Schedule of Accreditation

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Mersey and West Lancashire Teaching Hospitals NHS Trust

Issue No: 012 **Issue date:** 10 July 2026

Pathology Directorate
Nightingale House
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Warrington Road
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L35 5DR

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Testing performed by the Organisation at the locations specified below

Locations covered by the organisation and their relevant activities

Location details		Activity	Location code
Address Whiston Hospital Nightingale House Warrington Road Prescot L35 5DR	**Local contact** Janine Pennington +44 (0) 151 430 2372	Routine diagnostic service for Histopathology Non-Gynae cytology Out of hours on call service for urgent frozen sections / diagnosis **Mortuary services** Storage of bodies Viewing facilities Record keeping (body identification and audit trail)	Whiston
Address Southport Hospital Town Lane Kew Southport PR8 6PN	**Local contact** Janine Pennington Tel: +44 (0) 151 430 2372 **Mortuary** +44 (0) 1704 704 014	Histopathology & Cytopathology reporting **Mortuary services** Storage of bodies Viewing facilities Record keeping (body identification and audit trail)	Southport

Additional site activity performed away from the laboratory

Location details		Activity	Location code
Address Whiston Hospital Nightingale House Warrington Road Prescot L35 5DR	**Local contact** Janine Pennington Tel: +44 (0) 151 430 2372	**FNA Clinic** Rapid on site assessment of FNA samples	Whiston
Address Ormskirk District General Hospital Wigan Road Ormskirk Lancashire L39 2AZ	**Local contact** Janine Pennington Tel: +44 (0) 151 430 2372 **Mortuary** +44 (0) 1704 704 014	**FNA clinic** Rapid on site assessment of FNA samples **Mortuary services** Storage of bodies Viewing facilities Record keeping (body identification and audit trail)	Ormskirk
Address St Helens Hospital Marshalls Cross Road St Helens WA9 3DA	**Local contact** Janine Pennington Tel: +44 (0) 151 430 2372	**Skin Outpatients** Mohs frozen section service	St Helens
Haematology Department Mersey and West Lancashire Teaching Hospitals NHS Trust Whiston Hospital Warrington Road Prescot L35 5DR	**Local contact** Judith Raine Tel: +44 (0) 151 676 5673	Haematology Haemoglobinopathies Special Coagulation Blood Transfusion Management of blood fridges Phlebotomy	Whiston
Haematology Department Southport Hospital Town Lane Kew PR8 6PN	**Local contact** Judith Raine Tel: +44 (0) 151 676 5673	Haematology Routine Coagulation Blood Transfusion Management of blood fridges Phlebotomy	Southport
Haematology Department Ormskirk District General Hospital Wigan Road Ormskirk L39 2AZ	**Local contact** Judith Raine Tel: +44 (0) 151 676 5673	Haematology Management of blood fridges Phlebotomy	Ormskirk

Location details		Activity	Location code
Address Haematology Department St Helens Hospital St Helens WA9 3DA	**Local contact** Judith Raine Tel: +44 (0) 151 676 5673	Haematology Routine Coagulation Management of blood fridges Phlebotomy	St Helens
Emergency Department Whiston Hospital	**Local contact** Judith Raine Tel: +44 (0) 151 676 5673	Blood issue fridge No testing occurs on this site, blood storage only	Whiston
Haematology ward Whiston Hospital	**Local contact** Judith Raine Tel: +44 (0) 151 676 5673	Blood issue fridge No testing occurs on this site, blood storage only	Whiston
Delivery Suite Whiston Hospital	**Local contact** Judith Raine Tel: +44 (0) 151 676 5673	Blood issue fridge No testing occurs on this site, blood storage only	Whiston
4A Whiston Hospital	**Local contact** Judith Raine Tel: +44 (0) 151 676 5673	Blood issue fridge No testing occurs on this site, blood storage only	Whiston
Elyn Lodge St Helens Hospital	**Local contact** Judith Raine Tel: +44 (0) 151 676 5673	Blood issue fridge No testing occurs on this site, blood storage only	St Helens
Lilac Centre St Helens Hospital	**Local contact** Judith Raine Tel: +44 (0) 151 676 5673	Blood issue fridge No testing occurs on this site, blood storage only	St Helens
Fairfield Hospital	**Local contact** Judith Raine Tel: +44 (0) 151 676 5673	Blood issue fridge No testing occurs on this site, blood storage only	Fairfield Hospital
Theatre Ormskirk Hospital	**Local contact** Judith Raine Tel: +44 (0) 151 676 5673	Blood issue fridge No testing occurs on this site, blood storage only	Ormskirk

Location details		Activity	Location code
Address Biochemistry Department Mersey and West Lancashire Teaching Hospitals NHS Trust Whiston Hospital Warrington Road Prescot L35 5DR	**Local contact** Lesley Mather Tel: +44 (0) 151 430 1886	Biochemistry – automated and manual Immunology	Whiston
Biochemistry Department Southport Hospital Town Lane Kew PR8 6PN	**Local contact** Lesley Mather Tel: +44 (0) 151 430 1886	Biochemistry – automated and manual	Southport
Microbiology Department Whiston Hospital Warrington Road Prescot L35 5DR	**Local contact:** Diane Martin Baez Tel: +44 (0) 151 290 4140	Bacteriology Virology Serology Molecular Diagnostics Andrology	Whiston
Microbiology Department Southport and Formby District General Hospital Town Lane Kew Southport Merseyside PR8 6PN	**Local contact:** Diane Martin Baez Tel: +44 (0) 151 290 4140	Virology	Southport

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY TISSUE AND FLUIDS	Examination activities in order to identify or exclude morphological and cytological abnormalities for the purpose of diagnosis Diagnostic Non Gynae Cytopathology	Macroscopic and Microscopic examination: Documented in house methods incorporating manufacturers' instructions where relevant:	
Aspirates Bronchial lavage Cerebrospinal fluid Fluid samples Fine needle aspirates Urine EBUS Bronchial Brushings Bronchoalveolar lavarge Ascitic fluid Peritoneal fluid Pleural fluid Cyst Fluid Bile duct brushings	Morphological assessment and interpretation/diagnosis	Documented in house methods incorporating manufacturers' instructions where relevant: Harrier 15/80 Centrifuge Thermo Scientific Cytospin 4 Stuart SA7 Vortex mixer Manual Papanicolaou stain Manual May Grunwald Giemsa (MGG) SOP NGC 10, NGC34 NGC35, NGC22	Whiston
Slides prepared in house from above	Morphological assessment and interpretation/diagnosis	Microscopy (qualitative analysis) In-house procedures: SOPs SC2 / SC10 / MED 1.3 Using Nikon Eclipse E400 or Olympus BX45 Microscopes	Whiston Southport

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY TISSUE AND FLUIDS (cont'd)	Examination activities in order to identify or exclude morphological and cytological abnormalities for the purpose of diagnosis (cont'd)	Macroscopic and Microscopic examination: Documented in house methods incorporating manufacturers' instructions where relevant:	
Slides prepared from FNA material	Adequacy of sample by rapid on site assessment	Manual Staining and Microscopy using in-house procedures: Papanicolaou stain May Grunwald Giemsa (MGG) SOP NGC 10,NGC34 NGC35, NGC22 SOPs SC2 / SC10 / MED 1.3 Using Nikon Eclipse E400 or Olympus BX45 Microscopes	Whiston Ormskirk
Prepared slides of Synovial fluid specimens (from Microbiology)	Morphological assessment and interpretation/diagnosis	Microscopy (qualitative analysis) In-house procedures: SOPs SC2 / SC10 / MED 1.3 Using Nikon Eclipse E400 or Olympus BX45 Microscopes	Whiston
Tissues / organs	Histopathology	Macroanalysis, dissection & decalcification following: SOPs 1.0 / 1.10 / 1.10.2 / 1.1.1	Whiston
		Processing following: SOPs 10.2 / 10.1 Thermo Excelsior AS Processor Sakura X120 tissue processor Tissue Tek Sakura VIP6 tissue processor ID:79522 VIP6 SOP	Whiston
As above and cell blocks		Embedding following: SOP 2.2 Thermo Histocentre paraffin embedding centre and Leica embedding station EG1160 Sakura A120 Automated embedder	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY TISSUE AND FLUIDS (cont'd)	Examination activities in order to identify or exclude morphological and cytological abnormalities for the purpose of diagnosis (cont'd)	Macroscopic and Microscopic examination: Documented in house methods incorporating manufacturers' instructions where relevant:	
Fresh tissue	Frozen section examination to identify or exclude morphological and cytological abnormalities for the purpose of diagnosis	Frozen section / Cryotomy following SOPs 8.2 / 8.3 Thermo Cryostar NX70 Thermo Cryotome SME H&E staining using Linistat staining platform	Whiston
Formalin Fixed Paraffin Embedded (FFPE) wax blocks of processed tissue.		Microtomy using ID:8938 – 3.3 Epredia and Thermo Scientific microtomes	Whiston
Skin	Frozen section examination to identify or exclude morphological and cytological abnormalities for the purpose of diagnosis	Mohs service SOP 8.7 / 8.2.1 NX50 Cryostat H&E staining using Linistat staining platform Nikon Eclipse CI L Teaching microscope	St Helens
Fresh tissue sections mounted on glass slides	Detection of the following antibodies IgG IgA IgM C3	Direct Immunofluorescence (manual) using the following fluorescently labelled antibodies SOPs I 01 / I 02 IgG IgA IgM C3	Whiston
FFPE tissue mounted on glass slides prepared in house	Identification of basophilic and eosinophilic structures	Automated Haematoxylin and Eosin Staining using Roche HE600 staining machine SOP 4.2	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY TISSUE AND FLUIDS (cont'd)	Histopathological examination activities for the purposes of clinical diagnosis	Manual Special Staining using documented in house methods SOPs S1-S40	Whiston
FFPE tissue mounted on glass slides prepared in house	Acid and neutral mucins	ABPAS SOP S22	
	Collagen, muscle	Van Geison SOP S17	
	Fungi	Grocott Hexamine Silver SOP S15	
	Copper Associated Protein/Hepatitis B	Shikata's Orcein SOP S10	
	Connective tissue/elastin fibres, collagen, muscle	Elastic van gieson SOP S17	
	Gram positive and negative bacteria	Grams stain SOP S12	
	Tubercle bacilli (AFB)	Ziehl Neelsen SOP S13	
	Metachromatic substances, mast cells	Toluidine Blue SOP S34	
	Elastic fibres Copper- associated protein	Victoria Blue SOP S41	
FFPE tissue mounted on glass slides prepared in house		Automated special staining using Ventana Benchmark Special Stains	Whiston
	Mucins, glycogen, fungus and diastase resistance mucin	PAS+/- Diastase	
	Iron (ferric), haemosiderin pigment	Perls Prussian Blue	
	Reticulin fibers Amyloid	Gordon and Sweets Reticulin Congo Red	
	Muscle, Fibrin, Collagen	Massons Trichrome	

