

PAEDIATRIC INVESTIGATIONS HANDBOOK	Policy Register No: 15011 Status: Public
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Developed in response to:	Best Practice Guidelines for paediatric staff using pathology services
CQC Fundamental Standards:	17

Consulted With:	Post/Committee/Group:	Date:
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INDEX

- 1.0 Purpose**
- 2.0 Equality and Diversity**
- 3.0 Scope**
- 4.0 Laboratories**
- 5.0 Specimen Transport**
- 6.0 Results**
- 7.0 Phlebotomy Services**
- 8.0 Hormone Stimulation Tests**
- 9.0 Request Forms and Labelling**
- 10.0 Paediatric Samples**
- 11.0 Pain Relief**
- 12.0 Infection Prevention**
- 13.0 Haematology Department**
- 14.0 Microbiology Department**
- 15.0 Biochemistry**
- 16.0 Immunology**
- 17.0 Staff and Training**
- 18.0 Incident Reporting**
- 19.0 Appendices**

Appendix A - Sarstedt Blood Collection System
Appendix B - Dynamic function tests request form

1.0 Purpose

- 1.1 This guideline is compiled to provide paediatric and laboratory staff basic information of requirements when routine investigations are requested. The aim is to reduce the numbers of errors happening due to the usage of wrong bottles, insufficient samples etc.
- 1.2 This handbook will be issued to all junior doctors during induction to provide information and minimise clinical risk. This should reduce the number of phone calls that doctors have to make to the laboratories.

2.0 Equality and Diversity

- 2.1 Mid Essex Hospital Services NHS Trust is committed to the provision of a service that is fair, accessible and meets the needs of all individuals.

3.0 Scope

- 3.1 This guideline applies to all children attending Phoenix Ward in the age groups from 10 days up to 16 years .This is for the information of all professional, administrative, bank, agency and locum who may be involved in the care of children who get admitted and need investigations.
- 3.2 This handbook gives valid information for staff at the Paediatric OPD doing phlebotomy clinics as a quick reference guide.

4.0 Laboratories

- 4.1 All laboratories are now based on the Broomfield site. Medical staff who requests and performs investigations should try to ensure that the appropriate specimens reach the right destination without undue delay to help them with their clinical decision-making.

5.0 Specimen transport

- 5.1 During daytime working hours regular blood specimens can be sent by the vacuum Shute system located in between Phoenix 1 & 2 and neonatal unit. Certain specimens like blood cultures, CSF samples, urine microscopy & culture should be sent through the porters who can be contacted via extension 6000.
- 5.2 Specialist tests – hormonal assays, PCR tests, chromosome and micro array sampling, Nasopharyngeal aspirate for RSV which need to be processed at tertiary hospitals are sent away
- 5.3 It is important that all staff understand that good communication is essential throughout each stage of this process as there are significant opportunities for error which in turn can lead to distressed patients and carers, unnecessary complaints and retesting.
- 5.4 Urgent samples such as ammonia or insulin should be taken in the appropriate bottles and sent immediately without delay.

6.0 Results

- 6.1 All results are available on the computer. A username and password will be required to access this .Staff will be notified by the lab staff if the test results are abnormal. It is the duty of the attending clinician to follow up results of urgent investigations so that patient safety is not compromised.

7.0 Phlebotomy Services

There are phlebotomy services in Broomfield hospitals, St. Peters in Maldon and WJC hospital in Braintree.

- 7.1 **Working times** for phlebotomy services are as follows.

Location	Hours
Broomfield Hospital	Monday - Friday 07:00 - 18:00
St Peters Hospital	Monday - Friday 08:00 - 15:45
St Michael's Hospital	Monday - Thursday 08:00 - 16:00 Friday 08:00 - 15:35

7.2 Specialist Paediatric Phlebotomy Service

- 7.2.1 These clinics occur twice a month – Monday mornings first week between 9 am to 1pm and Thursday afternoons second week between 2pm - 4.45 pm every month.
- 7.2.2 Ring Paediatric OPD on 3074/3075 or ask parents to ring and pre book clinic appointments. For difficult children (difficult access, needle phobic, autistic children) book appointment with **Dr Rachel Thomas** via paediatric OPD.

