


# Schedule of Accreditation

issued by

## United Kingdom Accreditation Service

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

 <p><b>10139</b></p> <p>Accredited to ISO 15189:2022</p>	<p><b>Sheffield Teaching Hospitals NHS Foundation Trust</b></p> <p>Issue No: 008 Issue date: 12 June 2025</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
<p>HUMAN BODY FLUIDS</p> <p>Blood, Urine, CSF, Dried Blood Spot</p> <p>Blood, Bile, Dried Blood Spot</p> <p>Blood, Urine</p> <p>Blood, Urine</p> <p>Blood</p> <p>Urine</p>	<p><u>Biochemistry examination activities for the purpose of clinical diagnosis:</u> <u>Metabolic biochemistry</u></p> <p>Quantitative Amino Acids</p> <p>Acylcarnitines</p> <p>Carnitine</p> <p>Bile salts: Glycodihydroxycholanoate Glycotrihydroxycholanoate Taurodihydroxycholanoate Taurotrihydroxycholanoate</p> <p>Biotinidase</p> <p>Qualitative Amino Acids</p>	<p>In house documented methods incorporating manufacturers' instructions where relevant</p> <p>Biochrom 30 analysers using ion exchange chromatography SOP 123022</p> <p>Waters TQD Tandem Mass Spectrometer: SOP 127003</p> <p>SOP 127003</p> <p>SOP 127301</p> <p>Horiba Pentra using enzymatic assay with coloured product SOP 130005</p> <p>Manual Thin Layer Chromatography SOP 122001</p>



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HUMAN BODY FLUIDS (cont'd)	<u>Biochemistry examination activities for the purpose of clinical diagnosis: Metabolic biochemistry (cont'd)</u>	In house documented methods incorporating manufacturers' instructions where relevant
Urine	Homovanillic Acid (HVA) / Vanillylmandelic Acid (VMA)	Shimadzu GCMS (QP2010): SOP 124003 (HVA/VMA)
Urine	Methylmalonic Acid (MMA)	SOP 124004
Urine	Ethylmalonic Acid (EMA)	SOP 124007
Urine	Orotic Acid	SOP 124002
Urine	Organic Acids (Qualitative)	SOP 124001
Blood	Very Long Chain Fatty Acids-Phytanate, Pristinate; Docosahexanoic acid Tetracosanoic acid Hexacosanoic acid	Shimadzu GCMS (QP2020): SOP 124315
Blood	Sterols-Cholesterol, 7-Dehydrocholesterol, 8-Dehydrocholesterol, Cholesterol	SOP 124313
Blood	Phytosterols-Sitosterol, Campesterol, Stigmasterol	SOP 124313
Blood	Plasmalogens	SOP 124312
Urine	Dimethylglycine	SOP 124304
Blood, Urine, CSF	Pipecolic Acid	Agilent GCMS: SOP 124311



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HUMAN BODY FLUIDS (cont'd)	<u>Biochemistry examination activities for the purpose of clinical diagnosis:</u> <u>Metabolic biochemistry</u> (cont'd)	In house documented methods incorporating manufacturers' instructions where relevant
Blood	Homocysteine (Total)	Shimadzu HPLC: SOP 125003
Urine	Collagen Cross-Links-Pyridinoline, Deoxypyridinoline	SOP 125004
Urine	Trimethylamine and Trimethyl -N- Oxide	Shimadzu Headspace GCMS SOP 124314
Blood	Galactosaemia Screen (G1PUT activity)	Manual assay using Beutler principle SOP 122005
Urine	Glycosaminoglycan Quantitation	Ortho Clinical Diagnostics Vitros 5600 using Dimethyl Methylene Blue assay SOP 122014
Blood	Intermediary Metabolites - Free Fatty Acids, 3-Hydroxy Butyrate	Ortho Clinical Diagnostics Vitros 5600 using Wako FFA reagent/ Randox 3OHB reagent SOP 113140
Urine	Glycosaminoglycan	Electrophoresis using Cleaver Scientific electrophoresis tanks (CSL/CELLAS) Consort E143 power pack Consort EV22 power pack SOP 122009
Blood	25-Hydroxy Vitamin D2 & D3	AB Sciex Triple Quad 5500 Tandem Mass Spectrometer. Exion LC HPLC system SOP 161001