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY TISSUE AND FLUIDS (cont'd) Unstained sections from FFPE tissue and cell blocks prepared in-house (Ultra) ** Ultra only Unstained sections from FFPE tissue (Ultra Plus)	<u>Immunohistochemical examination activities for the purposes of clinical diagnosis</u>	Automated Immunohistochemical staining (IHC and ISH) following: SOPs I03 / I04 / Appx 4a Roche Ventana Benchmark Ultra/ Roche Ventana Benchmark Ultra Plus immuno platform, polymer refine detection kit,using the following monoclonal, polyclonal and cocktail antibodies:	Whiston
	Epithelial marker, cytokeratin 50-67 kDa	34BE12	
	Epithelial marker, Cytokertain 40 to 70 kD	AE1/3	
	Primary liver tumours/yolk sac tumours, Glycoprotein 70 kD	AFP	
	Transmembrane receptor tyrosine kinase 200 kD Anaplastic lymphomas and inflammatory myofibroblastic tumours	ALK1	
	Proto-oncogene 92-98 kD Marker for apoptosis	BCL-2	
	Germinal centres in follicular lymphoma, diffuse large B cell lymphoma and Reed-Sternberg cells	BCL-6	
	Polypeptides 34 & 39 kD Epithelial marker	BER-EP4	
	Function in cell adhesion and Wnt signaling. Used in the differential diagnosis of breast carcinomas as well as deep penetrating nevi	Betacatenin	
	High Molecular weight glycoprotein of the mucin family 1519 kDa	CA 125	
	Marker of smooth muscle	CALDESMON	

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY TISSUE AND FLUIDS (cont'd) Unstained sections from FFPE tissue and cell blocks prepared in-house (Ultra) ** Ultra only Unstained sections from FFPE tissue (Ultra Plus)	<u>Immunohistochemical examination activities for the purposes of clinical diagnosis</u> (cont'd)	Automated Immunohistochemical staining (IHC and ISH) following: SOPs I03 / I04 / Appx 4a Roche Ventana Benchmark Ultra/ Roche Ventana Benchmark Ultra Plusimmuno platform, polymer refine detection kit,using the following monoclonal, polyclonal and cocktail antibodies:	Whiston
	Calcium binding protein 32 kD Marker for mesothelioma	CALRETININ	
	Clear cell carcinoma- renal	Carbonic anhydrase	
	CD3 complex of T cell lineage 20-28 kDa	CD3	
	Transmembrane glycoprotein 59 kD T cells	CD4	
	Transmembrane glycoprotein 67 kD Mature T-cells and T-cell lymphomas	CD5	
	Heterodimeric, transmembrane glycoprotein of T cell lineage 34 kDa	CD8	
	Common acute lymphoblastic leukemia antigen 85kD Lymphoid/endometrial malignancies	CD10	
	Glycolipids & glycoproteins 220kD Hogkins lymphoma	CD15	
	Transmembrane non-glycosylated protein 33 kD B lymphocytes	CD20	
	Transmembrane glycoprotein 47kD B lymphocytes, some T-cells	CD23	

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY TISSUE AND FLUIDS (cont'd) Unstained sections from FFPE tissue and cell blocks prepared in-house (Ultra) ** Ultra only Unstained sections from FFPE tissue (Ultra Plus)	<u>Immunohistochemical examination activities for the purposes of clinical diagnosis</u> (cont'd)	Automated Immunohistochemical staining (IHC and ISH) following: SOPs I03 / I04 / Appx 4a Roche Ventana Benchmark Ultra/ Roche Ventana Benchmark Ultra Plus immuno platform, polymer refine detection kit,using the following monoclonal, polyclonal and cocktail antibodies:	Whiston
	Transmembrane cytokine receptor 120 kD Hogkins lymphoma	CD30	
	Transmembrane protein 135 kD Endothelial marker	CD31	
	Transmembrane protein 116 kD Vascular and lymphatic tumours	CD34	
	Transmembrane glycoprotein 59 kD T cells and myeloid lineage cells	CD43	
	Homophilic binding glycoprotein 140 kD Marker of nerve/neuroendocrine tumours	CD56	
	Lysosomal glycoprotein 110 kD Histiocytes/macrophages	CD68	
	Glycoprotein 40-45 kD B lymphocytes	CD79a	
	Transmembrane tyrosine kinase 145 kD Gastrointestinal stromal tumour marker	CD117	
	Transmembrane proteoglycan 30.5 kD Plasma cells, multiple myeloma	CD138	
	Transcription factor 34 kD GI tract tumours	CDX2	

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY TISSUE AND FLUIDS (cont'd) Unstained sections from FFPE tissue and cell blocks prepared in-house (Ultra) ** Ultra only Unstained sections from FFPE tissue (Ultra Plus)	<u>Immunohistochemical examination activities for the purposes of clinical diagnosis</u> (cont'd)	Automated Immunohistochemical staining (IHC and ISH) following: SOPs I03 / I04 / Appx 4a Roche Ventana Benchmark Ultra/ Roche Ventana Benchmark Ultra Plus immuno platform, polymer refine detection kit,using the following monoclonal, polyclonal and cocktail antibodies:	Whiston
	Carcinoembryonic Antigen glycoprotein 18 kD Epithelial marker	CEA	
	Protein prohormone 48 kD Neuroendocrine cells	CHROMOGRANIN	
	Type Cytokeratin 50 kDa	CK1	
	Cytokeratin 5 – 58 kD & cytokeratin 6 – 56 kD Epithelial marker	CK5/6	
	Cytokeratin 7 - 54 kD Epithelial marker	CK7	
	Cytokeratin 20 - 46 kD Epithelial marker	CK20	
	Glycoprotein B 112 kDa	CMV	
	Proto-oncogene 36 kD Mantle cell lymphomas	CYCLIN D1	
	Transmembrane siaglycoprotein Podoplanin 38 kD Lymphatic vessels	D2-40	
	Identification of HER-2 gene & chromosome 17 Determination of Her2 gene status	DDISH	
	Class III intermediate filament 53 kD Pan muscle marker	DESMIN	

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HUMAN BODY TISSUE AND FLUIDS (cont'd) Unstained sections from FFPE tissue and cell blocks prepared in-house (Ultra) ** Ultra only Unstained sections from FFPE tissue (Ultra Plus)	<u>Immunohistochemical examination activities for the purposes of clinical diagnosis</u> (cont'd)	Automated Immunohistochemical staining (IHC and ISH) following: SOPs I03 / I04 / Appx 4a Roche Ventana Benchmark Ultra/ Roche Ventana Benchmark Ultra Plusimmuno platform, polymer refine detection kit,using the following monoclonal, polyclonal and cocktail antibodies:	Whiston
	Transmembrane cell adhesion molecule 120 kD Cell adhesion molecule	E-CAD	
	Epithelial membrane antigen 150 kD Epithelial marker	EMA	
	Estrogen receptor alpha protein 66 kD Estrogen receptor/ prognostic breast marker	ER	
	Factor 8 protein of Von Willibrand Factor 293 kD VW factor in endothelial cells	Factor VIII	
	Dendritic cells	Factor XIII	
	Zinc finger transcription factor 48 kD Breast and urothelial carcinoma	GATA-3	
	Secretory glycoprotein 15 kD Breast carcinoma and mestastic tumours	GCDFP-15	
	Membrane proteoglycan, 60-70 kDa. Marker for the identification of hepatocellular carcinoma	Glypican 3	
	2 subunit glycoprotein (α & β) 40 kD hCG containing cells and cells with trophoblastic elements	HCG	

