

UHSFT Pathology Laboratory Medicine List of Investigations

For information on the basis of reference intervals or decision limits, please contact the laboratory

Please note multiple requests and cascade requests have a cumulative effect on turnaround times. Please contact the laboratory if an expected result time is required.

DEPARTMENT/TEST	Section / Area code	Units	TAT days(working)	Special requirements
CHEMICAL PATHOLOGY				
RAPID TURNAROUND – SEND ONLY 6 ML SERUM SEPARATOR GEL (SST BUFF TOP) BLOOD SAMPLE FOR ALL TESTS UNLESS OTHERWISE STATED. FOR PAEDIATRIC/CHILDREN SEND FULL 2 ML PAEDIATRIC LITHIUM HEPARIN BLOOD SAMPLE				
RENAL PROFILE				
SODIUM	Automated	mmol/L	<1	
POTASSIUM	Automated	mmol/L	<1	
CREATININE	Automated	umol/L	<1	
BONE PROFILE				
CALCIUM (actual NOT adjusted)	Automated	mmol/L	<1	
ALBUMIN	Automated	g/L	<1	
TOTAL PROTEIN	Automated	g/L	<1	
LIVER PROFILE				
ALT	Automated	iu/L	<1	
ALBUMIN	Automated	g/L	<1	
ALP	Automated	iu/L	<1	
BILIRUBIN (TOTAL)	Automated	umol/L	<1	
TOTAL PROTEIN	Automated	g/L	<1	
OTHER AUTOMATED LABORATORY TESTS (EXCLUDING URINE TESTS)				
ACE	Automated	iu/L	<1	SST or CLOTTED

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CHEMICAL PATHOLOGY				
AFP	Automated	ku/L	<1	
ALPHA-1 ANTITRYPSIN	Automated	g/L	2	SST
AMMONIA	Automated	umol/L	1	EDTA-SEND IMMEDIATELY
AMYLASE	Automated	iu/L	<1	
AST	Automated	iu/L	<1	
BICARBONATE	Automated	mmol/L	<1	
BILE ACIDS	Automated	umol/L	<1	SST
BILIRUBIN - DIRECT	Automated	umol/L	<1	
BILIRUBIN - NEONATAL	Automated	umol/L	<1	
CA 125	Automated	ku/L	1	SST
CA19-9	Automated	ku/L	1	SST
CARBAMAZEPINE	Automated	mg/L	<1	Collect trough level
CEA	Automated	ug/L	1	SST
CHLORIDE	Automated	mmol/L	<1	
CHOLESTEROL	Automated	mmol/L	<1	
CK (creatine kinase)	Automated	iu/L	<1	
CORTISOL (PLASMA)	Automated	nmol/L	1	SST
C-REACTIVE PROTEIN (CRP)	Automated	mg/L	<1	
DIGOXIN	Automated	nmol/L	<1	COLLECT AT LEAST 6 HOURS POST DOSE
ETHANOL (alcohol)	Automated	mg/100ml	7	FLUORIDE/OXALATE
FERRITIN	Automated	ug/L	<1	
FOLATE (PLASMA)	Automated	ug/L	<1	
FREE T3	Automated	pmol/L	<1	
FREE T4	Automated	pmol/L	<1	

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CHEMICAL PATHOLOGY				
FSH	Automated	iu/L	<1	
GAMMA GT	Automated	iu/L	<1	
GLUCOSE	Automated	mmol/L	<1	FLUORIDE OXALATE
HAPTOGLOBIN	Automated	g/L	<1	SST
hCG	Automated	iu/L	<1	
HDL CHOLESTEROL	Automated	mmol/L	<1	
IRON	Automated	umol/L	<1	
LDH	Automated	iu/L	<1	
LH	Automated	iu/L	<1	
LITHIUM	Automated	mmol/L	<1	SST or CLOTTED. Collect at least 10 hrs post dose
MAGNESIUM	Automated	mmol/L	<1	
METHOTREXATE	Automated	umol/L	4 hours	SST
OESTRADIOL	Automated	pmol/L	<1	
OSMOLALITY- SERUM/PLASMA	Automated	mOsm/KgH2O	<1	
PARACETAMOL	Automated	mg/L	<1	
PHENOBARBITONE	Automated	mg/L	<1	collect trough level
PHENYTOIN	Automated	mg/L	<1	collect trough level
PHOSPHATE	Automated	mmol/L	<1	
PROGESTERONE	Automated	mmol/L	<1	
PROLACTIN	Automated	mu/L	<1	
PSA	Automated	ug/L	<1	
PTH	Automated	pmol/L	2	LI/HEP - SEND TO LAB WITHIN 8 HOURS
SALICYLATE	Automated	mg/L	<1	
SHBG	Automated	nmol/L	1	SST

DEPARTMENT/TEST	Section / Area code	Units	TAT days(working)	Special requirements
CHEMICAL PATHOLOGY				
TESTOSTERONE	Automated	nmol/L	<1	SST
THEOPHYLLINE	Automated	mg/L	<1	collect trough level
TRANSFERIN	Automated	g/L	<1	
TRIGLYCERIDES	Automated	mmol/L	<1	
TROPONIN - I	Automated	ng/L	<1	SST (routine requests) OR BD Rapid Serum tube (Emergency Department Low risk chest pain pathway <u>ONLY</u>)
TSH	Automated	mu/L	<1	
URATE (uric acid)	Automated	umol/L	<1	
UREA (nitrogen)	Automated	mmol/l	<1	
VALPROATE	Automated	mg/L	<1	collect trough level
VITAMIN B 12	Automated	ng/L	<1	
VITAMIN D, 25-OH VITAMIN D (25-OH-CHOLECALCIFEROL)	Automated (routine method)	nmol/L	<1	SST
GENERAL BIOCHEMISTRY TESTS (including urine tests)				
17 OH PROGESTERONE - BLOOD SPOT	Chromatography	nmol/L	11	GUTHRIE CARD
17 OH PROGESTERONE – SERUM	Chromatography	nmol/L	5	SST OR HEPARIN
5 –HIAA	Chromatography	umol/24 hours	5	24h URINE ONLY – PRESERVED WITH GLACIAL ACETIC ACID
ACTH	Special Biochem	ng/l	2	EDTA PLASMA TO BE RECEIVED IN LAB TO BE SEPARATED AND FROZEN WITHIN 24 HOURS
ACYL CARNITINES (BLOOD SPOT)	Chromatography	N/A	5	GUTHRIE CARD (from Li Hep plasma
ALBUMIN (URINE)	Automated	mg/L	1	RANDOM URINE
ALDOSTERONE		pmol/L	5	EDTA IF RENIN ALSO REQUIRED