8.0 Hormone stimulation tests

- 8.1 **Ineke**, nurse in paediatric OPD does LHRH tests, OGTTs, short synacthen tests at least two a month, which can also be booked in advance. **Janice Bohannan**, senior nurse in Phoenix ward also does the hormone stimulation tests but make sure to liaise with the staff beforehand and prescribe medications appropriately. This is to avoid unnecessary waiting times and delay. Please use form in Appendix 1.
- 8.2 In certain instances, consultants may admit patients with special problems who may need planned admissions and investigations. Some children might need special tests – water deprivation test, GH stimulation tests, LHRH tests etc. Please print out the current protocol for these specialist tests and use form found in Appendix 1. Also, ensure that the blood bottles are kept, labels and the steps of the procedure in hand to obtain blood tests at the appropriate time as delay may alter the test result which may lead to a repeat test which may not be child friendly and may not be acceptable.

9.0 Request Forms and Labelling

- 9.1 There are two methods for requesting tests .One is the printed labels, which can be used in the wards where computer facilities are and the other method is completion

of the lab request forms, which are kept in OPD/ward. Never forget to sign the blood bottle with cross matching sample as it will not be processed otherwise.

9.2 The following information should be included in the request forms with a legible handwriting. This must match Blood Sciences Sample Acceptance Policy document no: 17021.

- Patient's surname and first name
- Hospital number
- Date of birth
- Patient location
- Consultant
- Requesting doctor's name and bleep
- Clinical details
- Tests required
- Patient's status e.g. fasting where appropriate
- Time in serial sampling for dynamic function test and drugs
- Drug dosage details

9.3 Please write adequate clinical details on the forms, as it is invaluable to the laboratory staff that can then perform the correct diagnostic tests.

10.0 Paediatric Samples

10.1 Samples should be mixed by gentle inversion to avoid clotting and be delivered promptly to the laboratory.

10.2 Blood sample size: Minimum volume for each tests are stated in the table below. However, it is preferential to take more than the minimum needed if possible. **Make sure that the labels are printed for the right person. Just pause for a moment and check if there is any error in the information that is provided as the sample will be discarded and the test has to be repeated.**

10.3 Order of draw

Tube Colour Code (top)	Tube Type Anticoagulant
White	Plain
Brown	Serum
Pale green	Sodium Citrate
Orange	Lithium Heparin -Plasma
Red	EDTA

- 10.4 **Be particularly careful not to contaminate the blood in one type of sample tube with the blood from another type of tube e.g. never tip blood from one type of tube into another as this can seriously affect some blood results.**
- 10.5 **When doing multiple tests eg; FBC, U/E etc. Blood must be taken for U/E first before collecting further bloods in the FBC bottle. This will avoid falsely elevated Potassium which can occur with contamination with EDTA**
- 10.6 Please refer to the blood culture guideline for the correct technique of obtaining blood for blood culture.

11.0 Pain Relief

- 11.1 Ametop is most widely used these days than Emla. Occasionally anaesthetic cold spray is also used.

12.0 Infection Prevention

- 12.1 Wear gloves during procedures during where staff are likely to come in contact with body fluids. Please note that the department adopts a universal precaution policy and that all biological samples should be treated as potentially hazardous. Make sure all containers are securely capped and placed in self-sealing packages. Request forms should not come into contact with the sample at any stage.

13.0 Haematology Department

13.1 Contacts

Name	Number
<i>For Clinical Haematology problems contact:</i>	
Dr Waseem Nagi Consultant Haematologist	Ext. 4017
Consultant Haematologist's secretary	Ext. 4160
<i>For queries and interpretation regarding test contact:</i>	
Nick Sheppard, Blood Transfusion Lead	Ext. 4140
<i>General</i>	
Results	Ext. 4159
Transfusion	Ext. 4140
Coagulation	Ext. 4137

- 13.1.2 If there is a query regarding an Immunology test, contact the Immunology Department before taking the sample.
- 13.1.3 Out of hours and over the weekend bleep the appropriate lab staff on bleep 2231 to enquire about the test results and to inform them CSF samples are being sent which need to be processed without delay

13.2 Working Times

13.2.1 Routine working times for haematology for receipt of non-urgent samples is from 9am to 8pm. After this, there is an on call service. Prior to midnight haematology technician, do not have to be paged prior to sending samples. However, after midnight they should be bleeped before sending sample. The exception to this is when a cross-match is required, in which case the requesting physician must inform the on-call Haematology BMS.