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HUMAN BODY FLUIDS (cont'd)	<u>Biochemistry examination activities for the purpose of clinical diagnosis:</u> <u>Tissue Culture</u>	In house documented methods incorporating manufacturers' instructions where relevant
Fibroblasts	Pyruvate carboxylase assay	Radioimmunoassay:  14C uptake assay with measurement using Packard 1900CA Scintillation Counter SOP 142027
Fibroblasts	Glutaryl-CoA dehydrogenase activity	Measurement of release of 14CO <sub>2</sub> by Packard 1900CA Scintillation Counter SOP 142010
Fibroblasts	Palmitoyl carnitine transferase Type II assay	14C uptake assay with measurement using Packard 1900CA Scintillation Counter SOP 142006
Fibroblasts	Propionyl-CoA carboxylase and Holocarboxylase Synthetase	14C uptake assay with measurement using Packard 1900CA Scintillation Counter SOP 142023
Fibroblasts	Myristate/ Oleate/ Palmitate Flux assays	3H labelled release assay measured on Packard 1900CA Scintillation Counter SOP 142029
Fibroblasts	L-Valine breakdown	Measurement of the release of 14CO <sub>2</sub> by Packard 1900CA Scintillation Counter SOP 142012
Fibroblasts	Octanoate breakdown	3H labelled release assay measured on Packard 1900CA Scintillation Counter SOP 142018
Fibroblasts	Leucine breakdown	Measurement of the release of 14CO <sub>2</sub> by Packard 1900CA Scintillation Counter SOP 142019
Fibroblasts	BCA Protein Assay	Horiba Pentra – Colourimetric assay SOP 142015



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HUMAN BODY FLUIDS (cont'd)	<u>Biochemistry examination activities for the purpose of clinical diagnosis:</u> <u>Acute Chemistry</u>	In house documented methods incorporating manufacturers' instructions where relevant
Blood	HbA1c	Siemens DCA Advantage. Immunoagglutination. SOP 115042  Ortho-Clinical Diagnostics, Vitros 5600 using SOP 113143
Blood	Albumin	Colourmetric assay
Blood	Alkaline Phosphatase (ALP)	Enzymatic assay
Blood	Alanine Aminotransferase (ALT)	Enzymatic assay
Blood	Ammonia	Colourmetric assay
Blood, Urine	Amylase (& Amylase/ Creatinine ratio)	Enzymatic assay
Blood	Aspartate Amino Transferase (AST)	Enzymatic assay
Blood	C-Reactive Protein (CRP)	Immunoassay
Blood, Urine	Calcium (& Calcium/ Creatinine Ratio)	Colourmetric assay
Blood	Chloride	Potentiometric assay
Blood	Cholesterol	Colourmetric assay
Blood, Urine	Creatinine	Enzymatic assay
Blood	Creatine Kinase (CK)	Enzymatic assay
CSF	CSF Glucose (CSF/Plasma Ratio)	Colourmetric assay
CSF	CSF Protein	Colourmetric, assay
Blood	Gamma Glutamyl Transferase (GGT)	Enzymatic assay
Blood	Gentamicin	Immunoassay
Blood, Urine, CSF	Glucose	Colourmetric assay



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HUMAN BODY FLUIDS (cont'd)	<u>Biochemistry examination activities for the purpose of clinical diagnosis:</u> <u>Acute Chemistry (cont'd)</u>	In house documented methods incorporating manufacturers' instructions where relevant  Ortho-Clinical Diagnostics, Vitros 5600 using SOP 113143:
Blood	High Density Lipoprotein (HDL)	Colourmetric assay
Blood	Iron	Colourmetric assay
Blood	Lactate	Colourmetric assay
CSF	Lactate (CSF)	Colourmetric assay
Blood	Lactate Dehydrogenase (LDH)	Enzymatic assay
Blood, Urine	Magnesium	Colourmetric assay
Blood	Paracetamol	Colourmetric assay
Blood, Urine	Phosphate	Colourmetric assay
Blood, Urine	Potassium	Potentiometric assay
Blood	Protein (Total)	Colourmetric assay
Urine	Protein (& Protein/Creatinine Ratio)	Randox Colourmetric assay
Blood	Ethanol	Colourmetric assay
Blood	Corrected Calcium	Calculated parameter
Blood	Salicylate	Colourmetric assay
Blood, Urine	Sodium	Potentiometric assay
Blood	Tobramycin	Immunoassay
Blood	Triglycerides	Colourmetric assay
Blood, Urine	Urea	Colourmetric assay
Blood, Urine	Uric Acid	Colourmetric assay