DEPARTMENT/TEST	Section / Area code	Units	TAT days(working)	Special requirements
CHEMICAL PATHOLOGY				
	Special Biochem			SST OK IF ALDO REQUEST ONLY
ALK PHOS ISO ENZYMES	Special Biochem	qualitative	10	SST
ALPHA-1 AT PHENOTYPE	Special Biochem	qualitative	10	SST
AMINO ACIDS (CSF)	Chromatography	umol/L	5	CSF
AMINO ACIDS (PLASMA)	Chromatography	umol/L	5	LI/HEP or SST
AMINO ACIDS (URINE) – FOR CYSTINURIA ONLY	Chromatography	umol/mmol creat	5	RANDOM URINE
ANDROSTENEDIONE (SERUM)	Chromatography	nmol/L	5	SST
C-PEPTIDE	Special Biochem	pmol/L	5	SST OR LI/HEP - SEND TO LAB WITHIN 2 HOURS
CAERULOPLASMIN	Automated	mg/L	2	SST
CALCITONIN	Special Biochem	ng/L	2	FASTING A.M. PLAIN SAMPLE / SST / Li HEP
CALCIUM (URINE)	Automated	mmol/spec mmol/spec mmol/mmol crea	1	24h PREFERRED, CHILDREN RANDOM
CARBOXYHAEMOGLOBIN	Critical Care Lab	%	1	Whole blood Lithium Heparin – Send to Main Lab.
CHOLINESTERASE - PHENOTYPE	Send Away		10	SST or CLOTTED
CITRATE (URINE)	Automated	mmol/spec	6	24h URINE COLLECTION
CITRATE (RANDOM URINE)	Automated	mmol/mmol creat	6	RANDOM URINE
CORTISOL (BLOOD SPOT)	Special Biochem	nmol/L	10	GUTHRIE CARD
CORTISOL (SALIVA)	Special Biochem	nmol/L	10	SALIVA
CORTISOL (URINE)	Special Biochem	nmol/spec	5	24h URINE COLLECTION
CREATININE CLEARANCE	Automated	mL/min	1	24h URINE COLLECTION AND SST
CREATININE (URINE)	Automated	mmol/L	1	URINE
CREATININE (FLUID)	Automated	umol/L	1	24h URINE COLLECTION

DEPARTMENT/TEST	Section / Area code	Units	TAT days(working)	Special requirements
CHEMICAL PATHOLOGY				
CICLOSPORIN	Automated	ug/L	1	EDTA
CYSTINE	Chromatography	umol/mmol creat	10	URINE
DHEA-SULPHATE	Chromatography	umol/L	5	SST
DRUG SCREEN	Toxicology		7	RANDOM URINE
ELF test (enhanced liver fibrosis)	Special Biochem	None		SST / SERUM <u>ONLY</u> REQUIRES HA, P3NP & TIMP ANALYSIS
ERYTHROPOIETIN (EPO)	Special Biochem	IU/L	2	SST
FAECAL ELASTASE	Special Biochem	ug E1/g stool	5	RANDOM FAECES
FAECAL IMMUNOCHEMICAL TESTING (FIT)	Special Biochem	ug Hb /g Stool	11	FIT sample Collection KIT
GROWTH HORMONE (SERUM)	Special Biochem	ug /L	2	SST
HBA1c	Special Biochem	mmol/mol	2	EDTA - PLEASE ENSURE YOU SEND A SEPARATE SAMPLE
Homocysteine	Special Biochem	umol/l	5	Lithium heparin plasma or EDTA plasma. Patients must be fasting and the sample separated and frozen at -20°C within 30 minutes of collection.
HAEM PIGMENTS	Automated	Abs Unit	4 hours	
HMMA & HVA (neuroblastoma screen in children)	Chromatography	umol/mmol creat	5	URINE
HYALURONIC ACID	Special Biochem	ug/L	5	SST <u>ONLY</u>
HYDROXYBUTYRATE	Toxicology	mmol/L	12	CLOTTED
IGF-1	Special Biochem	nmol/L	2	SST