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HUMAN BODY TISSUE AND FLUIDS (cont'd) Unstained sections from FFPE tissue and cell blocks prepared in-house (Ultra) ** Ultra only Unstained sections from FFPE tissue (Ultra Plus)	<u>Immunohistochemical examination activities for the purposes of clinical diagnosis</u> (cont'd)	Automated Immunohistochemical staining (IHC and ISH) following: SOPs I03 / I04 / Appx 4a Roche Ventana Benchmark Ultra/ Roche Ventana Benchmark Ultra Plusimmuno platform, polymer refine detection kit,using the following monoclonal, polyclonal and cocktail antibodies:	Whiston
	Marker for H pylori Gram negative rod bacteria	Helicobacter	
	Mitochondrial membrane protein. Marker for hepatocellular tumours	HEP-PAR1	
	c-erbB-2 oncoprotein 185 kD Marker of Her2 amplification in breast tumours	HER 2	
	Glycoprotein 150 kD Melanoma marker	HMB45	
		Inhibin	
	Nuclear protein 345-395 kD Proliferation marker	KI67	
	Kappa	Kappa	
	Lambda	Lambda	
	Transmembrane glycoprotein 180 000 -220 000 Leucocytes	LCA	
	Transmembrane protein 20-22 kD Melanoma marker	MELAN-A and red detection kit	
	Cytokeratin 40-58 kD Epithelial marker	MNF 116	
	Mismatch repair (MMR panel)	MLH-1	
	Mismatch repair (MMR panel)	MSH-2	
	Mismatch repair (MMR panel)	MSH-6	

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HUMAN BODY TISSUE AND FLUIDS (cont'd) Unstained sections from FFPE tissue and cell blocks prepared in-house (Ultra) ** Ultra only Unstained sections from FFPE tissue (Ultra Plus)	<u>Immunohistochemical examination activities for the purposes of clinical diagnosis</u> (cont'd)	Automated Immunohistochemical staining (IHC and ISH) following: SOPs I03 / I04 / Appx 4a Roche Ventana Benchmark Ultra/ Roche Ventana Benchmark Ultra Plus immuno platform, polymer refine detection kit,using the following monoclonal, polyclonal and cocktail antibodies:	Whiston
	Myeloma associated oncogene 50 kD Multiple myeloma oncogene-1	MUM1	
	Heme peroxidase 150 kD Neutrophil granulocytes, monocytes	Myeloperoxidase	
	Homeobox protein. Specific marker for prostate adenocarcinoma	NKX3.1	
	Transcription factor - Mantle cell, diffuse large cell, marginal zone and classic Hodgkin's lymphoma marker	OCT 2**	
	OCT 3 protein 52 kD OCT 4 protein 45 kD Pluripotent germ cell tumours	OCT 3-4	
	Cyclin-dependent kinase inhibitor 150 kD Marker of CIN	P16	
	Squamous cell carcinoma	P40	
	Tumour suppressor protein 53 kD Carcinomas: many neoplasms and normal cells	P53	
	Transcription factor 44-77 kD Marker in breast/prostate tumours	p63	
	Cancer testis antigen used in diagnosis of mailgnant melanomas	PRAME	

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HUMAN BODY TISSUE AND FLUIDS (cont'd) Unstained sections from FFPE tissue and cell blocks prepared in-house (Ultra) ** Ultra only Unstained sections from FFPE tissue (Ultra Plus)	Immunohistochemical examination activities for the purposes of clinical diagnosis (cont'd)	Automated Immunohistochemical staining (IHC and ISH) following: SOPs I03 / I04 / Appx 4a Roche Ventana Benchmark Ultra/ Roche Ventana Benchmark Ultra Plus immuno platform, polymer refine detection kit,using the following monoclonal, polyclonal and cocktail antibodies:	Whiston
	B cell specific activator protein 150 kD Pre-B cells	PAX 5	
	Transcription factor 48 kDa	PAX 8	
	Mismatch repair (MMR panel)	PMS2	
	Progesterone receptor A & B 60 110 Kd Prognostic breast marker	PR	
	Prostate specific antigen 33 kD Marker of normal/malignant prostate	PSA	
	Prostatic acid phosphatase 58 kD Marker of normal/malignant prostate	PSAP	
	Alpha-methylacyl-CoA racemase 54 kD HGPIN, prostate adenocarcinoma	RACEMASE (AMACR)	
	Ca binding protein 11 kD Nerve sheath, neural marker	S100	
	Cytoplasmic microfilaments, 42 kDa. Discriminator of smooth muscle cell differentiation.	SMA	
	MHC-1 205 kD & MHC-2 200 kD Smooth muscle marker	SMM	

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HUMAN BODY TISSUE AND FLUIDS (cont'd) Unstained sections from FFPE tissue and cell blocks prepared in-house (Ultra) ** Ultra only Unstained sections from FFPE tissue (Ultra Plus)	<u>Immunohistochemical examination activities for the purposes of clinical diagnosis</u> (cont'd)	Automated Immunohistochemical staining (IHC and ISH) following: SOPs I03 / I04 / Appx 4a Roche Ventana Benchmark Ultra/ Roche Ventana Benchmark Ultra Plus immuno platform, polymer refine detection kit,using the following monoclonal, polyclonal and cocktail antibodies:	Whiston
	Nuclear transcription factor 56 kD Marker for malignant melanoma and schwannoma	SOX10	
	Membrane glycoprotein 34 kD Marker of neural cells/neuroendocrine tumors	Synaptophysin	
	Transcription factor 40 kD Marker of normal throid/lung tumours	TTF-1	
	Intermediate filament protein 57 kD Mesenchymal tumours	Vimentin	
	Zinc finger transcription factor 46-49 kD Wilms tumour/mesothelioma	WT-1	
Slides prepared in house as above	Morphological assessment and interpretation / diagnosis	Interpretive / diagnostic microscopy (qualitative analysis) In-house procedures: SOPs SC2 / SC10 / MED 1.3 Using Nikon Eclipse E400 or Olympus BX45 Microscopes	Whiston Southport
Digital images from slides prepared in house as above	Morphological assessment and interpretation / diagnosis	Using Philips Digital Pathology solution Slide Scanning Slide Reporting	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS	Haematology examination for the purposes of clinical diagnosis:	Documented in house methods and manufacturer's instructions for:	
Whole blood	Full Blood Count Haemoglobin White Blood Cell count Red blood cell count Platelet count Haematocrit Mean Cell Volume Mean Cell Haemoglobin Mean Cell Haemoglobin concentration Red Cell Distribution width Neutrophil count Lymphocyte count Monocyte count Eosinophil count Basophil count Nucleated Red Cell count	Sysmex XN9100 by flow cytometry, impedance and Spectrophotometry SOP 2 XN Running FBC Samples Sysmex XN2000 SOP 2 XN Running FBC Samples Sysmex XN1000 SOP 2 XN Running FBC Samples Sysmex XN1000 SOP 2 XN Running FBC Samples	Whiston Southport Ormskirk St Helens
Whole blood	Reticulocyte count	Sysmex XN9100 ID: 15821	Whiston Southport Ormskirk
Whole blood	Erythrocyte Sedimentation Rate (ESR)	Automated Sysmex Interliner and Auto Compact Westergren method ID: 2286	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Haematology examination for the purposes of clinical diagnosis:	Documented in house methods and manufacturer's instructions for:	
Whole blood, bone marrow	Detection of normal and abnormal morphologies	Blood film examination using Giemsa and May Grunwald (MG) staining and light microscopy	
		Automated Staining using Sysmex SP50 and RAL stainer	Whiston
		Automated staining using RAL stainer	Southport
		SOP 22 Bone marrow aspiration, slide prep and procedure	
		Microscopy SOP Haematology Bone marrow review and reporting	Whiston
		SOP 13 Blood film examination	Whiston Southport
Slide of whole blood	Identification of: White blood cells Platelets	Digital Morphology DI-60	Whiston
Slide of whole blood	Identification of: White blood cells Platelets	Digital Morphology DC1	Whiston Southport
Whole blood	WBC differential	Manual examination light microscopy SOP 13 Blood film examination	Whiston Southport
Whole blood	Detection of infectious mononucleosis heterophile antibodies (Glandular fever)	Clearview® IM II test antigen/antibody test SOP: Glandular fever screening test	Whiston Southport