13.2.2 On Saturday morning, there are skeleton staffs from 9am – 1 pm. After this, there is an on-call service.

13.2.3 During Sunday and Bank Holidays there will only be on-call service Please contact haematology BMS on call out of hours for group & DAT if it is urgent Routine cases can wait till morning.

13.3 Haematology blood test requirement Information

Test	Volume/Bottle	Comments
FBC	0.5 ml red	Shake the bottle while obtaining the sample particularly when using heel prick method
Paul Bunnell or Monospot	0.5 ml red	
ESR	1.3ml Red Top	1 bottle (1.3ml) enough for both FBC & ESR
HBA1C	0.5ml red	
Osmotic fragility	0.5ml in red bottle	To be done after 3 months of age Samples obtained soon after blood transfusion give inaccurate results
Pyruvate kinase	0.5ml in red	
G6PD	0.5ml ml red	
Hb electrophoreses	1ml in red	
Coagulation S protein C Protein S D- dimer 1.4 ml green	1.4 ml green	Make sure to fill up to the line marked on the tube –not more not less as it would not be processed. This is applicable for newborn & children up to 16 years.
Protein C Protein S D-dimer	1.4ml green	
CD4/CD8 ratio	2 ml red	To monitor immune system To look for treatment response in HIV
Biotinidase	1 ml Orange	

Test	Volume/Bottle	Comments
Antiphospholipid	2 ml White top	Both to be written on Haematology form
Syndrome Anticardiolipin Antibodies	2 ml White top	Done in Immunology on a weekly basis
Lupus Anticoagulant	2 paediatric coagulation bottles filled to the line (1.4 mls each – green top)	Done in Haematology & takes 8 to 10 days for the results
Paul Bunnell or Monospot	0.5 ml red (EDTA)	

13.4 Blood Products Test Requirement Information

Test	Volume/ Bottle	Comments
Cross match Coombs Test	red	If transfusion required need, blood from the mother for ABO group and antibody screen until child is 4 months of age. The collector must sign on a different cross matching form as well as on the bottle. Contact Transfusion Department on 4140 Four points of identification must be written on the bottle i.e.: Christian name, Surname, DOB, and Hosp No.

13.5 Extra care should be taken in writing patient details on the cross matching form. If any of these details are incomplete or incorrect, the sample will be discarded.

14.0 Microbiology Department

14.1 Contacts

Name	Number
Dr Wael Elamin, Consultant Microbiologist	Extn 4757
For technical queries contact:	
Marcus Milner, Lead Biomedical Scientist	Ext. 6313
General	
Microbiology	Ext. 5019/ 5025/6103 bleep 2084

14.2 Working Times

Routine working hours 9am to 5pm during weekdays Weekends – 9 am to 12.30 pm on Saturdays

There is an on call service outside of these hours

14.3 Microbiology Test Requirement Information

Test	Volume/Bottle	Comments
Blood Culture	2- 3 ml	Use an Paediatric bottle only (yellow cap) The current status of a blood culture is available on the Pathology Results System All positive Blood Cultures will be reported to the requesting clinician as soon as the result becomes available.
CSF Microscopy & Culture	3 White Top Universal Container labelled 1-3.	Do not use 60ml pots Samples 1 & 3 should be sent to Microbiology Sample 2 to biochemistry
Urine Microscopy & Culture	10 ml plain universal (White cap)	For less than 10mls use white, cap universal. If there is delay in transport, please store in the fridge.
Urine Microscopy & Culture	20 ml boric acid (Red cap)	Please ensure that the volume of urine is up to the mark .If not, bacteria would be killed which would result in false negative results
Faeces (Stool) for: Bacterial Culture Viral Culture Rotavirus/Adenovirus Clostridium difficile Toxin	Blue Top Universal Container (with spoon)	Please send faecal material – samples of diaper, swabs etc. will not be tested Please send at least a broad bean sized amount of faecal material.
Nasopharyngeal Aspirate (NPA) for: RSV Influenza A & B Para influenza 1,2,3 Adenovirus	Universal container	Expel the sample from the NG tube into the container before sending NPA for RSV, Influenza A & B Tested in-house. Should reach before 3PM to get the results the same day – Please contact lab and inform .Sent Monday to Friday only (excluding weekends and bank holidays)
Viral Culture	Wooden Shafted Swabs only sent in Virus Transport Medium	Virus Cultures are kept for up to 2 weeks before being reported as negative.

