


Schedule of Accreditation

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United Kingdom Accreditation Service

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

 <p>Accredited to ISO 15189:2012</p>	<h3>HSL (Analytics) LLP</h3> <p>Issue No: 005 Issue date: 23 September 2020</p>	
	<p>Department of Blood Sciences The Halo Building 1 Mabledon Place London WC1H 9AJ</p>	<p>Contact: Jacqueline Sutherland Tel: +44 (0) 020 307 7342 E-Mail: jacqueline.sutherland@hslpathology.com Website: www.hslpathology.com</p>
<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 WSL-AB-COB-006, TDL-AB-COB-005 & WSL-QP-B-001
Urine also	Sodium	
Urine also	Potassium	Photometry method using Roche Cobas 702 SOPs WSL-AB-COB-006, TDL-AB-COB-005 & WSL-QP-B-001
	Chloride	
Urine also	Quantification of: 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><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 WSL-AB-COB-006, TDL-AB-COB-005 & WSL-QP-B-001</p>



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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><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>Glutamate dehydrogenase</p> <p>Glucose</p> <p>Haptoglobin</p> <p>HDL Cholesterol</p> <p>IgG</p> <p>IgA</p> <p>IgM</p> <p>Iron</p> <p>Lactate Dehydrogenase</p> <p>Lipase</p> <p>Lipoprotein (a)</p> <p>Lithium</p> <p>Magnesium</p> <p>Phenytoin</p> <p>Phosphate</p> <p>Rheumatoid Factor</p> <p>Soluble Transferrin Receptor</p> <p>Theophylline</p> <p>Total Protein</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>



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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 WSL-AB-COB-006, TDL-AB-COB-005 & WSL-QP-B-001</p>



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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>Adrenocorticotrophic Hormone</p> <p>Alpha-Fetoprotein</p> <p>Anti-Mullerian Hormone</p> <p>Anti-Thyroglobulin antibodies</p> <p>Beta-Human Chorionic Gonadotrophin</p> <p>CA125</p> <p>CA153</p> <p>CA199</p> <p>Calcitonin</p> <p>Carcinoembryonic Antigen</p> <p>Creatine Kinase MB</p> <p>Cortisol</p> <p>Dehydroepiandrosterone Sulphate</p> <p>Digoxin</p> <p>Oestradiol</p> <p>Ferritin</p> <p>Folate</p> <p>Follicle Stimulating Hormone</p>	<p>In house documented procedures based on equipment manuals and standard methods as specified:</p> <p>Immunoassay methods using Roche Cobas 801 OPs WSL-AB-COB-006, TDL-AB-COB-005 & WSL-QP-B-001</p>



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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 801 OPs WSL-AB-COB-006, TDL-AB-COB-005 & WSL-QP-B-001</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 otherwise stated)	Biochemical examination activities for the purposes of clinical diagnosis. (cont'd)	
	Quantification of: (cont'd)	Immunoassay methods using Roche Cobas 801 OPs WSL-AB-COB-006, TDL-AB-COB-005 & WSL-QP-B-001
	Sex Hormone-Binding Globulin	
	T3 (total)	
	T4 (total)	
	Testosterone	
	Thyroid Stimulating Hormone	
	Troponin T (High Sensitivity)	
	Vitamin B12	
	25-hydroxy Vitamin D	
	Thyroid Peroxidase Antibody	
	Quantification of:	Immunoassay using Abbott Architect SOPs BIO-010 & BIO-010-Q-010
	CA125	
	HE4	
	Homocysteine	
	ROMA	
Whole Blood EDTA	Red Cell Folate	
	Troponin I (High Sensitivity)	
	Vitamin B12 (Active)	



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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)	
	<u>Biochemistry Calculated Parameters:</u>	By calculation using Cobas e702 SOP BIO-024
	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	
	Transferring 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:
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
	<u>Trace Metals</u>	Mass spectrometry using Agilent ICP-MS SOP MCH-030
Serum	Copper Zinc Selenium	
Urine	Copper Zinc	
EDTA Blood or hip aspirate	Chromium Cobalt	
Urine	Metanephrines / Metadrenalines: Metanephrine Normetanephrines 3-Methoxytyramine	HPLC using Shimadzu Prominence SOP MCH-006
	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	IgG Subclasses (IgG 1-4)	Immunoassay using Binding Site Optilite SOP MCH-047 & MCH-032