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Haematology examination for the purposes of clinical diagnosis:	Documented in house methods and manufacturer's instructions for:	
Whole blood	Malarial parasite screen by detection of antigens • *P. falciparum* • *P. vivax* • *P. ovale* *P. malariae*	CareUS Malaria Rapydtest kit Immunochromatographic rapid test SOP: Screening for Malarial parasites	Whiston Southport
Whole blood	Detection and Identification of Plasmodium species: • *P. falciparum* • *P. vivax* • *P. ovale* • *P. malariae* *P. knowlesi*	Thick and thin films and microscopy Stains – Field's stain (Atom Scientific) and Giemsa SOP: Screening for Malarial parasites Documented in-house methods to meet the requirements of the Sickle Cell and Thalassemia screening programme(s) as defined in the 'NHS Sickle Cell and thalassemia screening: Laboratory QA evidence requirements	Whiston
Whole blood	Sickle cell screen	Strek Sickledex Solubility test SOP: Sickle Cell screening test	Whiston
Whole blood	Haemaglobinopathy screen (sickle cell and Thalassaemia / antenatal) • HbA2 • HbF • HbA • HbS • HbD • HbC • HbE • Hb Dpunjab • Hb Oarab • Hb Lepore	Sebia Capillarys 3 tera using capillary electrophoresis SOP ID58024 Haemoglobinopathy screening on the sebia capillarys 3 SOP ID58025 Sebia Phoresis SOP ID58026 Haemoglobinopathies and Thalassemias: Description, pathophysiology and diagnosis	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Haematology examination for the purposes of clinical diagnosis:	Documented in house methods and manufacturer's instructions for:	
Whole blood	Haemaglobinopathy identification and quantitation of • HbA2 • HbF • HbA • HbS • HbD • HbC • Variant Hb	Sebia Hydrasys 2 system acid alkali electrophoresis SOP Acid haemoglobin electrophoresis SOP Alkaline haemoglobin electrophoresis SOP 56 Antenatal sickle cell haemoglobinopathy screening SOP 44 Haemoglobinopathy screening on Tosoh G8	Whiston
Plasma	Prothrombin time / INR APTT FS (Lupus insensitive) APTT FSL (Lupus sensitive) Fibrinogen	Sysmex CN6000 and CN6500 Light Transmittance – clotting assays SOP: Prothrombin Time SOP 11: Activated Partial Thromboplastin Time SOP 13: Clauss Fibrinogen Assay SOP 42: APTT using Actin FSL SOP 46: PT mixing studies SOP45: APTT mixing studies	Whiston
Plasma	PT / INR, APTT, Fibrinogen,	Sysmex CN3000 SOP 12: Prothrombin time SOP 11: APTT FS SOP 13: Clauss Fibrinogen	Southport
Plasma	PT/ INR, APTT	Sysmex CN3000 SOP 4: Prothrombin Time SOP 5: Activated Partial Thromboplastin Time	St Helens
Plasma	D-dimer	Sysmex CN6000 and CN6500 Immunoassay SOP 50 - D-dimer	Whiston
Plasma	D-Dimer	Sysmex CN3000 Immunoturbidometric SOP 15: D-Dimer	Southport

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Haematology examination for the purposes of clinical diagnosis:	Documented in house methods and manufacturer's instructions for:	
Plasma	Thrombin time	Sysmex CN6000 and CN5600 Light Transmittance SOP 14 - Thrombin Time	Whiston
Plasma	Detection of • FII • FV • FVII • FVIII • FIX • FX • FXI • FXII	Sysmex CN6000 and CN6500 Light transmittance SOP 26 - Intrinsic factor assays SOP 25 - Extrinsic factor assays	Whiston
Plasma	Detection of • Anti-Xa (LMWH) • Direct oral anti-coagulants	Sysmex CN6000 and CN6500 Chromogenic assays SOP 19: LMWH determination SOP 27: DOAC assays	Whiston
Plasma	Platelet function aggregation (PFA)	PFA-100 Platelet aggregation SOP: Platelet Function Screening PFA 100	Whiston
Whole blood	Detection of Factor V Leiden and Prothrombin gene mutation	Cepheid Gene Expert PCR SOP: Factor II and Factor V gene mutation	Whiston
Plasma	Detection of • IgG and IgM for Anti-cardiolipin antibodies • IgG for Beta glycoprotein 1	Phadia 250 Immunoassay EliA fluorescence enzyme immunoassay SOP 19: ACA and B2GPI on the Phadia 250	Whiston
Plasma	Quantitation of: • Protein S • Protein C • Anti-thrombin	Sysmex CN6000 and CN6500 chromogenic immunoassay SOP 34 Free Protein S SOP 12 Anti-thrombin Immunoturbidimetric SOP 15 Protein C	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Haematology examination for the purposes of clinical diagnosis:	Documented in house methods and manufacturer's instructions for:	
Plasma	Detection of: Lupus anticoagulant	Sysmex CN6000 and CN6500 SOP18: Lupus Coagulant	Whiston
Plasma	Detection of vWF antigen	Sysmex CN6000 and CN6500 SOP16 Von Willebrand antigen immunoassay	Whiston
	vWF activity	Sysmex CN6000 and CN6500 SOP 17 Immunoturbidometric assay	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
	<u>Blood Transfusion examination activities for the purposes of clinical diagnosis</u>	Documented in house methods and manufacturer's instructions for:	
Whole blood	Blood Grouping by antigen and antibody detection: • A B and O groups • RhD group	Automated using Grifols Erytra and Grifols Eflexis analysers using column agglutination SOP BT 047	Whiston
		Automated using Grifols Eflexis analysers using column agglutination SOP BT 047	Southport
		Manual method by Grifols gel cards using SOP BT 049	Whiston Southport
Whole blood	Antenatal prophylactic anti-D panel	Automated using Grifols Erytra and Grifols Eflexis analysers using column agglutination SOP BT 008	Whiston
		Automated using Grifols Eflexis analysers using column agglutination SOP BT 008	Southport
		Manual method by Grifols gel cards using BT 008	Whiston Southport
Whole blood	Infant Blood grouping Neonatal blood group + DAT • A B and O groups • RhD group	Automated using Grifols Erytra and Grifols Eflexis analysers using column agglutination SOP BT 047	Whiston
		Automated using Grifols Eflexis analysers using column agglutination SOP BT 047	Southport
		Manual method by Grifols gel cards using BT 049	Whiston Southport

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
	Blood Transfusion examination activities for the purposes of clinical diagnosis	Documented in house methods and manufacturer's instructions for:	
Whole blood	Detection of the following Antibodies: Rhesus blood group antibodies: anti-Cw, anti-C, anti-c, anti-D, anti-E, anti-e Kell system blood group antibodies: anti-K, anti-k, anti-Kpa Kidd blood group antibodies: anti-Jka, anti-Jkb Duffy blood group antibodies: anti-Fya, anti-Fyb Lutheran blood group antibodies: anti-Lua MNS blood group antibodies: anti-M, anti-N, anti-S, anti-s Lewis blood group antibodies: anti-Lea, anti-Leb P blood group antibodies: anti-P1	Automated using Grifols Erytra and Grifols Eflexis analysers using column agglutination SOP BT 008 SOP BT 047 Automated using Grifols Eflexis analysers using column agglutination SOP BT 008 SOP BT 047 Manual method by Grifols gel cards using SOP BT 008 SOP BT 047	Whiston Southport Whiston Southport
Red cells	Remote electronic issue	Haemonetics HB80 Remote Issue Fridge SOP BT 075 SOP BT 034	Ormskirk
Red cells	Remote allocation of compatible red cells for patients unsuitable for electronic issue, via concessionary release, in emergencies	Haemonetics HB80 Remote Issue Fridge SOP BT 075 SOP BT 034	Ormskirk

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Blood Transfusion examination activities for the purposes of clinical diagnosis (cont'd)	Documented in house methods and manufacturer's instructions for:	
Prophylactic Anti-D	Remote allocation of prophylactic Anti-D	Haemonetics HB80 Remote Issue Fridge SOP BT 075	Ormskirk
Blood and Blood components	Electronic blood tracking	BloodTrack Manager SOP BT 034 Use of BloodTrack	Whiston Ormskirk Southport
Whole blood	Red cell phenotyping for Antigens of the following systems: • Rh – C, D, E, c, e • Kell – K,	Automated using Grifols Erytra and Grifols Eflexis analysers using column agglutination SOP BT 008	Whiston
		Automated using Grifols Eflexis analysers using column agglutination SOP BT 008	Southport
	• Cw • Fya, Fyb • Kidd – Jka, Jkb • s	Manual method by Grifols gel cards using BT008	Whiston
Whole blood	Red cell phenotyping for Antigens of the following systems: • S • Kell – K, • M, N • Lea, Leb • P1	Manual tubes SOP BT 008	Whiston
Whole blood	Manual cross match	Manual using Grifols cards SOP BT 010	Whiston Southport
Whole blood	Automated cross match	Automated using Grifols Erytra and Grifols Eflexis analysers using column agglutination SOP BT 053	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Blood Transfusion examination activities for the purposes of clinical diagnosis (cont'd)	Documented in house methods and manufacturer's instructions for:	
		Automated using Grifols Eflexis analysers using column agglutination SOP BT 053	Southport
Whole blood	Direct Coombs Test (DCT)	Automated using Grifols Erytra and Grifols Eflexis analysers using column agglutination SOP BT 047	Whiston
		Automated using Grifols Eflexis analysers using column agglutination SOP BT 047	Southport
		Manual using Grifols cards SOP BT 049	Whiston Southport
Whole blood	Foetal/maternal haemorrhage screen	Guest Medical Kleihauer Testing Kit - Acid Elution SOP BT 11 Cord Sample, Kleihauer Testing and Anti-D Administration	Whiston Southport