Test	Volume/Bottl	Comments
HIV antibodies	1.0 ml white	Clotted blood required Further sample required if positive Evidence of consent required on request form
HIV PCR for maternal transmission	1.0ml red	Concurrent sample from mum and baby after delivery Larger sample from mum Must reach laboratory within 3 hours
PCR <i>Neisseria meningitides/ Streptococcus pneumoniae</i>	0.5 ml red	Must reach laboratory within 3 hours
PCR Herpes	0.5 ml red	Must reach laboratory within 3 hours
Toxoplasmosis	1.0 ml white top	Clotted blood required
EBV viral titers	1.0 ml white top	Clotted blood required
EBV /Cytomegalovirus titre	1.0 ml white top	Clotted blood required
Varicella titre	1.0 ml white top	Clotted blood required
ASO titre/Anti DNase titre	1.0 ml white top	Clotted blood required
Screen for: CMV Rubella Parvovirus Toxoplasma	1 ml in white top	Clotted blood required
Hepatitis Screen – Hep A, IgM, Hep B HbSAg, Hep C, antibodies, EBV and CMV	2 ml white top	Clotted blood required
Antibiotic Assay: Gentamicin Amikacin Vancomycin Sodium valproate	0.5ml in orange or white top (Orange tube) preferred	Antibiotics are processed within Biochemistry

15.0 Biochemistry

15.1 Contacts

The following staff in Biochemistry can be contacted for any queries and detailed interpretation of any unusual results.

Name	Number
Dr Emily Leach Consultant Clinical Biochemist	Extn:5282
Analytical	Extn : 6499
General	
Biochemistry Results	Ext. 4159/6499 bleep 2146

15.2 Working Times

- 15.2.1 Normal working hours for the receipt of non-urgent biochemistry is from 9AM to 8PM. After this, there is an on call service. Before midnight biochemist do not have to be paged before sending sample. However, after midnight biochemist should be bleeped before sending sample.
- 15.2.2 On Saturday morning, there are skeleton staffs from 9am to 12.30pm. After this time, there is on call service.
- 15.2.3 For urgent sample, bleep the biochemist during on call hours. Page # 6555 2146 or this can be done via switchboard. Please write the bleep number so that the results can be relayed once ready.
- 15.2.4 If a test needs to be done urgently, the doctors or ward staff should deliver it in person which would prevent the loss of samples.

15.3 Biochemistry Test Requirement Information

Test	Volume/Bottle	Comments
Glucose	0.5 ml yellow	Fluoride
U/E	0.5 ml brown	
LFT	0.5 ml brown	
Bone profile	0.5 ml brown	
TFT Screen/ On treatment	1.0 ml brown	
U/E, LFT, Bone profile	1.0 ml brown	
U/E, LFT, CRP	1.0 ml brown	
CRP	0.5 ml brown	
Cholesterol/ Lipid Profile	1 ml brown	

Test	Volume/Bo	Comments
CK	0.5ml brown	
Serum Iron/ Ferritin level/ TIBC	1 ml brown	
LDH	0.5ml brown	
Generic Drug levels	Brown bottle 1.0ml for each drug	
Blood Gas	Do not send this to laboratory	Tested in labour ward or NNU or ITU
CSF Lactate	Can be done on blood gas	
Blood Lactate	Can be done on blood gas	No longer available in lab
Plasma Amino acid Chromatography	1.0 ml orange	
Blood Ammonia	0.5ml orange	Inform laboratory prior to obtaining sample. Send on ice and bleep porter as this needs to be hand delivered. Send another empty orange bottle along with the specimens a control.
White cell enzymes	5 ml orange	Please note that blood transfusion within 4 weeks interferes with the result. Done in developmental delay & storage disorders.

15.3.1 Faecal Calprotectin

This test is useful to investigate inflammatory bowel disease. **Please use a standard stool specimen bottle for this.** Appendix A identifies the specimen bottles to use

Gal-1-PUT For Galactosaemia	0.5 ml orange	Should not have had blood transfusion in the preceding 8 weeks Tested at Guy's Hospital Orange tube can be accepted
Alpha 1 Antitrypsin	1.0 ml orange	
Carnitine & Free/Acylcarnitine	1.0 ml Orange tube / Guthrie Card	

Very long chain fatty acids (VLCFA)	1.0 ml Red	
B12/Folate	1.0 ml brown	
Iron/TIBC and Ferritin	1.0 ml brown	
Alpha-feto protein (AFP)	1.0 ml brown	
PTH	2-3 ml red	Should be sent immediately & lab notified.

