# **Schedule of Accreditation**

issued by

**United Kingdom Accreditation Service** 

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



#### Locations covered by the organisation and their relevant activities

#### Laboratory locations:

Location details		Activity	
Address Pathology Directorate Histopathology University Hospitals of North Midlands NHS Trust Royal Stoke University Hospital (RSUH) Main Building –floor 2 Newcastle Road Stoke-on-Trent ST4 6QG	Local contact As above	Histopathology Non-gynae cytology	

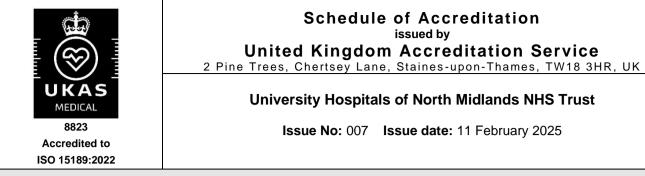
#### Additional site activity performed away from the laboratory

Location details	Activities
Royal Stoke University Hospital (RSUH) On-site Mortuary and Body Store incl. Post Mortem	Reception, storage and release of the deceased
	FNA Clinic

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	University Hospitals of North Midlands NHS Trust
8823 Accredited to ISO 15189:2022	Issue No: 007 Issue date: 11 February 2025
Testing performed by the Organisation at the locations specified	

#### Site activities performed away from the locations listed above:

Location details	Activity
Body Store County Hospital	Reception, storage and release of the deceased
Weston Road Stafford ST16 3SA	Reception, storage and release of the deceased
Body Store Macclesfield District General Hospital Victoria Rd Macclesfield SK10 3BL	Reception, storage and release of the deceased
Body Store Leighton Hospital Middlewich Rd Crewe CW1 4QJ	



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Testing performed by the Organisation at the locations specified

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
HUMAN BODY TISSUE AND FLUIDS	Examination in order to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis	Macroscopic and Microscopic examination:
Tissue as FFPE; (diagnostic/biopsy, excision and resection specimens from anatomical sites as listed below):	<u>Histopathology</u>	Documented in house methods incorporating manufacturers' instruction where relevant:
Breast Urology Gynaecology Upper GI Lower GI Respiratory Renal Lymphoma Dermatology Head and neck(frozen section) Endocrine		Specimen dissection and tissue processing: Micropix Macro Imager system MModal Fluency Direct Speech Recognition SOP HPBG048 AFOS downdraft dissection bench, Mach Air fume cupboard, Shandon tissue processors, Excelsior and VIP Leica 1950 cryostat (frozen sections)
Soft tissue and bone		HPSOPCU003 – Specimen HPSOPCU011- Decalcification of Calcified specimens HPSOPCU095
		Tissue embedding Sakura embedding consoles – Tissue Tek TEC 5 EME-2 HPSOPML013 – SMART Automation using Paraform cassettes and A120 automated embedding machine – HPSOPYCU097 HPSOPML073
		Tissue Sectioning Microtomes HPSOPML043 – Section cutting
	Routine Staining for identification of basophilic and eosinophilic structures	Haematoxylin and Eosin stain Automated: Tissue-Tek Prisma staining machine and cover taper.
		Vantage specimen tracking system – HPEXTREC-370

#### DETAIL OF ACCREDITATION



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HUMAN BODY TISSUE AND FLUIDS (cont'd)	Examination in order to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis (cont'd)	
	Histopathology (cont'd)	
FFPE	Special staining for identification of:	Roche Ventana automated special stainer
	Acid mucins	Alcian Blue (M)
	Acid Mucins, Neutral Mucins	Alcian Blue PAS(ABPAS) (M)
	Acid/Neutral Mucins	Alcian Blue PAS with Amylase (M)
	Amyloid	Alkaline Congo Red (M)
	Elastic Fibres, Collagen, Smooth Muscle	Elastic Van Gieson (EVG) (M)
	Cell Nuclei, Cytoplasm, Connective Tissue Differentiation.	Eosin working solution (M)
	H. pylori, Haemopoietic Cells	Giemsa (A)
	Reticulin Fibres	Gordon And Sweet's Reticulin (A)
	Gram positive, Gram negative Bacteria	Gram stain (M)