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS	Biochemistry examination for the purposes of clinical diagnosis:	Documented in house methods and manufacturer's instructions for:	
Whole blood	HbA1c	Sebia Capillarys 3 Tera Capillary Electrophoresis	Whiston
Cerebrospinal fluid (CSF)	Xanthochromia (bilirubin)	Uvikon XS Spectrophotometer ID: 47734	Whiston
Sweat	Chloride	Jenway Chloride meter ID:139	Whiston
Serum, urine	Osmolality	Advanced Instruments Osmo1 Depression of Freezing point ID: 1661	Whiston Southport
Serum unless otherwise stated	Concentration of:	Siemens Atellica (Spectrophotometry) System ID 43976	
	Albumin	W:8979	Whiston Southport
	ALP	W:8980 ID:31258	Whiston Southport
	ALT	W:8981 ID: 48054	Whiston Southport
	Angiotensin ConvertingEnzyme (ACE)	W:64461 ID: 64461	Whiston Southport
	Amylase	W:4944 ID: 47928	Whiston Southport
	AST	W:9941 ID: 47920	Whiston Southport
	Bicarbonate	W:19366 ID:32090	Whiston Southport
	C3	W:9942	Whiston
	C4	W:9943	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Biochemistry examination for the purposes of clinical diagnosis (cont'd):	Documented in house methods and manufacturer's instructions for:	
Serum unless otherwise stated (cont'd)	Concentration of: (cont'd)	Siemens Atellica (Spectrophotometry) System ID 43976	
Serum, urine	Calcium	W:9185 ID:33090	Whiston Southport
	Carbamazepine	W:9602	Whiston
	Cholesterol	W:9955 ID:31259	Whiston Southport
	Creatinine Kinase	W:9945 ID:47982	Whiston Southport
Serum, urine	Chloride	W:9951 ID:47978	Whiston Southport
Serum, urine	Creatinine	W:8983 ID:47979	Whiston Southport
	CRP	W:8956 ID:31260	Whiston Southport
	Direct Bilirubin	W:8953 ID:31274	Whiston Southport
Serum, urine	Ethanol	W:9198 ID:48051	Whiston Southport
	GGT	W:9197 ID:32767	Whiston Southport
Plasma, CSF	Glucose	W:9947 ID:32091	Whiston Southport
	Haptoglobin	W:8954	Whiston
	HDL	W:9954 ID:31261	Whiston Southport

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Biochemistry examination for the purposes of clinical diagnosis (cont'd):	Documented in house methods and manufacturer's instructions for:	
Serum unless otherwise stated (cont'd)	Concentration of: (cont'd)	Siemens Atellica (Spectrophotometry) System ID 43976	
	IgA	W:9193	Whiston
	IgG	W:9194	Whiston
	IgM	W:9195	Whiston
Serum, urine	Potassium	W:9953 ID:47978	Whiston Southport
Plasma	Lactate	W:9948 ID:47980	Whiston Southport
	LDH	W:9191 ID:47924	Whiston Southport
	Lithium	W:8988	Whiston
	Magnesium	W:9949 ID:47918	Whiston Southport
Urine	Microalbumin	W9192	Whiston
Serum, urine	Sodium	W:9952 ID:47978	Whiston Southport
	Paracetamol	W:9196 ID:33099	Whiston Southport
	Phenytoin	W:9600	Whiston
Serum, urine	Phosphate	W:8955 ID:33100	Whiston Southport
	Procalcitonin	W:57126	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Biochemistry examination for the purposes of clinical diagnosis (cont'd):	Documented in house methods and manufacturer's instructions for:	
Serum unless otherwise stated (cont'd)	Concentration of: (cont'd)	Siemens Atellica (Spectrophotometry) System ID 43976	
	Salicylate	W:8991 ID:47926	Whiston Southport
	Total Bilirubin	W:9184 ID:31265	Whiston Southport
	Theophylline	W:9599	Whiston
Serum, urine, CSF	Total Protein	W:8989 ID:33101	Whiston Southport
	Transferrin	W:13022 ID:47927	Whiston Southport
	Triglycerides	W:20828 ID:47919	Whiston Southport
Serum, urine	Uric Acid	W:8990 ID:33103	Whiston Southport
Serum, urine	Urea	W:8982 ID:33102	Whiston Southport
	Valproate	W:9601	Whiston
	Zinc	W: 53224 ID: 53224	Whiston Southport
Plasma	Ammonia	W:23133 ID:48043	Whiston Southport
	Bile Acids	W:11549 ID:48041	Whiston Southport

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Biochemistry examination for the purposes of clinical diagnosis (cont'd):	Documented in house methods and manufacturer's instructions for:	
Serum unless otherwise stated (cont'd)	Concentration of: (cont'd)	Siemens Atellica (Spectrophotometry) System ID 43976	
	Iron	W:31277 ID:31277	Whiston Southport
Whole Blood	Mortuary Alcohol	W:11989	Whiston
	Gentamicin	W:44016 ID:44016	Whiston Southport
	Vancomycin	W:44017 ID:44017	Whiston Southport

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Biochemistry examination for the purposes of clinical diagnosis (cont'd):	Documented in house methods and manufacturer's instructions for:	
Serum unless otherwise stated (cont'd)		Siemens Atellica (Chemiluminescence) Immunoassay System ID 43976	
	Tumour Markers:		
	AFP	W:5637	Whiston
	CA125	W:5647	Whiston
	CEA	W:5540	Whiston
	PSA	W:5558	Whiston
	Ca19-9	W:43979	Whiston
	Vitamins:		
	Vitamin B12	W:5744 ID:5744	Whiston Southport
	Vitamin D	W:15456	Whiston
	Endocrine:		
	Cortisol	W:5740 ID:26938	Whiston Southport
	Oestradiol	W:5702	Whiston
	LH	W:5765	Whiston
	FSH	W:5764	Whiston
	FT3	W:5189 ID:5189	Whiston Southport
	FT4	W:5944 ID:5944	Whiston Southport

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Biochemistry examination for the purposes of clinical diagnosis (cont'd):	Documented in house methods and manufacturer's instructions for:	
Serum unless otherwise stated (cont'd)		Siemens Atellica (Chemiluminescence) Immunoassay System ID 43976	
	Endocrine (cont'd)		
	Prolactin and Macroprolactin (calculated test)	W:5707	Whiston
	Progesterone	W:5701	Whiston
	Thyroid Stimulating Hormone	W:5094 ID:5094	Whiston Southport
	PTH	W:5649	Whiston
	Testosterone	W:5714	Whiston
	SHBG	W:43982	Whiston
	Anti-TPO	W43980	Whiston
	Pregnancy and Tumour Marker:		
	hCG	W:5739 ID:5739	Whiston Southport

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Biochemistry examination for the purposes of clinical diagnosis (cont'd):	Documented in house methods and manufacturer's instructions for:	
Serum unless otherwise stated (cont'd)		Siemens Atellica (Chemiluminescence) Immunoassay System ID 43976	
	Cardiac Markers:		
	NT-proBNP	W:43981	Whiston
	Troponin I	W:5200 ID:5200	Whiston Southport
	Digoxin	W:5683 ID:5683	Whiston Southport
	Ferritin	W:5743 ID:5743	Whiston Southport
	Folate	W:5763 ID:5763	Whiston Southport
	Macroprolactin	Precipitation of macroprolactin W:26238, 942	Whiston
	Rheumatoid Factor (RF)	W: 55749	Whiston
	Anti-cyclic citrullinated peptide (CCP)	ID: 79348	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Biochemistry examination for the purposes of clinical diagnosis (cont'd):	Documented in house methods and manufacturer's instructions for:	
		Calculated Tests	
Serum	Adjusted Calcium	ID: 56489	Whiston Southport
Serum	Non-HDL Cholesterol	ID: 53091	Whiston Southport
Serum	LDL Cholesterol	ID: 53091	Whiston Southport
Serum	HDL/Cholesterol Ratio	ID: 53091	Whiston Southport
Serum	Anion Gap	ID: 53089	Whiston Southport
Serum	Total Iron Binding Capacity	ID: 18842	Whiston Southport
Serum	Iron % Saturation	ID: 18842	Whiston Southport
Serum	Free Androgen Index	ID: 53090	Whiston Southport
Serum	Globulins	ID: 54702	Whiston Southport
Urine	Albumin/Creatinine Ratio	ID: 53092	Whiston Southport
Urine	Protein/Creatinine Ratio	ID: 53092	Whiston Southport
Serum	AKI Warning Stage	ID: 54969	Whiston Southport
	Free testosterone	ID: 53090	Whiston
	Fibrosis (FIB-4) Score	ID: 49699	Whiston
	Kidney failure risk equation (KFRE)	ID: 80505	Whiston
	eGFR (calculated test)	W:2911 ID:54696	Whiston Southport
Serum	Kappa/Lambda Ratio	ID: 53219	Whiston
Faeces	Detection of faecal haemoglobin (FIT)	Eiken OC- Sensor Pledia Immunoturbidimetric analysis ID: 74044 ID: 45960	Whiston
Plasma	Plasma Placental Growth Factor	Quidel Triage Meter Pro Immunofluorescence ID: 51183	Whiston Southport