DEPARTMENT/TEST	Section / Area code	Units	TAT days(working)	Special requirements
CHEMICAL PATHOLOGY				
INSULIN	Special Biochem	mu/L	5	SST - SEND TO LAB WITHIN 2 HOURS
LACTATE (BLOOD)	Critical Care Lab	mmol/L	1	Lithium heparin or SST – SEND TO LAB WITHIN 10 MINUTES of venesection.
LACTATE (CSF)	Critical Care Lab	mmol/L	1	Plain sample only (no anticoagulant) - SEND TO LAB WITHIN 10 MINUTES of venesection
MAGNESIUM (URINE)	Automated	mmol/L	1	24 HR URINE COLLECTION: Bottle preserved with 20mL 6M HCl.
METANEPHRINES - URINE (Normetanephrine, Metanephrine and 3-Methoxytyramine)	Chromatography	umol/24 hr or umol/mmol creatinine	5	24h URINE COLLECTION IN ACETIC ACID (Adults) or RANDOM URINE (Children, for phaeochromocytoma screen only)
METHAEMALBUMIN	Automated		2	LI/HEP
METHAEMOGLOBIN	Critical Care lab	%	2	Whole blood Lithium Heparin – Send to Main Lab
MICROSCOPY (FAECAL, FAT GLOBULES, PAEDIATRIC)	Automated		3	FRESH FAECES
NT-ProBNP	Special Biochem	ng/L	2	MUST BE Lithium Heparin Plasma
OCCULT BLOOD,	Automated	pos / neg	2	SAMPLES FROM 3 CONSECUTIVE DAYS, <5DAYS OLD
OCCULT BLOOD, HAEMOSCREEN CARDS	Automated	pos / neg	2	SAMPLES FROM 3 CONSECUTIVE DAYS, <14DAYS OLD
ORGANIC ACIDS (URINE)	Chromatography		5	RANDOM URINE, FRESH
OSMOLALITY - URINE	Automated	mosmol/kg (H2O)	1	RANDOM URINE
OXALATE (TIMED URINE)	Automated	mmol/24h	6	24h URINE COLLECTION
OXALATE (RANDOM URINE)	Automated	mmol/mmol creat	6	RANDOM URINE
P3NP (Intact N-terminal propeptide of type III collagen)	Special Biochem	ug/L	5	SST ONLY

DEPARTMENT/TEST	Section / Area code	Units	TAT days(working)	Special requirements
CHEMICAL PATHOLOGY				
pH (FAECES)	Chromatography	pH units	5	A MINIMUM 1g OF FAECES.W HICH MUST REACH THE LABORATORY AND BE HANDED DIRECTLY TO A MEMBER OF STAFF WITHIN 1 HOUR OF COLLECTION.
pH (URINE)	Chromatography	pH units	1	FRESH SAMPLE REQUIRED
PHENYLALANINE (BLOODSPOT)	Chromatography	µmol/L	2	MONITORING KNOWN CASES OF PHENYLKETONURIA ONLY
PLASMA METANEPHRINES	Chromatography	pmol/L	5	Send immediately. Samples to be separated and frozen within 30 minutes of collection.
PORPHOBILINOGEN	Automated	qualitative	1	RANDOM URINE, FRESH - PROTECT FROM LIGHT
PORPHYRIN (URINE)	Send Away	nmol/L	1	EARLY MORNING URINE
PROTEIN CREATININE RATIO (URINE)	Automated	g/L		
PROTEIN (URINE)	Automated	mg/L	1	RANDOM URINE
PROTEIN (CSF)	Automated	mg/L	1	CSF IN PLAIN CONTAINER
RENIN	Special Biochem	mU/L	5	EDTA, SEP, FREEZE WITHIN 30 MINS
SOMATOMEDIN C (IGF-1)	Special Biochem	nmol/L	1	SST
STONE ANALYSIS	Special Biochem		10	RENAL CALCULUS
SWEAT CHLORIDE	Trace Elements	mmol/L	4	WESCOR MACRODUCT
TACROLIMUS	Send Away	ug/L	3	
TIMP-1 (Tissue inhibitor of matrix metalloproteinase-1)	Special Biochem	µg/L	5	SST ONLY ONLY available as part of ELF test
THYROGLOBULIN	Special Biochem	ug/L	2	SST
THYROGLOBULIN ANTIBODIES	Special Biochem	KU/L	2	SST

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CHEMICAL PATHOLOGY				
TYROSINE (BLOODSPOT)	Chromatography	µmol/L	3	MONITORING KNOWN CASES OF PHENYLKETONURIA OR TYROSINAEMIA ONLY
VITAMIN A	Chromatography	µmol/L	5	SST
VITAMIN E	Chromatography	µmol/L	5	SST - Vitamin E concentration is affected by plasma lipids. Vitamin E to total cholesterol ratio is a better indicator of status (Adult ref: 1.3-16.2 µmol/mmol)
POINT OF CARE TESTS				
BLOOD GAS (Arterial, Venous or Capillary whole blood)	POCT	N/A	1	Heparinised syringe on blood gas analyser.
CARBOXYHAEMOGLOBIN	POCT	% Saturation	1	Whole blood Lithium Heparin – SEND TO LAB or Heparinised syringe on blood-gas analyser.
LACTATE (BLOOD)	POCT	mmol/L	1	Lithium heparin or SST – SEND TO LAB WITHIN 10 MINUTES of venesection or Heparinised syringe on blood-gas analyser
LACTATE (CSF)	POCT	mmol/L	1	Plain sample only (no anticoagulant) - SEND TO LAB WITHIN 10 MINUTES of venesection
METHAEMOGLOBIN	POCT	%	2	Whole blood Lithium Heparin – SEND TO LAB or Heparinised syringe on blood-gas analyser.
TRACE ELEMENT LABORATORY TESTS				
ALUMINIUM	Trace Elements	µmol/L	5	6ml Greiner Trace Element Na Hep tube (Royal blue top)
ANTIMONY (BLOOD)	Trace Elements		5	Adults: 6ml Greiner Trace Element Na Hep tube (Royal blue top)
				Paed: 2ml Teklab Hep TE tube

