hepatitis B Surface Antigen</p> <p>Hepatitis Delta Total Antibodies</p> <p>Herpes Simplex Virus (HSV) 1 & 2 IgG (combined)</p>	<p>In house documented procedures based on equipment manuals and standard methods as specified:</p> <p>Immunoassay using Abbott Architect i2000SR SOPs BIO-010 & BIO-010-Q-010</p> <p>Immunoassay using Abbott Architect i2000SR SOP BIO-MP1-10</p> <p>Chemiluminescence using Diasorin Liaison XL SOP IMM-080</p>



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HUMAN BODY FLUIDS (cont'd)	<u>Virology</u> (cont'd)	In house documented procedures based on equipment manuals and standard methods as specified:
Serum / Plasma (unless otherwise stated) (cont'd)	Examination activities for the purposes of clinical diagnosis.	Chemiluminescence using Diasorin Liaison XL SOP IMM-080
	Herpes Simplex Virus (HSV) 1 & 2 IgM (combined)	
	Herpes Simplex Virus (HSV) 1 IgG	
	Herpes Simplex Virus (HSV) 2 IgG	
	Insulin-Like Growth Factor 1	
	Measles IgM & IgG	
	Mumps IgM & IgG	
	Mycoplasma IgM & IgG	
	Parvovirus IgM & IgG	
	Varicella Zoster Virus IgM & IgG	
	CMV IgG Avidity	
Serum only	CMV Avidity	Immunoassay using Biomerieux Vidas 3 SOP IMM-042
	Hepatitis C Antibody	
Serum only	Borrelia IgM & IgG	
	HIV 1 & 2 Antibody and p24 Antigen	HIV 5 Duo Ultra SOP IMM-081
	HIV 1 & 2 Antibody and p24 Antigen	HIV 6 Duo Quick assay SOP IMM-062
Serum only	Syphilis	RPR using AIX-1000 SOP IMM-014



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Serum / plasma (unless otherwise stated)	<u>Immunology</u> Examination activities for the purposes of clinical diagnosis.	In house documented procedures based on equipment manuals and standard methods as specified:
Serum / plasma (unless stated)	Quantification of: Specific IgG4 Mast Cell Tryptase Specific IgE and IgG	Immunoassay using Thermo Phadia 250 Immunocap SOP IMM-007
Serum / plasma (unless stated)	Quantification of: Allergen Specific IgE Gliadin IgG & IgA Tissue Transglutamase IgA Extractable Nuclear Antigen IgG Sm IgG Jo-1 IgG Ro (SSA) IgG La (SSB) IgG CENP-B IgG U1-RNP-IgG Scl-70 IgG Cyclic Citrullinated Protein IgG Myeloperoxidase IgG Proteinase 3 IgG dsDNA IgG	Immunoassay using Thermo Phadia 2500 Immunocap SOP IMM-007



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HUMAN BODY FLUIDS (cont'd)	<u>Immunology</u> (cont'd) Examination activities for the purposes of clinical diagnosis.	In house documented procedures based on equipment manuals and standard methods as specified:
Serum / plasma (unless stated)	Quantification of: Glomerular Basement Membrane IgG Beta-2 Glycoprotein IgM & IgG	Immunoassay using Thermo Phadia 2500 Immunocap SOP IMM-007
Serum (unless stated)	Quantification of: Antinuclear Antibodies - IgG Anti-Neutrophil Cytoplasmic Antibodies - IgG Endomysial IgA Gastric Parietal Cell IgG Liver Kidney Microsomal IgG Mitochondrial IgG Skin IgG (Pemphigus & Pemphigoid) Smooth muscle IgG Adrenal Gland IgG Chlamydia IgM & IgG Islet Cell IgG Legionella IgG Ovarian IgG Striated Muscle IgG Testicular IgG	Immunoassay using Grifols / Aesku Helios with use of the following kits and SOPs: AESKU (Grifols) – SOP IMM-012 AESKU (Grifols) – SOP IMM-001 AESKU (Grifols) – SOP IMM-036 AESKU (Grifols) – SOP IMM-013 AESKU (Grifols) – SOP IMM-013 AESKU (Grifols) – SOP IMM-013 AESKU (Grifols) – SOP IMM-013 Biodiagnostics – SOP IMM-013 Biodiagnostics - SOP IMM-MP2-3 SeroFIA Savyon (Launch) – SOP IMM-MP2-24 Biodiagnostics - SOP IMM-MP2-3 Vircell (Quest Biomedical) – IMM-MP2-23 Biodiagnostics - SOP IMM-MP2-3 AESKU (Grifols) – SOP IMM-MP2-3 Biodiagnostics - IMM-MP2-3