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Immunological examination for the purposes of clinical diagnosis:	Documented in house methods and manufacturer's instructions for:	
Serum	Detection of: CCP CTD MPO PR3 RAIGM GBM IgA ttg	Phadia ImmunoCap 250 Fluoroenzyme immunoassay ID:140 ID:19477 ID:20207	Whiston
Serum	 Paraprotein quantitation Paraprotein quantification	Sebia Capillarys 3 Serum protein electrophoresis Sebia Hydrasys 2 Scan Serum protein immunofixation ID: 268 ID: 2200 ID: 16042	Whiston
Urine	 Paraprotein quantitation	Sebia Hydrasys 2 Scan Urine protein immunofixation ID: 16043	Whiston
Serum	 HEP2 TAA ANCA	Manual Immunofluorescence / microscopy ID: 20354 ID: 20355 ID: 9798	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Immunological examination for the purposes of clinical diagnosis:	Documented in house methods and manufacturer's instructions for:	
Serum	ANCA Hep 2 Tissue Autoantibodies Endomysial Antibodies (IgA)	IF Microscope Olympus CX43RF with LED light source- Microscope Immunofluorescence ID 9798 ID 20354 ID 20355 ID 29617	Whiston
Serum	Free light chains	Siemens BNII system using nephelometry ID: 77232	Whiston
Serum	Total and Specific IgE House Dust Mite Parrot feathers Animal Panel Cat Canary Feathers Horse Dander Dog Budgerigar Feathers Guinea Pig Feather Mix Rabbit Hamster Egg white Sesame seed Peanut Soybean Hazelnut Brazil Nut Milk Almond Pecan Nut Cashew Nut Pistachio Nut Pineapple Shrimp Tomato Walnut Codfish Orange	Thermo Phadia 250 (Serial Number 10883) ImmunoCAP sandwich immunoassay ID: 2414	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Immunological examination for the purposes of clinical diagnosis:	Documented in house methods and manufacturer's instructions for:	
Serum	Total and Specific IgE (cont'd)	Thermo Phadia 250 (Serial Number 10883) ImmunoCAP sandwich immunoassay ID: 2414	Whiston
	Coconut Wheat Strawberry Apple Egg Yolk Gluten Cheddar Kiwi Fruit Melon Mango Banana Peach Food 1 (Nuts) Food 15 (Fruit) Food 5 (General) Food 21 (Fruit) Timothy Grass Latex A.fumigatus Mould Birch		
Serum	IgA TTG	Thermo Phadia 250 (Serial Number 10531) Fluoro Enzyme Immunoassay ID 19473	Whiston
	Connective Tissue Disease Screening	ID 19474	
	MPO	ID 19472	
	PR3	ID 19471	
	GBM	ID 26576	
Faeces	Faecal calprotectin	Thermo Phadia 250 (Serial Number 10883) Fluoro Enzyme Immunoassay ID 63886	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUES AND FLUIDS	Microbiological examination activities for the purpose of clinical diagnosis	In-house documented procedures following current UKHSA Standards for Microbiological Investigations (SMIs)	
Routine samples - tissues and biopsies, mortuary samples, fluids from normally sterile sites, corneal scrapings, contact lens	General isolation and characterisation of microorganisms of clinical significance	Microbiological investigation including microscopy, manual culture and plate reading ID 23787 Inoculation of culture media ID 16291 Urgent Gram processing	Whiston
Swabs (nasal, pernasal/nasopharyngeal, cough, throat, mouth, eye, ear, genital, wound, superficial wounds and skin, neonatal)	General isolation and characterisation of microorganisms of clinical significance	Microbiological investigation including microscopy (manual and automated staining) ProLab Polystainer, manual culture and plate reading 8489 Superficial and deep seated wound swab plating scheme ID 16725 Wounds Gram stain required ID 4042 Wound swabs, Skin superficial non-surgical abscesses and deep seated infections ID 2882 Genital tract and penile swabs plating scheme ID 7582 Genital tract and penile swabs bacteriology ID 16731 Genital bench Gram film reporting ID 9789 GUM bench duties	Whiston
Respiratory samples - tracheal aspirates pleural fluid, bronchoalveolar samples, nasopharyngeal aspirates,	General isolation and characterisation of microorganisms of clinical significance	Microbiological investigation including microscopy, manual culture and plate reading ID 2884 Respiratory tract plating scheme ID 1023 Routine Respiratory specimen bacteriology	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUES AND FLUIDS	Microbiological examination activities for the purpose of clinical diagnosis	In-house documented procedures following current UKHSA Standards for Microbiological Investigations (SMIs)	
Urine	General isolation and characterisation of microorganisms of clinical significance	Microbiological investigation including microscopy, manual culture and plate reading ID 694 Routine urine bacteriology Walkaway processing using Biomerieux WASP ID 66557 WASP SOP	Whiston
Ascitic fluids, synovial fluids, fluids from normally sterile sites	General isolation and characterisation of microorganisms of clinical significance	Microbiological investigation including microscopy, manual culture and plate reading ID19997 Quick guide Ascitic fluid neutrophil counts ID17945 Fluid processing	Whiston
Bone, orthopaedic artificial material, intravascular cannulae,	General isolation and characterisation of microorganisms of clinical significance	Microbiological investigation including microscopy, manual culture and plate reading ID 16475 Bone soft tissue fluids intravenous tips and orthopaedic metal work plating scheme ID 17948 Bone and tissue flow diagram ID16506 Bone, soft tissues, fluids, tips and artificial material	Whiston
CSF	General isolation and characterisation of microorganisms of clinical significance	Microbiological investigation including microscopy, manual culture and plate readingID1254 Routine CSF bacteriology	Whiston
Sputum	General isolation and characterisation of microorganisms of clinical significance	Microbiological investigation including microscopy, manual culture and plate reading ID 7061 Sputum plating scheme ID 17950 Sputum and BAL processing flow chart ID 1020 Routine Sputum bacteriology	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUES AND FLUIDS	Microbiological examination activities for the purpose of clinical diagnosis	In-house documented procedures following current UKHSA Standards for Microbiological Investigations (SMIs)	
Blood and joint fluids	Bacterial growth detection of pathogenic organisms	BacT/Alert blood culture system ID 23891 BacT/ALERT blood culture ID 18576 Positive blood culture sample processing ID 1253 Blood culture bacteriology	Whiston
Urine	Detection of red cells, white cells, epithelial cells, bacteria and yeasts	Investigation of urine by UF5000i by flow cytometry, microscopy and culture UF5000i by flow cytometry PREVI-Isola ID 6591 UF5000i Urine analyser ID 694 Routine urine bacteriology	Whiston
Urine	Determination of antimicrobial susceptibility including direct susceptibility	Disc Diffusion (EUCAST method) ID 1250 Sensitivity testing	Whiston
CSF	Detection, identification and quantification (including differential) of: White blood cells Red blood cells Bacterial and fungal cells	Investigation of cerebrospinal fluids Microscopy stained and unstained including Gram and differential) Cell count and differential using Kova slides ID1254 Routine CSF bacteriology ID 8170 Staining methods ID 735 Microscopy	Whiston
Synovial fluids	Presence of crystals: Monosodium urate monohydrate (MSUM) Calcium Pyrophosphate Dihydrate (CPPD)	Microscopy - stained and unstained Cell count and differential using Kova slides ID 8170 Staining methods ID 735 Microscopy	Whiston
Prosthetic Joint Fluids	Detection, identification and quantification (including differential) of: White blood cells	ID 16506 Bone, soft tissues, fluids, tips and artificial material ID 1005 Joint Fluid Preparation and Crystal Identification	