DEPARTMENT/TEST	Section / Area code	Units	TAT days(working)	Special requirements
CHEMICAL PATHOLOGY				
ANTIMONY (URINE)	Trace Elements		5	20ml 'Sterilin' Universal container
ARSENIC (BLOOD)	Trace Elements	umol/L	5	Lithium heparin, sodium heparin or EDTA
ARSENIC (URINE)	Trace Elements		5	20ml 'Sterilin' Universal container
BARIUM	Trace Elements	nmol/L	5	6ml Greiner Trace Element Na Hep tube (Royal blue top)
BERYLLIUM (URINE)	Trace Elements	nmol/L	5	20ml 'Sterilin' Universal container
BISMUTH (BLOOD)	Trace Elements	nmol/L	5	Lithium heparin or EDTA
BISMUTH (URINE)	Trace Elements		5	20ml 'Sterilin' Universal container
BORON (PLASMA)	Trace Elements	umol/L	5	6ml Greiner Trace Element Na Hep tube (Royal blue top)
BORON (URINE)	Trace Elements		5	20ml 'Sterilin' Universal container
CADMIUM (BLOOD)	Trace Elements	nmol/L	5	Lithium heparin, sodium heparin or EDTA
CADMIUM (URINE)	Trace Elements		5	20ml 'Sterilin' Universal container
CHROMIUM (BLOOD)	Trace Elements	nmo/L	5	6ml Greiner Trace Element Na Hep tube (Royal blue top)
CHROMIUM (PLASMA)	Trace Elements	nmo/L	5	6ml Greiner Trace Element Na Hep tube (Royal blue top)
CHROMIUM (URINE)	Trace Elements		5	20ml 'Sterilin' Universal container

DEPARTMENT/TEST	Section / Area code	Units	TAT days(working)	Special requirements
CHEMICAL PATHOLOGY				
COBALT (BLOOD)	Trace Elements	nmol/L	5	6ml Greiner Trace Element Na Hep tube (Royal blue top)
COBALT (PLASMA)	Trace Elements	nmol/L	5	6ml Greiner Trace Element Na Hep tube (Royal blue top)
COBALT (URINE)	Trace Elements		5	20ml 'Sterilin' Universal container
COPPER (PLASMA)	Trace Elements	umol/L	4	Adults: 6ml Greiner Trace Element Na Hep tube (Royal blue top)
				Paed: 2ml Teklab Hep TE tube
COPPER (URINE)	Trace Elements	umol/24hr	5	24 hour collection in a 2.5 litre container with no preservative added.
GOLD (PLASMA)	Trace Elements	umol/L	5	6ml Greiner Trace Element Na Hep tube (Royal blue top)
GOLD (URINE)	Trace Elements		5	20ml 'Sterilin' Universal container
IODINE (URINE)	Trace Elements	umol/L	5	20ml 'Sterilin' Universal container
IRON (URINE)	Trace Elements	umol/24 hr	5	24 hour collection in a 2.5 litre container with no preservative added.
LEAD (BLOOD)	Trace Elements	umol/L	5	Lithium heparin, sodium heparin or EDTA
LEAD (URINE)	Trace Elements	nmol/mmol creatinine	5	20ml 'Sterilin' Universal container
MANGANESE (BLOOD)	Trace Elements	nmol/L	5	Adults: 6ml Greiner Trace Element Na Hep tube (Royal blue top)
				Paed: 2ml Teklab Hep TE tube

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CHEMICAL PATHOLOGY				
MERCURY (BLOOD)	Trace Elements	nmol/L	5	Lithium heparin, sodium heparin or EDTA
MERCURY (URINE)	Trace Elements	nmol/mmol creatinine	5	20ml 'Sterilin' Universal container
MOLYBDENUM (PLASMA)	Trace Elements	nmo/L	5	2ml Teklab Li Hep Trace Element tube
MOLYBDENUM (BLOOD)	Trace Elements	nmo/L	5	6ml Greiner Trace Element Na Hep tube (Royal blue top)
NICKEL (PLASMA)	Trace Elements	nmol/L	5	6ml Greiner Trace Element Na Hep tube (Royal blue top)
NICKEL (URINE)	Trace Elements		5	20ml 'Sterilin' Universal container
PLATINUM (BLOOD)	Trace Elements	nmol/L	5	Lithium heparin, sodium heparin or EDTA
PLATINUM (URINE)	Trace Elements		5	20ml 'Sterilin' Universal container
RELATIVE EXCHANGABLE COPPER (PLASMA)	Trace Elements	%	4	Adults: 6ml Greiner Trace Element Na Hep tube (Royal blue top) Paed: 2ml Teklab Hep TE tube Send immediately
SELENIUM (PLASMA)	Trace Elements	umol/L	5	Adults:6ml Greiner Trace Element Na Hep tube (Royal blue top) Paed: 2ml Teklab Hep TE tube
SELENIUM (URINE)	Trace Elements		5	20ml 'Sterilin' Universal container
SILVER (BLOOD)	Trace Elements	nmol/L	5	Lithium heparin, sodium heparin or EDTA

DEPARTMENT/TEST	Section / Area code	Units	TAT days(working)	Special requirements
CHEMICAL PATHOLOGY				
SILVER (URINE)	Trace Elements		5	20ml 'Sterilin' Universal container
STRONTIUM (PLASMA)	Trace Elements	umol/L	5	6ml Greiner Trace Element Na Hep tube (Royal blue top)
THALLIUM (BLOOD)	Trace Elements	nmol/L	5	Lithium heparin, sodium heparin or EDTA
THALLIUM (URINE)	Trace Elements		5	20ml 'Sterilin' Universal container
TIN (PLASMA)	Trace Elements	umol/L	5	6ml Greiner Trace Element Na Hep tube (Royal blue top)
TIN (URINE)	Trace Elements		5	20ml 'Sterilin' Universal container
TITANIUM (PLASMA)	Trace Elements	nmol/L	5	6ml Greiner Trace Element Na Hep tube (Royal blue top)
TITANIUM (URINE)	Trace Elements		5	20ml 'Sterilin' Universal container
VANADIUM (URINE)	Trace Elements	nmol/L	5	20ml 'Sterilin' Universal container
URANIUM (URINE)	Trace Elements	pmol/L	5	20ml 'Sterilin' Universal container
ZINC (PLASMA)	Trace Elements	umol/l	4	Adults: 6ml Greiner Trace Element Na Hep tube (Royal blue top)
				Paed: 2ml Teklab Hep TE tube
TOXIC METALS SCREEN (BLOOD)	Trace Elements		2	6ml Greiner Trace Element Na Hep tube (Royal blue top)
TOXIC METALS SCREEN (URINE)	Trace Elements		2	20ml 'Sterilin' Universal container