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HUMAN BODY FLUIDS (cont'd)	<u>Immunology</u> (cont'd) Examination activities for the purposes of clinical diagnosis.	Immunoassay using Manual & Helmed with EUROIMMUN immunoblot kit and Euroline scanner with reference to the following SOPs
Serum	<u>Scleroderma Immunoblot:</u> Antibodies against: Scl-70 CENP A CENP B RP11 RP155 Fibrillarin NOR90 Th/To PM-Scl100 PM-Scl75 Ku PDGFR Ro-52	SOP IMM-MP2-58
Serum	<u>Liver Immunoblot</u> Antibodies against: AMA-M2 M2-3E (BPO) Sp100 PML gp120 LKM-1 LC-1 SLA/LP Ro-52	SOP IMM-MP2-54



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<p>HUMAN BODY FLUIDS (cont'd)</p> <p>Serum</p> <p>Serum</p>	<p><u>Immunology</u> (cont'd)</p> <p>Examination activities for the purposes of clinical diagnosis.</p> <p><u>Myositis Immunoblot</u></p> <p>Antibodies against:</p> <p>Mi-2 alpha Mi-2 beta TIF1-gamma MDA5 NXP2 SAE1 Ku PM-Scl100 PM-Scl75 Jo-1 SRP PL-7 PL-12 EJ OJ Ro-52</p> <p>Quantification of:</p> <p>Anti-Cardiolipin IgM & IgG Hepatitis E IgM and IgG Helicobacter pylori IgG Intrinsic Factor IgG TB Interferon Gamma</p>	<p>Immunoassay using Manual & Helmed with EUROIMMUN immunoblot kit and Euroline scanner with reference to the following SOPs</p> <p>SOP IMM-MP2-21</p> <p>ELISA (automated) using commercial kits and Dynex Agility analyser:</p> <p>Orgentec – SOP IMM-MP2-13 Fortress Diagnostics – SOP IMM-MP2-62 Premier – SOP IMM-MP2-62 Orgentec – SOP IMM-MP2-8 TB Quantiferon assay - SOP IMM-MP2-27</p>



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HUMAN BODY FLUIDS (cont'd)	<u>Immunology</u> (cont'd)	In house documented procedures based on equipment manuals and standard methods as specified:
Serum / plasma (unless stated)	Examination activities for the purposes of clinical diagnosis	ELISA (manual) using the following kits:
	Quantification of:	Binding site – SOP IMM029
	Haemophilus influenzae type b antibody	Bioporto – SOP IMM-032
	Mannose Binding Lectin	Binding Site – SOP IMM-033
	Pneumococcal C.P. Antibodies	QUANTA Lite – SOP IMM-030
	RNA Polymerase Antibodies	Binding Site – SOP IMM-034
	Tetanus Toxoid Antibodies	RSR – SOP IMM-039
	TSH receptor antibodies	Radial immunodiffusion (manual) using Binding Site kit
Serum / plasma (unless stated)	Quantification of:	IMM-026
	Alternative pathway (AP50)	IMM-031
	Classical Pathway (CH10)	IMM-027
	C1 Esterase Inhibitor	



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HUMAN BODY FLUIDS (cont'd)	<u>Immunology</u> (cont'd)	In house documented procedures based on equipment manuals and standard methods as specified:
Serum (unless otherwise stated)	Examination activities for the purposes of clinical diagnosis (cont'd).	
	Specific IgE	Immuno Solid Phase Allergy Chip and Luxscan scanner IMM-016
	Syphilis antibody	Manual TPPA using Serodia kit and UV microscopy SOP IMM-077 and IMM-015
	HIV 1 & 2 Antibody and p24 Antigen	Immunoassay using Geenius SOP IMM-064
	HIV 1 & 2 Antibody and p24 Antigen	Immunoassay using Determine SOP IMM-063
	Rheumatoid Factor	Latex agglutination using Rheumajet SOP IMM-048
	Anti-Streptolysin O	Latex agglutination using Rheumajet SOP IMM-050
	Herpes (HSV) 1& 2 Type specific IgG	Immunoblot using Focus Diagnostics Herpeselect 1&2 immunoblot IgG kit SOP IMM-077
	Brucella IgG	Latex agglutination using Rose Bengal kit SOP IMM-085