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HUMAN BODY TISSUE AND FLUIDS (cont'd)	Examination in order to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis (cont'd)	
	Histopathology (cont'd)	
FFPE (cont'd)	Special staining for identification of (cont'd):	Roche Ventana automated special stainer
	Fungi	Grocott (A)
	Collagen, Smooth muscle	Haematoxylin Van Gieson (HVG) (M)
	Glomerular basement membranes	Jones Silver Methenamine (PA silver) (A)
	Fibrin	Martius Scarlet Blue (MSB) (M)
	Melanin	Masson Fontana (M)
	Connective tissue, smooth muscle	Masson Trichrome (A)
	Melanin	Melanin Bleach (M)
	Lipids	Oil Red O (M)
	Neutral Mucins	PAS With Amylase (HPSOPSS028) (A)



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HUMAN BODY TISSUE AND FLUIDS (cont'd)	Examination in order to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis (cont'd)	
	Histopathology (cont'd)	
FFPE (cont'd)	Special staining for identification of (cont'd):	
	Mineralised bone	Von Kossa (M)
	Mycobacterium.leprae	Wade Fite (M)
	Spirochetes	Warthin and Starry (A)
	Mycobacterium bacilli	Ziehl Neelson (ZN) (M)
	Immunohistochemistry for the identification of:	Roche Ventana automated special stainer and1plus Ventana Benchmark Ultra and Ventana Benchmark XT Documented in house methods incorporating manufacturers' instruction where relevant:
		HPSOPICC – Programming of the Benchmark Ultra
	Smooth muscle cells, myoepithelial cells	Actin
	Macrophages, neutrophils, A1AT accumulation	Alpha-1-Antitrypsin
	Embryonic cell in normal tissues and germ tumours	Alpha Fetoprotein
	Used in prostate biopsies to determine invasive components	34βΕ12



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HUMAN BODY TISSUE AND FLUIDS (cont'd)	Examination in order to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis	
FFPE (cont'd)	Immunohistochemistry for the identification of (cont'd):	
	Differentiates adrenal cortical tumours and renal cell carcinoma. Sex cord stromal tumours of the ovary and trophoblastic tumours.	A inhibin
	p80 protein	Anaplastic lymphoma kinase (ALK)
	HGPIN, prostate adenocarcinoma	Alpha methyl acyl coenzyme A racemase (AMACR)
	Diffuse lymph-proliferative disease and neoplastic cells of follicular lymphomas.	BCL-2
	Follicular lymphomas, diffuse large B cell lymphomas, Burkitt's lymphomas, lymphocyte predominant Hodgkin's disease.	BCL-6
	Epithelial cell types	Ber-EP4
	BK Virus (SV40) infected cells in renal transplant	BK virus
	Detectable in B cell populations in reactive lymphoid tissues,	BOB-1
	C4d complement in renal tubules, peritubular& glomerular capillaries.	C4d
	Adenocarcinomas of the pancreas, stomach, colon and gall bladder, primary and metastatic ovarian carcinomas.	CA19.9
	Marker for ovarian epithelial malignancies, also found in adenocarcinoma of colon, breast carcinoma, thyroid follicular adenoma and transitional cell carcinoma	CA125



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HUMAN BODY TISSUE AND FLUIDS (cont'd)	Examination in order to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis (cont'd)	
FFPE (cont'd)	Immunohistochemistry for the identification of (cont'd):	
	Parafollicular cells in thyroid and medullary thyroid carcinomas	Calcitonin
	Marker for mesotheliomas	Calretinin
	T cells, subset of natural killer cells	CD2
	Langerhan's cells, interdigitating dendritic cells, associated disease states	CD1A
	T cells in thymus, bone marrow, peripheral lymphoid tissue and blood.	CD3
	T cells (helper and mature)	CD4
	Mature T cells, T cell lymphomas	CD5
	CD7 is used to aid in the identification of T cell lymphomas	CD7
	T cells	CD8
	Mature B cells, follicular dendritic cells, CALLA	CD10



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HUMAN BODY TISSUE AND FLUIDS (cont'd)	Examination in order to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis (cont'd)	
FFPE (cont'd)	Immunohistochemistry for the identification of: (cont'd)	
	Granulocytes, Reed-Sternberg cells	CD15
	B cells and B-cell neoplasms	CD20
	Mature B cells, Follicular dendritic cells	CD21
	B cells, some T cells	CD23
	ALCL, Reed Sternberg cells, Hodgkin's disease	CD30
	Endothelial cells	CD31
	Haematopoietic cells, vascular endothelium	CD34
	T cells and myeloid lineage cells	CD43
	Natural killer cells, neuroendocrine tissues	CD56
	NK cells found in follicular centre cell lymphomas, neuroendocrine cells derived tumours, carcinoid tumour, medulloblastoma and astrocytoma.	CD57
	Glycoprotein	CD61
	Macrophages, monocytes, granulocytes	CD68
	Mast cells	CD79 alpha
	Ewing's sarcoma and T cell lymphoma.	CD99