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HUMAN BODY FLUIDS (cont'd)	<u>Biochemistry examination activities for the purpose of clinical diagnosis: Acute Chemistry (cont'd)</u>	In house documented methods incorporating manufacturers' instructions where relevant
Blood	Caffeine	Ortho-Clinical Diagnostics, Vitros 5600 using SOP 113143: EMIT
Blood	Unconjugated and Conjugated Bilirubin	Colourmetric assay
Blood	Total Bilirubin	Colourmetric assay
Blood	Bicarbonate	Colourmetric assay
Blood	Low Density Lipoprotein (LDL)	Calculated parameter
Urine	Creatinine (Modified Jaffe)	Colourmetric assay
Blood	Vitamin B12	Immunoassay
Blood	Cortisol	Immunoassay
Blood	Ferritin	Immunoassay
Blood	Folate	Immunoassay
Blood	Free Thyroxine (FT4)	Immunoassay
Blood	Parathyroid Hormone (PTH)	Immunoassay
Blood	Thyroid Stimulating Hormone (TSH)	Immunoassay
Blood	eGFR – estimated glomerular filtration rate	Calculated parameter
Blood	Anion Gap	Calculated parameter



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HUMAN BODY FLUIDS (cont'd)	<u>Biochemistry examination activities for the purpose of clinical diagnosis: Acute Chemistry (cont'd)</u>	In house documented methods incorporating manufacturers' instructions where relevant
Blood	Cyclosporine	Ortho-Clinical Diagnostics, Vitros 5600 using SOP 113150a:  Immunoassay
Blood	FK506 (Tacrolimus)	Ortho-Clinical Diagnostics, Vitros 5600 using SOP 113150b:  Turbidimetric immunoassay
Blood	Methotrexate	Ortho-Clinical Diagnostics, Vitros 5600 using SOP 113150c:  ARK Competitive Immunoassay
Blood, Urine	Osmolality	Advanced Instruments – Depression of freezing point SOP112001
Sweat	Sweat Chloride	Corning MKII 9265 Chloride Meter – Coulometry SOP 111004
	<u>Newborn Screening</u>	Documented in-house methods to meet the requirements of the NBS screening programme as defined in the July 2018 version of "Newborn Blood Spot Screening: laboratory QA evidence requirements"
Dried Blood Spot	Thyroid Stimulating Hormone (TSH)	Perkin Elmer GSP Fluoroimmunoassay SOP 151442
Dried Blood Spot	Immunoreactive Trypsin (IRT)	Perkin Elmer GSP Fluoroimmunoassay SOP 151443



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HUMAN BODY FLUIDS (cont'd)	<u>Biochemistry examination activities for the purpose of clinical diagnosis: Newborn Screening (cont'd)</u>	In house documented methods incorporating manufacturers' instructions where relevant
Dried Blood Spot	Phenylalanine and Tyrosine	Waters TQD Tandem Mass Spectrometry: SOP 153141/ SOP 153142
Dried Blood Spot	Leucine	SOP 153141
Dried Blood Spot	Methionine	SOP 153141
Dried Blood Spot	Octanoylcarnitine	SOP 153141
Dried Blood Spot	Decanoylcarnitine	SOP 153141
Dried Blood Spot	Isovalerylcarnitine	SOP 153141
Dried Blood Spot	Glutarylcarnitine	SOP 153141
Dried Blood Spot	Acylcarnitine Profile (Full Scan)	SOP 153143
Dried Blood Spot	C8/C10 Ratio	Calculated from octanoylcarnitine and decanoylcarnitine. Waters TQD Tandem Mass Spectrometry. LIMS (Specimen Gate) SOP 153141 and 153301
END		