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<p>HUMAN BODY FLUIDS (cont'd)</p> <p>Serum / Plasma (unless otherwise stated)</p>	<p><u>Virology</u></p> <p>Examination activities for the purposes of clinical diagnosis.</p> <p>Quantification of:</p> <p>Hepatitis A IgG & IgM</p> <p>Hepatitis B Core Total Antibody</p> <p>Hepatitis B Envelope Antigen</p> <p>Hepatitis B Envelope Antibody</p> <p>Hepatitis B Surface Antigen</p> <p>Hepatitis B Surface Antibody</p> <p>Hepatitis C antibody</p> <p>HIV 1 & 2 Antibody and p24 Antigen</p> <p>Rubella IgG</p> <p>Syphilis Total Antibody</p> <p>HIV 1 & 2 Antibody and p24 Antigen</p> <p>Cytomegalovirus (CMV) IgM & IgG</p> <p>Hepatitis B Core IgM</p> <p>Hepatitis B Surface Antigen (quantitation)</p> <p>Human T-Cell Lymphotropic Virus (HTLV) I / II Antibody</p> <p>Rubella IgM & IgG</p> <p>Toxoplasma IgM & IgG</p>	<p>In house documented procedures based on equipment manuals and standard methods as specified:</p> <p>Immunoassay using Roche Cobas 801 SOPs WSL-AB-COB-006, TDL-AB-COB-005 & WSL-QP-B-001</p> <p>Multiplex Flow Immunoassay using Bio-Rad Bioplex SOP TDL-MAN-033</p> <p>Immunoassay using Abbott Architect SOPs BIO-010 & BIO-010-Q-010</p>



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<p>HUMAN BODY FLUIDS (cont'd)</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.</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>Herpes Simplex Virus (HSV) 1 & 2 IgM (combined)</p> <p>Herpes Simplex Virus (HSV) 1 IgG</p> <p>Herpes Simplex Virus (HSV) 2 IgG</p> <p>Insulin-Like Growth Factor 1</p> <p>Measles IgM & IgG</p> <p>Mumps IgM & IgG</p> <p>Mycoplasma IgM & IgG</p> <p>Parvovirus IgM & IgG</p> <p>Varicella Zoster Virus IgM & IgG</p>	<p>In house documented procedures based on equipment manuals and standard methods as specified:</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) Examination activities for the purposes of clinical diagnosis.	In house documented procedures based on equipment manuals and standard methods as specified:
Serum	CMV Avidity Hepatitis C Antibody HIV 1 & 2 Antibody and p24 Antigen HIV 1 & 2 Antibody and p24 Antigen	Immunoassay using Biomerieux Vidas 3 SOP IMM-042 HIV 5 Duo Ultra SOP IMM-081 HIV 6 Duo Quick assay SOP IMM-062
Serum	Syphilis	RPR using AIX-1000 SOP IMM-014
	<u>Immunology</u>	
Serum / plasma (unless otherwise stated)	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 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	Immunoassay using 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) (cont'd)	Quantification of: (cont'd) 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 Crithidia Glomerular Basement Membrane IgG Beta-2 Glycoprotein IgM & IgG	Immunoassay using Phadia 2500 Immunocap SOP IMM-007
Serum (unless stated)	Quantification of: Antinuclear Antibodies - IgG Anti-Neutrophil Cytoplasmic Antibodies - IgG Endomysial IgA & IgG Gastric Parietal Cell 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



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<p>HUMAN BODY FLUIDS (cont'd)</p> <p>Serum (unless stated) (cont'd)</p>	<p><u>Immunology</u> (cont'd)</p> <p>Examination activities for the purposes of clinical diagnosis.</p> <p>Quantification of: (cont'd)</p> <p>Liver Kidney Microsomal IgG</p> <p>Mitochondrial IgG</p> <p>Skin IgG (Pemphigus & Pemphigoid)</p> <p>Smooth muscle IgG</p> <p>Adrenal Gland IgG</p> <p>Chlamydia IgM & IgG</p> <p>Islet Cell IgG</p> <p>Legionella IgG</p> <p>Ovarian IgG</p> <p>Striated Muscle IgG</p> <p>Testicular IgG</p>	<p>In house documented procedures based on equipment manuals and standard methods as specified:</p> <p>Immunoassay using Grifols / Aesku Helios with use of the following kits and SOPs:</p> <p>AESKU (Grifols) – SOP IMM-013</p> <p>AESKU (Grifols) – SOP IMM-013</p> <p>AESKU (Grifols) – SOP IMM-013</p> <p>Biodiagnostics – SOP IMM-013</p> <p>Biodiagnostics - SOP IMM-MP2-3</p> <p>SeroFIA Savyon (Launch) – SOP IMM-MP2-24</p> <p>Biodiagnostics - SOP IMM-MP2-3</p> <p>Vircell (Quest Biomedical) – SOP IMM-MP2-23</p> <p>Biodiagnostics - SOP IMM-MP2-3</p> <p>AESKU (Grifols) – SOP IMM-MP2-3</p> <p>Biodiagnostics - IMM-MP2-3</p>