DEPARTMENT/TEST	Section / Area code	Units	TAT days(working)	Special requirements
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CHEMICAL PATHOLOGY

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DEPARTMENT/TEST	Units	TAT days(working)	Special requirements	Lab sample storage time
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HAEMATOTOLOGY

ESR	mm/1st hour	<1	2mL EDTA. Please ensure maximum fill	36-48 hours
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FULL BLOOD COUNT – INCLUDING:		<1	EDTA	36-48 hours
HAEMOGLOBIN	g/L			
WBC - WHITE CELL COUNT	x10 ⁹ /L			
RBC - RED CELL COUNT	x10 ¹² /L			
PLATELETS	x10 ⁹ /L			
PCV	L/L			
MCV	fl			
MCH	pg			
MCHC	g/L			
NEUTROPHILS	x10 ⁹ /L			
LYMPHOCYTES	x10 ⁹ /L			
EOSINOPHILS	x10 ⁹ /L			
BASOPHILS	x10 ⁹ /L			
MONOCYTES	x10 ⁹ /L			



DEPARTMENT/TEST	Section / Area code	Units	TAT days(working)	Special requirements
CHEMICAL PATHOLOGY				
BLOOD FILM				1 week
G6PD SCREEN		Normal/deficient	2	EDTA 3 days
PYRUVATE KINASE		Normal/deficient	30	Sent away to KingsPath

OSMOTIC FRAGILITY	g/L	2	By appointment only 2 x Lithium Heparin	
IM SCREEN	pos/neg	1	EDTA	36-48 hours
MALARIAL SCREEN	pos/neg	<1	EDTA	36-48 hours
ABSOLUTE RETICULOCYTES	x10 ⁹ /L	<1	EDTA	36-48 hours
SICKLE SCREEN	pos/neg	<1	EDTA	3 days
CSF CYTOSPIN	Cells present/absent	<1	CSF	1 week
Haemoglobinopathy screen		3	EDTA	3 days
SOLUBLE TRANSFERIN RECEPTOR	nmol/L	30	EDTA	1 month
HAEMOSTASIS (1 x 2.7 ml citrate (blue top) bottle required unless otherwise indicated)				
HEPARIN (ANTI-Xa ASSAY) for monitoring LMW Heparin Anti Xa assay for Rivaroxaban Anti Xa assay for Apixaban Anti Xa assay for Edoxaban	See report	2	Deliver straight to lab	1 day
Dilute Thrombin Time assay for Dabigatran				
D-DIMER ASSAY	ug/L	<1		
FACTOR X ASSAY	u/dL	30	Needs to be delivered directly to the coagulation laboratory within 30 minutes of venesection	Stored for up to 6 months in -70oC Freezer
FACTOR XI ASSAY	u/dL	30		
FACTOR XII ASSAY	u/dL	30		
FACTOR II ASSAY	u/dL	30		
FACTOR V ASSAY	u/dL	30		
FACTOR VII ASSAY	u/dL	30		
FACTOR VIII ASSAY	u/dL	7		

FACTOR VIII INHIBITOR	Bethesda	30	Needs to be delivered directly to the coagulation laboratory within 30 minutes of venesection	Stored for up to 6 months in -70oC Freezer
FACTOR IX ASSAY	u/dL	30		
FACTOR XIII SCREEN		30	2 x 2.7ml citrate	
HEPARIN (APTR)	Ratio	<1		1 day
ACTIVATED PARTIAL THROMBOPLASTIN RATIO (APTR)	ratio	<1		1 day
INR - INTERNATIONAL NORMALISED RATIO	ratio	<1		1 day
LUPUS ANTICOAGULANT	Pos/neg	2	2 x 2.7 ml citrate	1 day
WARFARIN (INR)	Ratio	<1		1 day
THROMBOPHILLIA SCREEN must be authorised by Haematology medic Includes; Clotting screen, APCR, Protein C &S, Antithrombin, Thrombin Time	See individual tests	30	1 x EDTA, 4 x citrate Needs to be delivered directly to the coagulation laboratory within 30 minutes of venesection	Stored for up to 6 months in -70oC Freezer



ANTITHROMBIN	IU/dL	30	1 x citrate Needs to be delivered directly to the coagulation laboratory within 30 minutes of venesection	Stored for up to 6 months in -70oC Freezer
PROTEIN C	IU/dL	30	1 x citrate Needs to be delivered directly to the coagulation laboratory within 30 minutes of venesection	Stored for up to 6 months in -70oC Freezer
PROTEIN S	IU/dL	30	1 x citrate Needs to be delivered directly to the coagulation laboratory within 30 minutes of venesection	Stored for up to 6 months in -70oC Freezer
THROMBIN TIME	Ratio	30	1 x citrate	Stored for up to 6 months in -70oC Freezer
THROMBOELASTOGRAPH (TEG)		1	2 x citrate Needs to be delivered directly to the coagulation laboratory within 30 minutes of venesection	Stored for up to 6 months in -70oC Freezer