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUES AND FLUIDS	Microbiological examination activities for the purpose of clinical diagnosis	In-house documented procedures following current UKHSA Standards for Microbiological Investigations (SMIs)	
Ascitic fluid	Detection and quantification of White cells and differential reporting of Leucocyte count	Staining (Gram and differential) and microscopy Cell count and differential using Kova slides ID17945 Fluid processing ID19997 Quick guide Ascitic fluid neutrophil counts ID 735 Microscopy ID 8170 Staining methods	Whiston
Sputum, Pleural fluid, bronchoalveolar samples (BAL), Tissue/Lymph nodes; Urgent samples only)	Screening and detection of acid-alcohol fast bacilli	ID 17945 Fluid processing ID 16506 Bone, soft tissues, fluids, tips and artificial material ID 17948 Bone and tissue flow diagram ID 735 Microscopy - Fluorescence ID 8170 Staining methods using Auramine phenol and Cold ZN ID 1020 Routine sputum bacteriology	Whiston
Screening samples: Nasal, Throat, Perineum, Groin, Axillae, Nasal swab for hip & Knee replacement patients, Rectal, Wound swabs, CSU, Urine, Faeces, Sputum	MRSA screening Isolation of MRSA; MSSA; CPE; VRE; ESBL; Group A Streptococci	Manual culture and manual chromogenic culture ID 16313 Epidemiology plating scheme ID 2588 Epidemiological screening ID 17003 Associate Practitioner: Epidemiology screens	Whiston
Faeces & Faecal microbiota transplant (FMT) Donor Testing	Detection of enteric pathogens • Salmonella sp. • Shigella sp. • Shigella IPaH gene • Campylobacter jejuni/coli/lari • E. coli 0157 via VTec gene (stx1 & stx2) • Cryptosporidium parvum, hominis • Giardia	Nucleic acid testing DNA PCR Semi-automated procedure - Enteric bioreal PCR (Serosep) and Roche PCR Light cycler ID 22915 Faecal PCR Testing, Serosep	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUES AND FLUIDS	Microbiological examination activities for the purpose of clinical diagnosis	In-house documented procedures following current UKHSA Standards for Microbiological Investigations (SMIs)	
Faeces	Detection of Clostridium difficile toxins A and B and Clostridium difficile glutamate dehydrogenase (GDH)	ID 2253 Cl. Difficile Testings TECHLAB® C. DIFF QUIK CHECK COMPLETE® test rapid membrane enzyme immunoassay (manual back up)	Whiston
Faeces	Isolation and characterisation of enteric bacterial pathogens *Salmonella* sp. *Shigella* sp. *Campylobacter* sp. *Escherichia coli* O157 *Vibrio* spp.	Manual culture ID 693 Routine faeces bench ID 16728 Useful dates for processing faeces samples ID 20651 FMT Testing main lab record Staining & Microscopy ID 8170 Staining methods ID 735 Microscopy	Whiston
Faeces	*Giardia.* *Cryptosporidium*	Staining & Microscopy ID 8170 Staining methods ID 735 Microscopy	Whiston
Faeces	Rota/Adenovirus antigen detection	Werfen Biokit ID 693 Routine faeces bench	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUES AND FLUIDS	Microbiological examination activities for the purpose of clinical diagnosis	In-house documented procedures following current UKHSA Standards for Microbiological Investigations (SMIs)	
Bacterial and fungal isolates	Identification of micro-organisms -preliminary identification and automated identification of medically important bacteria and yeasts	Vitek MS Prime (MALDI-TOF) and Vitek2 and manual identification Semi-automated method: ID 20487 Vitek MS Prime and Vitek2 Sample Preparation Procedure ID 16959 Vitek sampling process flow chart Supporting bacterial identification SOPs ID 23890 Identification of Staphylococcus, Micrococcus and Rothia species ID 24852 Identification of Streptococci, Enterococci and related organisms ID 23889 Identification of Enterobacteriaceae ID 25312 Identification of Haemophilus species and the HACEK Group of Organisms ID 24965 Identification of Neisseria species ID 25674 Identification of Pseudomonas species and other Non-Glucose Fermenters ID 25676 Identification of Pasteurella species and morphologically similar organisms ID 23888 Identification of E.coli O157 ID 24993 Identification of Vibrio and Aeromonas species ID 24841 Identification of Salmonella species ID 24994 Identification of Yersinia species ID26319 Identification of Corynebacterium species.	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUES AND FLUIDS	Microbiological examination activities for the purpose of clinical diagnosis	In-house documented procedures following current UKHSA Standards for Microbiological Investigations (SMIs)	
Bacterial and fungal isolates (cont'd)	Identification of micro-organisms -preliminary identification and automated identification of medically important bacteria and yeasts (cont'd)	Vitek MS (MALDI-TOF) and Vitek2 and manual identification Semi-automated method: ID 26318 Identification of Shigella species ID 26320 Identification of Bordetella species ID 744 Additional identification methods Microbiology ID 26321 Identification of Clostridium species ID 26322 Identification of aerobic actinomycetes ID 57 Identification of Bacillus species ID 26322 Identification of Moraxella species and morphologically similar organisms ID 23624 Identification of Pasteurella species and morphologically similar bacterial ID 26325 Identification of anaerobic cocci ID 26326 Identification of anaerobic Actinomyces species ID 26327 Identification of anaerobic Gram negative rods	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUES AND FLUIDS	Microbiological examination activities for the purpose of clinical diagnosis	In-house documented procedures following current UKHSA Standards for Microbiological Investigations (SMIs)	
Bacterial isolates	Antimicrobial susceptibility testing of micro-organisms	Determination of Antimicrobial Susceptibility by Disc Diffusion based on EUCAST Guidelines also gradient MIC (etest) and Automated MIC (Vitek 2) EUCAST (manual disc /strip diffusion) Broth dilution MIC testing for colistin sensitivity on Enterobacteriaceae, Pseudomonas and Acinetobacter species ID 16644 Associate Practitioner Disc diffusion sensitivity ID 1250 Sensitivity testing ID 745 MIC using E test strips ID 1251 Detection of Extended-Spectrum β-Lactamases (ESBL) and AmpC Semi-automated method: ID 20487 Vitek MS and Vitek2 Sample Preparation Procedure ID 16959 Vitek sampling process flow chart ID 1250 ID 16644	Whiston
Hair, Nail Skin, Sputum, BAL	Examination and general isolation and characterisation of fungal organisms of clinical significance	Manual inoculation, media culture, and macroscopic & Fluorescence microscopic examination (stained & unstained) using: ID 20650 Routine Mycology ID 735 Microscopy ID 8170 Staining methods ID 1020 Routine sputum bacteriology	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN TISSUES AND FLUIDS	Microbiological examination activities for the purpose of clinical diagnosis	In-house documented procedures following current UKHSA Standards for Microbiological Investigations (SMIs)	
Faeces, urine and perianal sellotape slides	Detection of clinically significant faecal ova, cysts and parasites	Parasep Concentration method, direct examination and microscopy ID 693 Routine faeces bench ID 735 Microscopy ID 8170 Staining methods ID 694 Routine urine bacteriology	Whiston
Blood	Therapeutic Drug Monitoring: Teicoplanin	Indiko Plus Analyser by turbidimetric immunoassay ID 44944	Whiston
Serum	Anti Streptolysin	Thermo Scientific Indiko plus assay (photometry) ASOT Indiko Plus Assay ID 59774	Whiston
Bacterial isolates	Antimicrobial susceptibility testing of micro-organisms	Rapid microbial sensitivity testing using Q-linea ASTar ASTar SOP ID 66606	Whiston
Blood	Detection of pathogenic organisms	Bacterial culture of pathogenic organisms using BacT Alert Virtuo (colorimetry) BactAlert Virtuo blood culture Monitoring ID3891	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS	Serological examination activities for the purpose of clinical diagnosis	Following in-house documented procedures	
Serum	Detection of Measles IgG antibody, Mumps IgG antibody, Toxoplasma IgM/IgG antibody VZV IgG antibody EBV IgG/IgM antibody Lymes IgG/IgM antibody to Borrelia burgdorferi HIV secondary testing (anti-HIV-1 (groups M and O), anti-HIV-2 total immunoglobulins and HIV-1 p24 antigen	BioMerieux VIDAS3 analyser Immunoassays using enzyme linked fluorescent assay ID 9526 Routine serology ID 23634 Use of VIDAS3	Whiston
Serum	Quantitative detection of anti - streptolysin O (ASL)	Biokit rheumajet ASO ID 9526 Routine serology	Whiston
Urine	Detection of soluble Pneumococcal urinary antigen	Binax Now kit by Alere Lateral flow device ID 4595 Detection of Pneumococcal antigens in urine	Whiston
Urine	Detection of *Legionella pneumophila* serotype 1 antigen	Binax Now kit by Alere Lateral flow device ID 4595 Detection of Legionella antigen in urine	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS	Serological examination activities for the purpose of clinical diagnosis	Following in-house documented procedures	
Blood, serum	Detection of: HIV antigen/antibody* (HIV-antibodies, HIV-2 antibodies, p24 antigen) HBV surface antigen* HBV surface antibody HBV core antibody HCV antibody Hepatitis A IgM antibody Total Hepatitis A antibody Syphilis IgG & IgM antibody*	Documented in-house methods to meet the requirements of the IDPS screening programme(s) as defined in the July 2018 'Infectious diseases in pregnancy screening: Laboratory QC evidence requirements (relevant tests marked with *) Siemens Atellica (Spectrophotometry) System ID 43976 Serology Biochemistry ID 8655 Routine Serology ID 9526	Whiston
Urine	Streptococcus pneumoniae antigen	SD Biosensor Standard F S. pneumoniae processing (fluorescence immunoassay) STANDARD F Streptococcus pneumoniae processing SOP ID 71577	Whiston
Urine	Legionella pneumophila serogroup 1, 3, 5, 6 and 8 antigens	SD Biosensor Standard F Legionella processing (fluorescence immunoassay) STANDARD F: Legionella pneumophila urinary antigen processing ID 71576	Whiston
Faeces	C. difficile antigen glutamate dehydrogenase (GDH) C. difficile toxin A/B	Standard F C. difficile Antigen and Toxin processing (fluorescence immunoassay) Standard F C. difficile Antigen and Toxin Processing ID 71770	Whiston
Faeces	Rotavirus antigen/ Adenovirus antigen	Standard F Rotavirus and Adenovirus processing (fluorescence immunoassay) Standard F Rotavirus and Adenovirus Processing ID 71771	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS	Serological examination activities for the purpose of clinical diagnosis	Following in-house documented procedures	
		Diasorin Liaison using chemiluminescent immunoassay	Whiston
Faeces	Helicobacter pylori (H. pylori) antigen	ID 69500	
Serum	CMV IgG and IgM antibodies	ID 69522	
Serum	Parvovirus B19 IgG and IgM antibodies	ID 69522	
Serum	Rubella IgG and IgM antibodies	ID 69522	