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<p>HUMAN BODY FLUIDS (cont'd)</p> <p>Peripheral Blood</p> <p>Bone Marrow, Peripheral Blood, CFS, Pleural Fluid, Ascitic Fluid</p>	<p><u>Haematology / Flow Cytometry</u></p> <p>Haematology / Immunology examination activities for the purposes of clinical diagnosis.</p> <p>Lymphocyte subsets CD19 Natural Killer cells</p> <p>Acute Leukaemia Screen:</p> <p>Detection of:</p> <p><u>Acute Primary</u></p> <p>CD3 CD7 CD34 CD33 CD10 CD117 CD20 CD19 HLADR CD45</p> <p><u>Acute Intracellular</u></p> <p>TPT MPO CD34 CD79a CD3 CD45</p> <p><u>Acute Myeloid</u></p> <p>CD11b CD18 CD34 CD13 CD33 CD117 CD56 CD2 CD15 CD45</p>	<p>In house documented procedures based on equipment manuals and standard methods as specified:</p> <p>Flow cytometry using Beckman Coulter Aquios SOP FFC-003</p> <p>Flow cytometry using DuraClone kit with Beckman Coulter T-Q Prep, Navios & microscopy FFC-002, FFC-004, FFC-008</p>



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<p>HUMAN BODY FLUIDS (cont'd)</p>	<p><u>Haematology / Flow Cytometry</u></p> <p>Haematology / Immunology examination activities for the purposes of clinical diagnosis.</p> <p><u>Acute B-Lymphoid</u></p> <p>Kappa Lambda CD34 CD13 CD10 CD79b CD38 CD19 CD22</p> <p><u>Chronic B-Lymphoid</u></p> <p>Kappa Lambda CD10 CD25 (stacked tube) CD103 CD5 CD19 FMC7 CD45 CD22 CD79b</p> <p><u>Chronic T-Lymphoid</u></p> <p>CD4 CD8 CD3 CD56 CD7 CD16 CD2 CD57 CD45</p>	<p>In house documented procedures based on equipment manuals and standard methods as specified:</p>



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<p>HUMAN BODY FLUIDS (cont'd)</p>	<p><u>Haematology / Flow Cytometry</u></p> <p>Haematology / Immunology examination activities for the purposes of clinical diagnosis.</p> <p>Chronic Screen</p> <p>CD8/Kappa CD4/Lambda CD5 CD14 CD33 CD23 CD20 CD56 CD34 CD19 CD10 CD3 CD45</p> <p>Acute T lymphoid</p> <p>CD1a CD7 CD34 CD13 CD16 CD4 CD5 CD2 CD8 CD45</p>	<p>In house documented procedures based on equipment manuals and standard methods as specified:</p>



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HUMAN BODY FLUIDS (cont'd)	<u>Haematology</u> Haematological examination activities for the purposes of clinical diagnosis.	In house documented procedures based on equipment manuals and standard methods as specified:
EDTA Blood	Full Blood Count: White blood cells, neutrophils, lymphocytes, eosinophils, monocytes, basophils, nucleated red blood cells Red blood cells, platelets Haemoglobin Mean cell volume, mean cell haemoglobin, mean cell haemoglobin concentration, red cell distribution width, immature platelet fraction	Sysmex XN10 & XN20 with reference to the following methods: SOP HAE-001 by fluorescence flow cytometry by impedance by SLS photometry by calculation
EDTA Whole Blood	Reticulocytes	Flow cytometry using Sysmex XN10 SOP WSL-AH-027
EDTA Blood	Blood film morphology (including malaria)	Sysmex SP50 Automated Blood Film Maker and Stainer using May Grunwald Giemsa stain SOP 3139
EDTA Blood	Erythrocyte sedimentation rate	Starrsed Interrliner (automated) SOP WSL-AH-006
EDTA Blood	Erythrocyte sedimentation rate	Manual method using Dispettes WSL-AH-021
EDTA Blood	Glycated Haemoglobin HbA1c	Ion-exchange HPLC using TOSOH G8 SOP WSL-AB-TOS-007
EDTA Blood	Glycated Haemoglobin (Borronate Affinity A1c)	Borronate Affinity using Menarini Hb9210 SOP SHAE-006