<p>VON WILLEBRAND SCREEN Includes; clotting screen, Factor VIII, VWF Ag, CBA & RiCof if indicated</p>	<p>See individual tests</p>	<p>30</p>	<p>4 x citrate Needs to be delivered directly to the coagulation laboratory within 30 minutes of venesection</p>	<p>Stored for up to 6 months in -70oC Freezer</p>
<p>VON WILLEBRAND ANTIGEN</p>	<p>IU/dL</p>	<p>30</p>	<p>1 x citrate Needs to be delivered directly to the coagulation laboratory within 30 minutes of venesection</p>	<p>Stored for up to 6 months in -70oC Freezer</p>
<p>COLLAGEN BINDING ASSAY (CBA)</p>	<p>IU/dL</p>	<p>30</p>	<p>1 x citrate Needs to be delivered directly to the coagulation laboratory within 30 minutes of venesection</p>	<p>Stored for up to 6 months in -70oC Freezer</p>
<p>RISTOCETIN CO-FACTOR ASSAY (RICOFA)</p>	<p>IU/dL</p>	<p>30</p>	<p>1 x citrate Needs to be delivered directly to the coagulation laboratory within 30 minutes of venesection</p>	<p>Stored for up to 6 months in -70oC Freezer</p>

PFA-100	seconds	1	2 x citrate Needs to be delivered directly to the coagulation laboratory within 30 minutes of venesection	Stored for up to 6 months in -70oC Freezer
Platelet Aggregation Screen		1	Must be by prior arrangement with laboratory 4xcitrate samples must be delivered straight to lab	
BLOOD TRANSFUSION	Units	TAT days(working)	Special requirements	
ANTIBODY SCREEN (AUTOMATED)		1	6mL EDTA	10 days
BLOOD GROUP (AUTOMATED)		1	6mL EDTA	10 days
AUTOMATED GROUP & SCREEN		1	6mL EDTA	10 days
FMH	ml	3 or 6 ml EDTA TUBE		
GROUP AND DIRECT ANTIGLOBULIN TEST (DAT)		1	Cord sample: 6mL EDTA Neonatal sample: 0.5mL	10 days
CROSS MATCH		Based on clinical need. If atypical antibodies requires 1-2 working days	6mL EDTA To be received in advance of blood requirement complying with BCSH sample validity guidelines	10 days
DIRECT ANTIGLOBULIN TEST (DAT)		1	6mL EDTA	10 days
Foetal Maternal Haemorrhage Estimation (FMH)		2	6mL EDTA	10 days

INVESTIGATION OF TRANSFUSION REACTIONS		Variable	See Transfusion Record for details To be sent upon discussion with laboratory ASAP after suspected reaction	10 days
ANTI-A/ANTI-B TITRES		2	6mL EDTA	10 days
ANTENATAL ANTIBODY TITRE OR QUANTITATION		10	6mL EDTA	Referred
ANTIBODY INVESTIGATION & EXTENDED PHENOTYPING		1	6mL EDTA	10 days testing carried out if antibody screen is positive
CELL FREE FOETAL DNA TESTING		16	6ml EDTA	Referred
ALL TESTS LISTED BELOW MUST BE AUTHORISED BY A HAEMATOLOGY MEDIC				
HEPARIN-INDUCED THROMBOCYTOPENIA (HIT) SCREEN		1	6mL Plain clotted	10 days
HLA ANTIBODY SCREEN		13	10mL Plain clotted	Referred
HLA CLASS 1 TYPING FOR PLATELET REACTIVENESS		13	2 x 6mL EDTA 10mL Plain clotted	Referred
PLATELET ANTIBODIES (AUTO OR ALLO)		10	3 x 6mL EDTA 10mL Plain clotted If drug-related, a sample of drug is required	Referred

FOETAL/NEONATAL ALLO-IMMUNE THROMBOCYTOPENIA		10	Maternal: 6mL EDTA 10mL Plain clotted Paternal: 6mL EDTA Neonatal: 1mL EDTA	Referred
NEONATAL ALLO-IMMUNE NEUTROPENIA		30	Maternal: 6mL EDTA 10mL Plain clotted Paternal: 6mL EDTA Neonatal: 1mL EDTA	Referred
NEUTROPHIL/GRANULOCYTE ANTIBODIES		30	10mL Plain clotted	Referred
DONATH LANDSTEINER		10	6mL Plain clotted plus 6mL EDTA To be arranged with Lab for transport at 37°C. Must arrive within 30 minutes of venesection at 37°C	
HERIDATRY SPHEROCYTOSIS (EMA BINDING)		7	3ml EDTA To be sent mon-wed only with required blood film	Referred

DEPARTMENT/TEST	Units	TAT days(working)	Special requirements
IMMUNOLOGY			
6 ML SERUM SEPARATOR GEL (SST BUFF TOP) BLOOD SAMPLE FOR ALL TESTS UNLESS OTHERWISE STATED			
ACETYL CHOLINE RECEPTOR ANTIBODY	nmol/L	20	Sent away if results are borderline
ADRENAL ANTIBODIES	pos/neg	15	
ACLA (ANTI CARDIOLIPIN ABS)	u/mL	10	B2GP1 reflex tested if pos
ALLERGEN SPECIFIC IGE (RAST)	kUa/L	5	
ANA (see CONNECTIVE TISSUE ANA SCREEN)			
ANCA (ANTINEUTROPHIL CYTOPLASMIC ANTIBODY)	pos/neg	5	
ANTI COLLAGEN TYPE 2 (send away)	pos/neg	20	
ANTI CHOLINESTERASE (send away)	pos/neg	20	
AMYLOID –A (send away)	pos/neg	20	
ANTI C1Q (send away)	pos/neg	20	
ANTI-GLUTAMIC DECARBOXYLASE	U/mL	20	
ANTI-IGA (send away)	pos/neg	20	
ASPERGILLUS PRECIPITINS	mg/L	10	
AVIAN PRECIPITINS	mg/L	10	
BENCE JONES PROTEIN	present/absent	10	10 ML URINE (MSU)
BETA 2 MICROGLOBULIN	mg/L	5	
BETA 2 GLYCOPROTEIN	u/mL	15	
C1 ESTERASE INHIBITOR (ANTIGENIC)	g/L	10	
C1 ESTERASE INHIBITOR (FUNCTIONAL)	%	20	SAMPLE NEEDS FREEZING WITHIN 6 HOURS
C3 NEPHRITIC FACTOR (send away)	pos/neg	20	Only sent away for testing if C4 is normal range and C3 is below normal
CALPROTECTIN	ug/g	15	FAECAL SAMPLE
CARDIAC MUSCLE ANTIBODY (send away)	pos/neg	20	
CARTILAGE AUTOANTIBODY (send away)	pos/neg	20	
CENTROMERE ANTIBODIES	pos/neg	5	
CCP ANTIBODY	u/mL	5	