15.4 Biochemistry Urine test requirement Information

Test	Volume/Bottle	Comments
Urine Protein creatinine ratio	5ml in Plain white top	Please collect early morning urine
24 hour urine protein	24 hour Plain Urine bottle	Bottle to be obtained from lab
Urine Electrolytes	5ml in Plain white top	
Urine Calcium creatinine ratio	5ml in Plain white top	
Urine osmolality	5ml in Plain white top	
Urine amino acid chromatography	2 ml urine in plain bottle	As fresh as possible
Urine mucopolysaccharides	2 ml urine in plain bottle	As fresh as possible
Urine organic acid	2 ml urine in plain bottle	As fresh as possible
Toxicology screen	5 ml Urine in Plain bottle	Detailed drug history is essential
Urine catecholamine	Early morning urine specimen should be collected in a plain universal container	Please send to biochemistry lab & please notify lab staff
Urine GAG	5-10 ml fresh specimen	Useful screening tool in developmental delay &

15.5 Biochemistry specialist test requirement Information

Test	Volume/Bottle	Comments
Immunoglobulin	1.0 ml brown	Clotted blood required

Insulin levels	1 ml white	Write glucose level on request form if known. Must be received within 1 hour of venepuncture
IgE	0.5ml white	
Test	Volume/Bottle	Comments
Cortisol	1 ml brown bottle	Record time of taking blood
Special Endocrine Tests		
Insulin/C-peptide levels Insulin	2ml white	Very unstable Needs to be in the laboratory in 1hour
Renin	2 full bottles of Red	Send immediately to the lab Needs to be in the laboratory in 1hour
ACTH	1 full Red	Needs to be in the laboratory in 15 minutes
Anti Mullerian Hormone	1 white top	

15.6 Stool for occult blood – not available

16.0 Immunology

Immunology	
Dr Sarah Linstead , consultant clinical Immunologist	Ext. 4895 mob:07623999006
Immunology Laboratory	Ext. 4139

16.1 Use Haematology Request Form

Test	Volume/Bottle	Comments
Coeliac antibodies tTG IgA Endomysial antibody	1.0 ml white top	Clotted blood required. Use Haematology request form Always do immunoglobulins assay to ensure normal IgA level.
Complements C3, C4	1.0 ml white top	Clotted blood required. Must be received in lab within 2 hours after collection

Rheumatoid Factor/ANA/DNA/ENA	5 ml white top	Minimum volume, supply more if possible
Thyroid antibodies	1.0 ml white top	Clotted blood required
Insulin Antibodies and pancreatic islet cell antibodies Endoplasmic nuclear antibodies	1.0 ml white top	Clotted blood required
C1 Esterase Deficiency	1.0 white top	Clotted blood required. MUST BE RECEIVED at the lab WITHIN 1 HOUR OF COLLECTION.

Test	Volume/Bottle	Comments
Mast cell tryptase level	2ml white top	<p>Samples to be sent to immunology department as has to be separated within 3 hours of sample collection</p> <p>Send samples to haematology during out of hours</p> <p>1st Sample taken immediately following the event</p> <p>2nd 1 hour post</p> <p>3rd 4-6 hours post</p> <p>4th 24 hours post</p>
RAST tests	0.25ml white top bottle for each RAST item	

16.2 Commonly Used Paediatric Blood Profiles (Groups of Tests)

Test	Volume/Bottle	Comments
Biochemistry: U/E, CRP, LFT, Bone profile including phosphate	1.0 ml Brown	Do not contaminate with EDTA (FBC) bottle or will get high K levels
Growth Screen (Growing blood in Neonatal unit) Done on Mondays		
FBC with reticulocyte count	0.5 ml red	
U/E, LFT, Bone profile Ca/Phosp, AlkPhosphatase	1.0 ml Brown	
Annual Cystic Fibrosis Screen		
FBC, ESR	1.0 ml red	
Hb A1C	0.5ml red	
Clotting profile	1.4 ml green (Paed)	Fill exactly up to the top mark
U/E Creatinine, Bone Profile, Phosp LFT,CRP	1ml Brown	
Glucose	0.5ml of yellow	
Vitamin A & E Vitamin D	1 ml brown	Needs to be light protected