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FFPE (cont'd)	Immunohistochemistry for the identification of: (cont'd)	
	Stem cells. Melanocytes, Mast cells, germ cells, Skin basal cells	CD117
	Plasma cells, Multiple myeloma	C138
	CEA glycoproteins	Carcinoembryonic antigen (CEA) (P&M)
	Tissues of neuroendocrine origin	Chromogranin (CHROM)
	ID squamous cell carcinoma; distinguishing malignant mesothelioma from lung adenocarcinomas.	CK5/6
	Distinguish between ovarian carcinomas from colon carcinomas.	CK7
	Determine if a tumour is invasive or in situ in breast specimens. Distinguish between stratified and simple epithelia.	CK14
	Normal & neoplastic epithelia (colon)	CK20
	Overexpressed in a range of neoplasms	Cyclin D1 (CYC D1)
	HCMV infected cells	CMV
	Striated and smooth muscle cells	Desmin
	Identification and diagnosis of gastrointestinal stromal tumours	DOG-1
	Epstein Barr Virus infected cells.	EBV(LMP)
	Epithelial cells	E-Cadherin
	Normal and neoplastic epithelium	ЕМА
	Determine tumour origin	ER



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FFPE (cont'd)	Immunohistochemistry for the identification of: (cont'd)	
	Distinguishing neoplasms of astrocytic origin from other neoplasms in the central nervous system.	GFAP
	Diagnosis of myeloproliferative disorders	Glycophorin C
	Cytotoxic T lymphocytes and in natural killer cells.	Granzyme B
	Gross cystic disease fluid protein (apocrine cells)	GCDFP 15
	Distinguishing mesothelioma from adenocarcinomas of various origins. Distinguishing thyroid carcinomas from benign lesions.	HBME1
	Differential diagnosis hepatoblastoma versus other small round cell tumours.	HEPPAR 1
	Aid in assessment of breast cancer when Herceptin treatment is considered.	HER2
	Diagnosis of hairy cell leukaemia and lymphoma in the spleen.	Hairy Cell Leukaemia (HCL)
	Placental trophoblasts	HCG
	Hep B infected cells (core Ag)	НЕРВ С
	Melanoma, melanocyte differentiation	HMB45
	Follicle cells – ID leukaemia's, plasmacytomas, and certain non- Hodgkin's lymphomas.	Карра
	B cell follicles	LAMDA



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FFPE (cont'd)	Immunohistochemistry for the identification of: (cont'd)	
	T & B Cells (Pan-lymphocyte marker)	LCA
	Melanoma marker	Melan-A
	Nuclear protein	MIB 1
	Diagnosis various epithelial tumours	MNF 116
	Negative marker for mesothelioma. Differentiating tumours of unknown origin in liver cancers and distinguishing cholangiocarcinoma (+) from hepatocellular carcinomas (-). Demonstration of epithelial cell neoplasms	MOC 31
	Multiple myeloma oncogene-1	MUM1
	Differentiating between myeloid and lymphoid leukaemia.	MYELO
	Rhabdomyoblastic differentiation	MYOG
	Demonstration of Hirschsprung's disease, gangliomas, Merkel Cell tumours.	NFP2
	Peripheral nerves, neuroendocrine tumours	NSE
	Germinal centre derived lymphomas, some B cell lymphomas.	OCT2
	Detected in Germ cell tumours, seminomas and embryonal carcinomas	OCT3/4
	Pro-, pre- and mature B-cells	PAX-5
	HPV Marker	P16



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FFPE (cont'd)	Immunohistochemistry for the identification of (cont'd)	
	Tumour suppressor protein (carcinomas, many neoplasms and normal cells)	p53
	Prostate basal cells, proliferative cells	p63
	Nuclei of cells expressing progesterone	Progesterone receptors
	Neurones, melanocytes, neuroendocrine cells	Protein Gene product (PGP9.5) PGM1
	Germ cell tumours	PLAP
	Prostate secretory and ductal epithelium	PSA
	Antigenic markers of prostatic carcinoma.	PSAP
	Diagnosis of renal cell carcinoma	RCC
	Schwann cells, nerve processes, S100+ neoplasms	S100
	Neuroendocrine cells	Synaptophysin (SYNAP)
	Marker for diagnosis & classification of acute lymphoblastic lymphoma/leukaemia.	TDT
	Thyroid follicular cells	TTF
	Thyroglobulin containing cells	Thyroglobulin
	Lymphocytes with cytolytic potential.	TIA-1
	Cells of mesenchymal origin	Vimentin