DEPARTMENT/TEST	Units	TAT days(working)	Special requirements
IMMUNOLOGY			
COMPLEMENT C3/C4	g/L	5	
SPECIALIST COMPLEMENT COMPONENTS (Send away)		20	SAMPLE NEEDS FREEZING WITHIN 6 HOURS
COMPLEMENT PATHWAY FUNCTION CH50	%	20	SAMPLE NEEDS FREEZING WITHIN 6 HOURS
ALTERNATIVE COMPLEMENT PATHWAY AP50	%	20	SAMPLE NEEDS FREEZING WITHIN 6 HOURS
ALTERNATIVE COMPLEMENT PATHWAY FACTOR H	mg/L	20	
CONNECTIVE TISSUE ANA SCREEN	pos/neg	5	
COMPONENT RESOLVED DIAGNOSIS	interpretive	25	SPECIALIST REQUEST, IMM CONSULTANTS ONLY
CRYOGLOBULIN	pos.neg	10	MUST BE KEPT AT 37C PRIOR TO SEP'N
DNA ANTIBODIES	IU/mL	5	
ENA ANTIBODY SCREEN	pos/neg	5	
ENA ANTIBODY PROFILE	pos/neg	5	REFLEX TEST
ENA EXTENDED SCREEN	pos/neg	15	REFLEX TEST
ENDOMYSIAL ANTIBODIES	pos/neg	15	
FARMERS LUNG PRECIPITINS	mg/L	10	
FREE LIGHT CHAINS/LIGHT CHAIN RATIO	mg/l	20	
GANGLIOSIDE AUTO ANTIBODY	pos/neg	20	
GASTRIC PARIETAL CELL AUTOANTIBODY	pos/neg	10	
GLOMERULAR BASEMENT MEMBRANE ANTIBODY	U/mL	5	
HEP2 SCREEN	interpretive	10	
HISTONE AUTOANTIBODY	U/mL	20	
HIB FUNCTIONAL ANTIBODYS	mg/L	15	
IMMUNOGLOBULINS + SERUM ELECTROPHORESIS	g/L	5	
IMMUNOGLOGULIN E (TOTAL)	ku/L	5	
IMMUNOGLOBULIN G SUBCLASSES	g/L	20	
IMMUNOGLOBULIN A -LOW CONCENTRATION	g/L	20	
IMMUNOFIXATION	interpretive report	10	REFLEX TEST
INTRINSIC FACTOR ANTIBODIES	U/ml	10	

DEPARTMENT/TEST	Units	TAT days(working)	Special requirements
IMMUNOLOGY			
ISLET CELL ANTIBODIES	pos/neg	10	
LIVER AUTOANTIBODY SCREEN	pos/neg	5	
MAST CELL TRYPTASE	u/ml	10	2 samples req'd. 1st at event, 2 nd 24hrs post event
MITOCHONDRIAL (M2) ANTIBODIES	u/ml	10	
MYELOPEROXIDASE (MPO) ANTIBODIES	u/ml	5	
MUSCLE SPECIFIC KINASE AUTOANTIBODY (send away)	pos/neg	20	
MYELIN ASSOCIATED GLYCOPROTEIN (send away)	BTU	20	
MYOSITIS	Pos/neg	20	
NMDA	pos/neg	20	SEND AWAY
NUCLEOSOME AUTOANTIBODY	U/mL	20	REFLEX TEST
OLIGOCLONAL BANDS	interpretive result	10	Paired serum/CSF sample required
OVARIAN AUTOANTIBODY	pos/neg	20	
PARATHYROID AUTOANTIBODY (send away)	pos/neg	20	
PEMPHIGOID/PEMPHIGUS (SKIN) ANTIBODIES	pos/neg	10	
PNEUMOCOCCAL (functional antibodies)	mg/ml	15	
PREVNAR SEROTYPES		20	SEND AWAY
PROTEINASE 3 (PR3) ANTIBODIES	u/ml	5	
PURKINJE CELL AUTOANTIBODY (Hu,Yo)	pos/neg	15	
PARANEOPLASTIC AUTOANTIBODIES	pos/neg	25	
RHEUMATOID FACTOR QUANTITATION	iu/mL	5	
SCANNED MONOCLONAL COMPONENT	g/L	5	Total protein essential
SCLERODERMA	Pos/neg	20	
SKELETAL MUSCLE ANTIBODIES	pos/neg		10
TETANUS ANTIBODIES	iu/ml	10	
THYROID PEROXIDASE ANTIBODIES	u/ml	5	



DEPARTMENT/TEST	Units	TAT days(working)	Special requirements
IMMUNOLOGY			
TISSUE TRANSGLUTAMINASE ANTIBODIES IgA	u/ml	5	
TISSUE TRANSGLUTAMINASE ANTIBODIES IgG	u/ml	5	
VGCC ANTIBODIES	pmol/L	20	SEND AWAY
VGKC ANTIBODIES	pmol/L	20	SEND AWAY