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS	Molecular diagnostic examination activities for the purpose of clinical diagnosis	Following in-house documented procedures	
Urines and genital swabs, screening samples from national screening programme	*Chlamydia trachomatis* and *Neisseria gonorrhoeae* rRNA and confirmation by secondary probes	Hologic Panther Aptima Combo 2 assay Molecular: transcription mediated amplification of the RNA target detected by hybridisation and real time fluorescence ID 14142 Detection of Chlamydia trachomatis and Neisseria gonorrhoeae by nucleic acid amplification test (NAAT)	Whiston
Bacterial culture isolates	*Staphylococcus aureus* (SA) and methicillin-resistant *Staphylococcus aureus* (MRSA); detection and differentiation of the blaKPC, blaNDM, blaVIM, blaOXA-48, and blaIMP-1 gene sequences associated with carbapenem-nonsusceptibility in gram-negative bacteria (CPE) used for confirmation	Cepheid GeneXpert ID 24499 Cepheid	Whiston
Swabs, blood culture samples	MRSA, MSSA	Cepheid GeneXpert ID 24499 Cepheid PCR ID 1253 Blood culture Bacteriology ID 18576 Positive blood culture sample processing	Whiston
Faeces	Norovirus	Cepheid GeneXpert ID 24499 Cepheid PCR	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Molecular diagnostic examination activities for the purpose of clinical diagnosis	Following in-house documented procedures	
		Hologic Panther Aptima assay Molecular: transcription mediated amplification of the RNA target detected by hybridisation and real time fluorescence	Whiston
Anogenital skin lesions	HSV I/II	ID 38789	
Endocervical swabs, vaginal swabs and female urine	*Trichomonas vaginalis*	ID 38828	
Endocervical swabs, vaginal swabs, female urine, male urethral swabs, penile swabs and male urine	*Mycoplasma genitalium*	ID 38827	
Nasopharyngeal Aspirates and Nose/Throat swabs in VTM	Influenza A, influenza B, Respiratory syncytial virus (RSV) viral RNA,	Cepheid GeneXpert Cepheid PCR Xpert® Xpress Flu/RSV (Ref XPRSFLU/RSV-CE-10 ID 24499	Whiston
Nose and Throat Swabs in VTM	Detection of SARS CoV-2 virus RNA (COVID-19) specific gene sequences: E, N2	Cepheid GeneXpert Cepheid PCR Xpert® Xpress SARS-CoV-2 (Ref XPRSARS-COV2-10) ID 24499	Whiston
Nose and Throat Swabs in VTM	Detection of SARS CoV-2 virus RNA (COVID-19) specific gene sequences: E, N2	Cepheid GeneXpert Cepheid PCR Xpert® Xpress SARS-CoV-2 (Ref XPRSARS-COV2-10) ID 44369	Southport
Nose and Throat Swabs in VTM	Detection of: Influenza A Influenza B RSV viral RNA	Cepheid GeneXpert Cepheid PCR Xpert® Xpress Flu/RSV ID 44369	Southport

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Molecular diagnostic examination activities for the purpose of clinical diagnosis	Following in-house documented procedures	
Nose and Throat Swabs in VTM	Detection of SARS-CoV-2/Influenza A/ Influenza B/RSV	Cepheid GeneXpert Cepheid PCR Xpert® Xpress SARSCoV-2/ Flu/ RSV assay ID 24499	Whiston
Faeces	Detection of Clostridium difficile toxins A and B	Nucleic acid testing using PCR Cepheid GeneXpert ID 2253 Cl. difficile Testings	Whiston
Nose and Throat Swabs in VTM	Detection of SARS CoV-2 virus RNA (COVID-19) specific gene sequences: ORFab region 1 and 2	Hologic Panther Aptima Fusion using Aptima Fusion SARS-CoV-2 Assay kit by target capture-transcription-mediated amplification (TMA), and dual kinetic assay (DKA) SOP48306 Aptima SARS CoV2 Panther assay	Whiston
Nose and Throat Swabs in VTM	Detection of viral RNA: Influenza A Influenza B RSV	Panther Fusion Flu A B RSV Assay ID 57913	Whiston
Nose and Throat Swabs in VTM	Detection of SARS CoV-2 virus RNA (COVID-19) specific gene sequences: ORFab and N	SAMBA II Sars Cov2 PCR test SOP 51659 SAMBA II SARS CoV 2 PCR assay.	Whiston Southport
Faeces	Detection of *C. difficile* toxin B gene (tcdB)	EntericBio realtime® (Serosep) PCR ID 2253 Cl. Difficile Testings	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	<u>Molecular diagnostic examination activities for the purpose of clinical diagnosis</u>	Following in-house documented procedures	
CSF Excludes samples from immunocompromised patients	Detection of the following microorganisms using the Meningitis/Encephalitis panel: *Escherichia coli* K1 *Haemophilus influenzae* *Listeria monocytogenes* *Neisseria meningitidis* *Streptococcus agalactiae* *Streptococcus pneumoniae* *Cryptococcus gattii/neoformans* Cytomegalovirus Herpes simplex virus 1 Herpes simplex virus 2 Human herpesvirus 6 Enterovirus Human parechovirus Varicella zoster virus	Biomerieux Biofire Film Array using multiplexed nucleic acid detection (PCR) ID 37879	Whiston
Sputum/ Tracheal Aspirates/ Bronchial Lavage	Extended respiratory panel: <u>Viruses:</u> Adenovirus Coronavirus HKU1 Coronavirus NL63 Coronavirus 229E Coronavirus OC43 Human Metapneumovirus Human Rhinovirus/Enterovirus Influenza A Influenza B MERS CoV Parainfluenza Virus 1-4 Respiratory Syncytial Virus <u>Bacteria:</u> *Bordetella parapertussis* *Bordetella pertussis* Atypical *Chlamydia pneumoniae* *Mycoplasma pneumoniae*	Biomerieux Biofire Film Array using multiplexed nucleic acid detection (PCR) ID 37879	Whiston

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Molecular diagnostic examination activities for the purpose of clinical diagnosis (cont'd)	Following in-house documented procedures	
Sputum/ Tracheal Aspirates/ Bronchial Lavage	Pneumonia Panel: Viruses: Adenovirus Coronavirus Human Metapneumovirus Human Rhinovirus/Enterovirus Influenza A Influenza B Middle East Respiratory Syndrome Coronavirus (MERS-CoV) Parainfluenza Virus Respiratory Syncytial Virus Atypicals: *Chlamydophila pneumoniae* *Mycoplasma pneumoniae* *Legionella pneumophila* Resistant Markers mecA/C and MREJ KPC NDM OXA48 VIM IMP CTX-M (ESBL)	Biomerieux Biofire Film Array using multiplexed nucleic acid detection (PCR) ID 37879	

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Molecular diagnostic examination activities for the purpose of clinical diagnosis (cont'd)	Following in-house documented procedures	
Sputum/ Tracheal Aspirates/ Bronchial Lavage (cont'd)	Pneumonia Panel (cont'd): Bacteria *Acinetobacter* complex *Bordetella pertussis* *Enterobacter cloacae* complex *Escherichia coli* *Haemophilus influenza* *Klebsiella aerogenes* *Klebsiella oxytoca* *Klebsiella pneumonia* group Syndrome Coronavirus *Moraxella catarrhalis* *Proteus spp.* *Pseudomonas aeruginosa* *Staphylococcus aureus* *Streptococcus agalactiae* *Streptococcus pneumoniae* *Streptococcus pyogenes*	Biomerieux Biofire Film Array using multiplexed nucleic acid detection (PCR) ID 37879	Whiston
		Cepheid Infinity using RT PCR and	Whiston
Bacterial culture isolates	Vancomycin- resistant enterococci gene targets vanA and vanB	Xpert vanA/vanB ID: 77542	
Bacterial culture isolates	Carbapenem susceptibility - Detection and differentiation blaKPC (KPC), blaNDM (NDM), blaVIM (VIM), blaOXA-48 (OXA-48), and blaIMP (IMP) gene sequences	Xpert Carba-R ID: 77542	

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Molecular diagnostic examination activities for the purpose of clinical diagnosis (cont'd)	Following in-house documented procedures	
Blood culture samples	Staphylococcus aureus (SA) and methicillin-resistant Staphylococcus aureus (MRSA) Gene targets: Staphylococcal protein A (spa) mecA, Staphylococcal cassette chromosome (SCCmec) 4.6 Xpert	Xpert MRSA/SA Blood Culture ID: 77542	
Bacterial culture isolates	Methicillin-resistant Staphylococcus aureus (MRSA) - Gene targets: Staphylococcal protein A (spa) mecA Staphylococcal cassette chromosome (SCCmec) 4.6 Xpert	Xpert MRSA NxG test ID: 77542	
Faeces	Norovirus type I and II	Xpert Norovirus ID: 77542	
Nose and throat swabs in viral transport media	Gene targets: Influenza A RNA/ Influenza B RNA/ RSV RNA/ SARS-CoV-2 RNA	Xpert Xpress SARS-CoV-2/Flu/RSV (combo)- ID: 77542	
Nose and throat swabs in viral transport media Nasopharyngeal aspirates	SARS CoV-2 virus RNA (COVID-19) specific gene sequences: E, N2	Xpert Xpress SARS-CoV-2 ID: 77542	
Faeces	C. difficile binary toxin	Xpert C.difficile BT ID: 77542	

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
HUMAN BODY FLUIDS (cont'd)	Andrological examination activities for the purpose of clinical diagnosis	Following in-house documented procedures	
Semen	Post vasectomy Detection of sperm Sperm concentration	Based on 2016 Laboratory guidelines for post vasectomy semen analysis: Association of Biomedical Andrologists, the British Andrology Society and the British Association of Urological Surgeons) Manual method using wet prep and centrifugation and documented in-house procedure ID 691 Semen analysis	Whiston
Semen	Fertility testing Volume pH Sperm morphology including TZI scoring Sperm concentration Sperm motility Sperm vitality	Based on WHO laboratory manual for the examination and processing of human semen (Sixth edition 2021) and manual method / documented in-house procedure ID 691 Semen analysis Volume/ weight Colorimetric strips Stained slides (Papanicolaou) microscopy (Bright Field) Improved Neubauer Cell counting chambers and Microscopy (phase contrast) Microscopy (Phase contrast) Stained slide (Eosin/Nigrosin dye exclusion test) microscopy (Bright field)	
Semen	Fertility testing Sperm concentration Sperm motility	CASA SAMi (Pro-creative Diagnostics Ltd) Semi automated semen analysis and documented procedure ID 691 Semen analysis	
END			