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HUMAN BODY FLUIDS (cont'd)	<u>Immunology</u> (cont'd)	Immunoassay using Manual & Helmed with EUROIMMUN immunoblot kit and Euroline scanner with reference to the following SOPs
Serum	Examination activities for the purposes of clinical diagnosis. <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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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>Myositis Immunoblot</u> Antibodies against: 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	SOP IMM-MP2-21
Serum / plasma (unless stated)	Quantification of: Anti-Cardiolipin IgM & IgG Anti-Phospholipid Antibodies dsDNA IgG Crithidia Hepatitis E IgM and IgG Helicobacter pylori IgG Intrinsic Factor IgG TB Interferon Gamma	ELISA (automated) using commercial kits and Gemini analyser: Organotec – SOP IMM-028 Organotec – SOP IMM-024 Eurodiagnostica – SOP IMM-017 Fortress Diagnostics – SOP IMM-075 Premier – SOP IMM-045 Orgentec – SOP IMM-018 TB Quantiferon assay - SOP IMM-047



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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	
	Quantification of:	ELISA (manual) using the following kits:
	Haemophilus influenzae type b antibody	Binding site – SOP IMM029
	Mannose Binding Lectin	Bioporto – SOP IMM-032
	Pneumococcal C.P. Antibodies	Binding Site – SOP IMM-033
	RNA Polymerase Antibodies	QUANTA Lite – SOP IMM-030
	Tetanus Toxoid Antibodies	Binding Site – SOP IMM-034
	TSH receptor antibodies	RSR – SOP IMM-039
Serum / plasma (unless stated)	Quantification of:	Radial immunodiffusion (manual) using Binding Site kit
	Alternative pathway (AP50)	IMM-026
	Classical Pathway (CH10)	IMM-031
	C1 Esterase Inhibitor	IMM-027



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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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HSL (Analytics) LLP

Issue No: 005 Issue date: 23 September 2020

Testing performed at main address only

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



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<p>HUMAN BODY FLUIDS (cont'd)</p>	<p><u>Haematology / Flow Cytometry</u> (cont'd)</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>CD4 CD8 Kappa Lambda CD3 CD23 CD10 CD25 CD103 CD5 CD20 CD19 FMC7 CD45</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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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 (Borrionate Affinity A1c)	Borrionate 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 & Peripheral Blood	Film assessment & cell differential	Sigma Peroxidase stain kit followed by microscopy WSL-AH-031 and WSL-AH-028
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 of Haemoglobin variants	Capillary electrophoresis using Sebia Capillarys 2 SOP SHAE-002 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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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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<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) Androstenediol 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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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)	
	Quantification of: (cont'd)	Gas chromatography mass spectrometry using Shimadzu TQ 8040 with reference to:
	Steroid profile: (cont'd)	SOP MCH-044
	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	Liquid chromatography mass spectrometry using Shimadzu 8060:
Plasma / Serum	17-Hydroxyprogesterone	SOP MCH-071
Plasma	Metanephrines / Metadrenalines: Normetanephrine Metanephrine 3-Methoxytyramine	SOP MCH-026
Serum	Androstenedione	SOP MCH-071
Sonicated Tissue from Liver	Liver enzyme analysis: Alanine:Glyoxylate aminotransferase (AGT) activity. AGT immunoreactivity Glyoxylate reductase (GR) activity GR immunoreactivity	Using IL Aries and Shimadzu UV-1800 SOPs 46, 244, 245 & 442
Urine	Urine metabolites: (oxalate, citrate)	Using IL Aries SOPs MCH-020 and 022
Plasma	Oxalate	Using IL Aries SOP MCH-021



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HUMAN BODY FLUIDS (cont'd)	<u>Manual 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 below:
Urine	Primary hyperoxaluria metabolites: 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	SOP MCH-025 by liquid chromatography – mass spectrometry using Shimadzu 8060
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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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		