DEPARTMENT/TEST	Units	TAT days(working)	Special requirements
FLOW CYTOMETRY			
LEUKAEMIA/LYMPHOMA SCREEN	interpretive report	5	EDTA 4.5 mL or Bone Marrow, <72 hrs old Monday – Friday 12:00 pm
Lymphocyte Subsets (T, B and NK Subsets)	Interpretive comment	10	EDTA 4.5 ml, <72 hrs old Monday – Friday 12:00 pm
Neutrophil Oxidative Burst	Interpretive comment	5	Lithium Heparin 3ml <48 hrs old Monday – Wednesday By appointment only
PNH Screen	Interpretive comment	5	EDTA 4.5 ml, <72 hrs old Monday – Friday 12:00 pm
Neutrophil Phagocytosis	Interpretive comment	5	Lithium Heparin 3ml <48 hrs old Monday – Wednesday By appointment only
T cell receptor (TCR) repertoire (TCR V β)		4	EDTA 4.5 ml, <72 hrs old Monday – Friday 12:00 pm
Memory B cell subsets (CVID)	% B memory Subsets	10	EDTA 4.5 ml, <72 hrs old Monday – Friday 12:00 pm
Memory T cell Subsets	% T memory Subsets	10	EDTA 4.5 ml, <72 hrs old Monday – Friday 12:00 pm
Hairy Cell Leukaemia Screen	interpretive report	5	EDTA 4.5 ml, <72 hrs old Monday – Friday 12:00 pm
T Cell Subsets (CD4 count)	% & Abs count	5	EDTA 4.5, <72 hrs old Send FBC result. Monday – Friday 12:00 pm
Therapeutic Antibody Evaluation Rituximab (Rituxan) (CD20)	B cells % & Abs Count	5	EDTA 4.5, <72 hrs old Monday – Friday 12:00 pm

DEPARTMENT/TEST	Units	TAT days(working)	Special requirements
MOLECULAR PATHOLOGY			
FOR PAEDIATRIC PATIENTS SEND AS MUCH SAMPLE (IN EDTA) AS AVAILABLE, UP TO RECOMMENDED ADULT VOLUMES WHERE POSSIBLE AS DETAILED BELOW			
ACTIONABLE SOLID ORGAN PANEL	INTERPRETIVE COMMENT	21	FFPE
BCR-ABL TYROSINE KINASE DOMAIN MUTATION	PRESENCE/ABSENCE	14*	CONTACT LABORATORY
BCR-ABL QUANTIFICATION	BCR-ABL / ABL RATIO BCR-ABL /ABL IS corrected value	14*	PB: 12ML EDTA BM: 2 ML EDTA (TO BE RECEIVED WITHIN 24 HRS OF COLLECTION)
BRAF V600E	% MUTANT	14*	PB: 6ML EDTA BM: 2 ML EDTA Histological samples
BRAF V600K	% MUTANT	14*	PB: 6ML EDTA BM: 2 ML EDTA Histological samples
CHIMERISM POST TRANSPLANT	% DONOR CONTRIBUTION	14*	PB: 6ML EDTA BM: 2 ML EDTA
DPYD GENOTYPING	PRESENCE/ABSENCE	5	PB: 6ML EDTA
EGFR HOTSPOT MUTATION ANALYSIS	PRESENCE/ABSENCE	14*	Histological samples (With tumour density assessment)
FACTOR V LEIDEN	POSITIVE / NEGATIVE	14	PB: 6ML EDTA
HAEMOCHROMATOSIS GENOTYPE (HFE)	INTERPRETIVE REPORT	14*	PB: 6ML EDTA
HLA B27 (MOLECULAR CONFIRMATION)	POSITIVE / NEGATIVE	14	PB: 6ML EDTA
HLA B57:01	POSITIVE / NEGATIVE	14*	PB: 6ML EDTA
HLA DISEASE ASSOCIATION - NARCOLEPSY, COELIAC DISEASE	N/A	14	PB: 6ML EDTA

DEPARTMENT/TEST	Units	TAT days(working)	Special requirements
MOLECULAR PATHOLOGY			
FOR PAEDIATRIC PATIENTS SEND AS MUCH SAMPLE (IN EDTA) AS AVAILABLE, UP TO RECOMMENDED ADULT VOLUMES WHERE POSSIBLE AS DETAILED BELOW			
HLA DISEASE ASSOCIATION - BECHETS, BIRD SHOT CHORIORETINOPATHY	N/A	14	PB: 6ML EDTA, SEND TO TOOTING
IGHV	INTERPRETIVE COMMENT	14	PB/FFPE
JAK2 V617F MUTATION	% MUTANT	14*	PB: 6ML EDTA
MGMT METHYLATION ANALYSIS	METHYLATED / UNMETHYLATED	14*	H&E STAINED SLIDE WITH THE HIGHEST DENSITY OF TUMOUR CELLS IDENTIFIED. 6 × 10µm UNSTAINED SECTIONS. PB: 6ML EDTA – AS NORMAL CONTROL
MICROSATELLITE INSTABILITY	STABLE/UNSTABLE	14	PB- 6ml EDTA BM-2ml EDTA
MLH1 (MOLECULAR)	METHYLATED / UNMETHYLATED	14	6x unstained slides with accompanying H&E stained section
MPN PANEL	EXTERNAL REPORT	14*	PB: 6ML EDTA
MYD88 MUTATION	% MUTANT	14*	PB: 6ML EDTA BM: 2 ML EDTA Histological samples
MYELOID GENE PANEL	EXTERNAL REPORT	14*	PB: 6ML EDTA
PROTHROMBIN FACTOR II MUTATION	POSITIVE / NEGATIVE	14	PB: 6ML EDTA
T & B CELL CLONALITY STUDIES	INTERPRETIVE REPORT	21*	VARIOUS (PLEASE CONTACT LABORATORY)

- Test turnaround times defined by National Test directory at NHSE