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HUMAN BODY TISSUE AND FLUIDS (cont'd)	Examination in order to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis (cont'd)	
FFPE (cont'd)	Immunohistochemistry for the identification of (cont'd)	
	Wilms tumour	WT-1
HUMAN BODY TISSUE AND FLUIDS (cont'd)	Examination in order to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis (cont'd)	
	Histopathology	
Stained Slides prepared as above	Morphological assessment and interpretation/diagnosis	HPSOPO047 – Voice dictation of report using Dragon dictation



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HUMAN BODY TISSUE AND FLUIDS (cont'd)	Examination in order to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis (cont'd)	
	Histopathology (cont'd)	
Diagnostic/biopsy, excision and resection specimens from anatomical sites as	Staining to identify or exclude morphological and cytological abnormalities in:	Manufacturer's instructions and documented in-house procedures with reference to:
listed below): Breast Urology Gynaecology Upper GI Lower GI Respiratory Renal Lymphoma Dermatology Head and neck(frozen section) Endocrine Soft tissue and bone	Cell Nuclei, Cytoplasm, Connective tissue differentiation	HOSOPCU017 –Performing a frozen section
Frozen Section on glass slide prepared as above		Immunofluorescence: Leica 1950 cryostat. Ventana Benchmark Ultra. EUROstar UV microscope
	IgA	FITC labelled IgA
	IgM	FITC labelled IgM
	Fibrinogen	FITC labelled Fibrinogen
	The first component of complement (C1)	FITC C1q
	C3 complement	FITC labelledC3c
	Follicle cells -Identification of leukaemia's, plasmacytomas, and certain non- Hodgkin's lymphomas.	Карра



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	of measurement	Equipment/Techniques used
HUMAN BODY TISSUE AND FLUIDS (cont'd)	Examination in order to identify or exclude morphological and cytological abnormalities for the purposes of diagnosis (cont'd)	Manufacturer's instructions and documented in-house procedures with reference to:
Bronchoalveolar lavage (BAL) Bronchial brushings Bronchial washings Biliary brushings	Preparation and screening to identify or exclude cytological abnormailities for the purpose of diagnosis	Thermo Scientific centrifuge Thermo Shandon Cytospin 3 Leica Auto stainer XL
FNA samples including EUS, EBUS, Lymph Node, Pancreatic, salivary gland and Thyroid.		HPSOPNG001, HPSOPNG002 HPSOPNG003, HPSOPNG004, HPSOPNG005, HPSOPNG006,
FNA samples including Head & Neck obtained at FNA clinic		
Fluids including pericardial, peritoneal, lung squeeze washings and brushings, Sputum Urine CSF Cyst Fluid		
Slides, clots and cell blocks prepared in house as above	Diagnostic cytology examinations to assist in clinical investigations	In house documented procedure in conjunction with manufacturer's instructions for: Ventana Benchmark Ultra
	Immunocytochemical stains	
	Epithelial cell types	Ber-EP4
	Marker for mesotheliomas	Calretinin
	Glandular cells	<u>CAM5.2</u>
	T cells in thymus, bone marrow, peripheral lymphoid tissue and blood	<u>CD3</u>
	B cells and B-cell neoplasms	<u>CD20</u>
	CEA glycoproteins	<u>CEA</u>
	Squamous cell carcinoma	<u>CK5/6</u>



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Slides, clots and cell blocks prepared in house as above	Diagnostic cytology examinations to assist in clinical investigations	In house documented procedure in conjunction with manufacturer's instructions for:
	Immunocytochemical stains	Ventana Benchmark Ultra
	Distinguish between ovarian carcinomas and colon carcinomas	CK7
	Identification and distinguishing adenocarcinoma and glandular tumours	СК20
	Normal and neoplastic epithelium	ЕМА
	Leucocyte differentiation	LCA
	Schwann cells	S100
Slides, clots and cell blocks prepared in house as above	Diagnostic cytology examinations to assist in clinical investigations	In house documented procedure in conjunction with manufacturer's instructions for:
		Routine Stains (Manual) Rapi-Diff II stain Atom Scientific
Slides, clots and cell blocks prepared in house as above	Diagnostic cytology examinations to assist in clinical investigations	In house documented procedure in conjunction with manufacturer's instructions for:
	Cellular deposits of Iron and Sideroblasts	Perls
	Lipids	Oil red O
END		