


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

 <p>Accredited to ISO 15189:2012</p>	<h3>Sheffield Children's NHS Foundation Trust</h3> <p>Issue No: 003 Issue date: 29 December 2019</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>Biochemistry examination activities for the purpose of clinical diagnosis:</u> <u>Metabolic biochemistry</u>	In house documented methods incorporating manufacturers' instructions where relevant
Blood, Urine, CSF, Dried Blood Spot	Quantitative Amino Acids	Biochrom 30 analysers using ion exchange chromatography SOP 123022 Waters TQD Tandem Mass Spectrometer:
Blood, Bile, Dried Blood Spot	Acylcarnitines	SOP 127003
Blood, Urine	Carnitine	SOP 127003
Blood, Urine	Bile salts: Glycodihydroxycholanoate Glycotrihydroxycholanoate Taurodihydroxycholanoate Taurotrihydroxycholanoate	SOP 127301
Urine	Hexanoylglycine	SOP 127304
Urine	Isovaleryl Glycine	SOP 127305
Urine	Sulphocysteine	SOP 127005
Blood	Biotinidase	Horiba Pentra using enzymatic assay with coloured product SOP 130005
Urine	Qualitative Amino Acids	Manual Thin Layer Chromatography SOP 122001



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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)	Schimadzu GCMS (2010): 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	Schimadzu GCMS (Q2020) using SOP 124315
Blood	Sterols-Cholestanol, 7- Dehydrocholesterol, 8- Dehydrocholesterol, Cholesterol	Agilent GCMS: SOP 124313
Blood	Phytosterols- Sitosterol, Campesterol, Stigmasterol	SOP 124310
Blood, Urine, CSF	Pipecolic Acid	SOP 124311
Blood	Plasmalogens	SOP 124312
Urine	Dimethylglycine	SOP 124304
Urine	Galactitol	SOP 124317



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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
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 Scie-Plas Ltd electrophoresis tanks CA-SYS Consort E143 power pack Consort EV22 power pack and SOP 122009



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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 ₂ 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 ₂ 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 ₂ by Packard 1900CA Scintillation Counter SOP 142019
Fibroblasts	BCA Protein Assay	Horiba Pentra – Colourmetric assay SOP 142015



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HUMAN BODY FLUIDS (cont'd)	<u>Biochemistry examination activities for the purpose of clinical diagnosis: 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)	Immunorate assay
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



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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	Gamma Glutamyl Transferase (GGT)	Ortho-Clinical Diagnostics, Vitros 5600 using SOP 113143: Enzymatic assay
Blood	Gentamicin	Immunorate assay
Blood, Urine, CSF	Glucose	Colourmetric assay
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	Tobramicin	Immunorate assay
Blood	Triglycerides	Colourmetric assay



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Blood, Urine	Urea	Colourmetric assay
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
		Ortho-Clinical Diagnostics, Vitros 5600 using SOP 113143:
Blood, Urine	Uric Acid	Colourmetric assay
Blood	Vancomycin	Immunorate assay
Blood	Caffeine	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
		Abbot Architect i1000: Chemiluminescent Microparticle Immunoassay:
Blood	Vitamin B12	SOP 114016
Blood	Cortisol	SOP 114010
Blood	Cyclosporin	SOP 114011
Blood	Ferritin	SOP 114016
Blood	FK506 (Tacrolimus)	SOP 114013
Blood	Folate	SOP 114016
Blood	Free Thyroxine (FT4)	SOP 114015
Blood	Methotrexate	SOP 114001
Blood	Parathyroid Hormone (PTH)	SOP 114012



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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
Blood	Thyroid Stimulating Hormone (TSH)	Abbot Architect i1000: Chemiluminescent Microparticle Immunoassay: SOP 114015
Blood, Urine	Osmolality	Advanced Instruments 3320 Osmometer – 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
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



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Dried Blood Spot	Decanoylcarnitine	SOP 153141
Dried Blood Spot	Isovalerylcarnitine	SOP 153141
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	Glutarylcarnitine	Waters TQD Tandem Mass Spectrometry: 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
Dried Blood Spot	Haemoglobin Profile (HbA, HbF, HbC, HbS)	Biorad HPLC SOP 152141
Dried Blood Spot	Galactose	Thin Layer Chromatography SOP 153203
END		