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HUMAN BODY FLUIDS (cont'd)	<u>Haematology</u> (cont'd) Haematological examination activities for the purposes of clinical diagnosis. (cont'd)	In house documented procedures based on equipment manuals and standard methods as specified:
Serum / Plasma	Detection of Infectious Mononucleosis Heterophile Antibody	Agglutination using BioKit Monolates Rapid test SOP WSL-AH-019
Plasma	Coagulation: Prothrombin Time International Normalised ratio Activated Partial Thromboplastin Time (APTT) APTT ratio Fibrinogen Thrombin D-Dimer	By light absorption using Sysmex CS5100 SOPs COAG-006, 007 & 008
Bone Marrow & Urine	Haemosiderin	Sigma Iron Stain kit followed by microscopy SOP FFC-007
Bone marrow aspirate	Film assessment & cell differential	MGG Staining kit with Sysmex RAL Stainer followed by microscopy SOP FFC-006
EDTA Blood	Detection of Sickle Cell Abnormal haemoglobin	Manual method using which Helena HBS Solubility kit SOP WSL-AH-018
EDTA / Lithium Heparin	Identification and quantitation of Haemoglobin variants	Capillary electrophoresis using Sebia Capillarys 2 SOP SHAE-002
	Identification of Haemoglobin variants	HPLC using Menarini Hb9210 SOP SHAE-003
EDTA / Lithium Heparin	G6PDH screen	Flourescent Spot Screen test using Trinity Biotech kit and Camag longwave Light Box SOP SHAE-020



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Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
HUMAN BODY FLUIDS (cont'd)	<u>Haematology</u> (cont'd) Haematological examination activities for the purposes of clinical diagnosis. (cont'd)	In house documented procedures based on equipment manuals and standard methods as specified:
EDTA Blood	Eosin 5-maleimide (Hereditary Spherocytosis Detection)	Flow Cytometry using Beckman Coulter Navios SOP SHAE-005
EDTA / Lithium Heparin	G6PD Quantitation	Spectrophotometry using Pointe Scientific kit and Shimadzu UV-1800 Spectrophotometer SOP SHAE-007
Formalin fixed tissue	Tissue Iron	Spectrophotometry using Labtech Hotblock and Shimadzu UV-1800 Spectrophotometer SOP SHAE-015
EDTA / Lithium Heparin	Pyruvate Kinase	Spectrophotometry using Shimadzu UV-1800 Spectrophotometer SOP SHAE-008



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Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p>HUMAN BODY FLUIDS (cont'd)</p> <p>Urine</p>	<p><u>Manual Biochemistry</u></p> <p>Biochemical examination activities for the purposes of clinical diagnosis.</p> <p>Quantification of:</p> <p>Steroid profile:</p> <p>Androsterone (5a) Aetiocholanolone (5b) Dehydroepiandrosterone 11-hydroxyandrosterone 11-hydroxyaetiocholanolone 16-hydroxy-DHA (Pk 1) 16-hydroxy-DHA (Pk 1) Pregnanediol (Progesterone) Pregnanetriol (17-OH-Prog) Androstenetriol Tetrahydro-11-deoxycortisol Tetrahydrocortisone Allo-Tetrahydrocorticosterone Tetrahydrocortisol Allo-THF Cortolone Cortolone + cortol Cortol 17-hydroxypregnanolone Pk1 17-hydroxypregnanolone Pk2 11-oxo-pregnanetriol Tetrahydro-11-Deoxycortisol Hexahydro-11-deoxycortisol 1 Hexahydro-11-deoxycortisol 2 Androstenediol Pregnenediol Pregnenetriol 16β-hydroxy-DHA (16-oxo-androstenediol) and 15,16-dihydroxy-DHA 16,18 dihydroxy-DHA (Pk 1) 16,18 dihydroxy-DHA (Pk 2) 16-hydroxypregnenolone 6-hydroxy- THE 20beta-cortolone</p>	<p>In house documented procedures based on equipment manuals and standard methods as specified below:</p> <p>Gas chromatography mass spectrometry using Shimadzu TQ 8040 with reference to:</p> <p>SOP-MCH-044</p>



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Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
HUMAN BODY FLUIDS (cont'd)	<u>Manual Biochemistry</u> (cont'd)	In house documented procedures based on equipment manuals and standard methods as specified below:
Urine (cont'd)	Biochemical examination activities for the purposes of clinical diagnosis. (cont'd)	Gas chromatography mass spectrometry using Shimadzu TQ 8040 with reference to:
	Quantification of: (cont'd)	SOP MCH-044
	Steroid profile: (cont'd)	Liquid chromatography mass spectrometry using Shimadzu 8060:
	6-hydroxy-20alphacortolone 6-hydroxy-20beta-cortolone 1-hydroxy-20beta-cortolone 15,17-dihydroxypregnanolone Oestriol 3,16, 17-trihydroxy-5-pregnane-7,20-dione 6-hydroxy-tetrahydro-11-deoxycortisol	SOP MCH-071
Plasma / Serum	17-Hydroxyprogesterone	SOP MCH-026
Plasma	Metanephrines / Metadrenalines: Normetanephrine Metanephrine 3-Methoxytyramine	SOP MCH-071
Serum	Androstenedione	Using IL Aries and Shimadzu UV-1800 SOPs 46, 244, 245 & 442
Sonicated Tissue from Liver	Liver enzyme analysis: Alanine:Glyoxylate aminotransferase (AGT) activity. AGT immunoreactivity Glyoxylate reductase (GR) activity GR immunoreactivity	Using IL Aries SOPs MCH-020 and 022
Urine	Urine metabolites: (oxalate, citrate)	Using IL Aries SOP MCH-021
Plasma	Oxalate	



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HUMAN BODY FLUIDS (cont'd)	<u>Manual Biochemistry</u> (cont'd)	In house documented procedures based on equipment manuals and standard methods as specified below:
Urine	Biochemical examination activities for the purposes of clinical diagnosis. (cont'd)	
	Primary hyperoxaluria metabolites:	SOP MCH-025 by liquid chromatography – mass spectrometry using Shimadzu 8060
	U glycolate Glycolate: creatinine ratio U glycerate Glycerate: creatinine ratio U hydroxyl-oxo—glutarate (HOG) U HOG: creatinine ratio U dihydroxyglutarate (DHG) U DHG: creatinine ratio	
Renal calculi	Qualitative and semi-quantitative detection of organic and inorganic compounds	Fourier Transform Infrared Spectroscopy using Thermo Nicolet iS10 SOP MCH-MP2-24
Serum	Detection of normal and abnormal protein fractions and electrophoretic patterns	Capillary zone electrophoresis using Sebia Capillarys 3 SOP BIO19
Serum	Quantitation of Paraproteins	SOP BIO-19 Agarose gel electrophoresis and immunofixation using Sebia Hydrasys 2 with reference to:
Serum / Urine	Detection of paraproteins and bence jones proteins (immunofixation)	SOP MCH-033
Urine	Quantitation of Bence Jones protein (electrophoresis)	SOP MCH-012



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Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
HUMAN BODY FLUIDS (as stated)	<u>Other Protein Biochemistry</u> Biochemical examination activities for the purposes of clinical diagnosis. Quantification of:	In house documented procedures based on equipment manuals and standard methods as specified below:
Serum	Detection / quantification of cryoproteins	SOP MCH-043
Serum	Creatine kinase isoenzymes	SOP MCH-011
Serum	Free light chains	Immunoturbidimetry using Optilite SOP MCH-032 and 034
Sweat	Chloride	colourimetry using Wescor SOP MCH-037
Urine	Total porphyrins / porphobilinogen	Spectrophotometry using Shimadzu UV-1800 SOP MCH-038
CSF	Haem pigments (xanthochromia)	Spectrophotometry using Shimadzu UV-1800 Spectrophotometer SOP MCH-074
Urine	Reducing substances	SOP 428 by colourimetry using Benedicts solution
Urine	Cysteine and homocysteine	SOP MCH-014 using manual colourimetric method
END		