Test	Volume/Bottle	Comments
Immunoglobulin, IgE, RAST Aspergillus precipitins, Aspergillus specific IgE	1 ml white top biochemistry	
Precipitins+ Pseudo	1ml white bottle (Microbiology)	
Annual Type I Diabetic Screen		
HbA1c	1.0 ml red	

U/E, CRP, LFT, Bone profile, TFT, Random	2 ml brown	
Total IgA, coeliac screen	1mL white top	
Urine micro albumin	Plain, additive free bottle.	In girls at least 1 week after a period.
Assessment of Short Stature		
FBC	0.5ml	Haematology form Make sure lab gets sufficient for ESR
FBC & ESR	1.3 ml new red bottle	
U/E, LFT, Prolactin, cortisol, TFTs	2 ml brown	
Total IgA and TG antibodies and celiac	1mL brown	Biochemistry form
	1.0 ml white top	Haematology form
Karyotype (all)	2mL Orange	Mon-Wed only before 3 pm
Assessment of Obesity (not GOOS): FASTING BLOODS		
FBC	0.5 ml red	
U/E, LFT, CRP, Lipids	2 ml Brown	
Glucose	2ml Oxalate (Yellow)	
Insulin	2 ml white	Sample must reach lab within 15min of collection
PCO Bloods (LH, FSH, Testosterone)	2ml Brown	

Test	Volume/Bottle	Comments
If adrenarche signs: Testosterone, 17OHP, Androstenedione, DHEA	2ml Brown	

+/- Prader-Willi screen: Karyotype DNA	2ml Orange 1.3 ml Red (EDTA) bottle	Use the purple genetic form
Basic Metabolic Screen		
U/E, LFT, Plasma amino acids	2 ml Brown	Biochemistry form Contact lab if required urgently
Glucose	2ml Yellow	
Ammonia	1ml Orange	Inform laboratory prior to obtaining sample. Send on ice and bleep porters as this needs to be hand delivered. Send another empty orange bottle along with the specimens a control.
Lactate	Blood gas	
Pyruvate Not sure this is basic metabolic blood.	Contact lab before taking blood-	Specimens for pyruvate must be received in the lab within 15min of collection
Venous/capillary blood gas	Measure Chloride, bicarbonate (anion gap)	Done in the neonatal unit
Urine amino and organic acids	Fresh urine specimen 5-10mls minimum	
Coeliac Disease		
Coeliac Antibodies(TTG)	1ml white tube	Please also send a sample to check for IgA deficiency 1ml in white top bottle.
HLA DQ2 & DQ8	1.3ml Red 2 bottles preferable	To be considered if tTG more than 10 times the upper limit of normal-after discussing with Gastro team
Prolonged jaundice screen		
FBC, blood group & DAT	2.0 ml red EDTA	
UE, LFT, split Bilirubin, Thyroid Function test	2ml Brown	

Urine for reducing substances	Plain bottle	No longer available
Urine for C&S		

Test	Volume/Bottle	Comments
Genetic Tests - Genetic Laboratory in GOS		
Chromosomes – Cytogenetic (Purple Form)	1.5ml Orange	If the genetic request is a routine DNA then can be received at any time If the request is for microarray or karyotyping ideally need to send the e sample before Thursday lunchtime. Rapid testing can be sent up until Friday morning but the lab must be contacted first
DNA analysis – Molecular Genetics (Purple Form) e.g. : Fragile-X, Cystic Fibrosis	1.5 ml red	
Down's syndrome Diagnosis –FISH	2ml Orange 1.3 ml red	Needs to be sent by courier in neonatal period. It must be delivered in person to the Biochemistry lab with proper instructions with completely filled requisition forms

16.3 FISH test results will be ready within 24 hours but can take a week

16.3.1 Karyotyping: discontinued as a routine genetic investigation Instead, a combination of metaphase screening as a first line test followed by chromosomal microarray done or cases where there is suspected sex chromosome abnormality, Turners syndrome (including females with short stature and males with undescended testes or hypospadias it at present.

16.3.2 Rapid testing by FISH (SRY/conX) as at present where appropriate e.g.; neonatal referrals with ambiguous genitalia, 30-metaphase count with X & Y chromosome screen: - any XY chromosome structural changes or aneuploidy will prompt a full karyotype workup.

16.3.3 Micro array – this test will be performed on patients in the above referral categories who are typically dysmorphic and or LD/DD or are negative for

the above tests and where a case is made for more detailed genotypic examination by microarray by the referring clinician will take 3 months (this is the time quoted by the genetics lab)

16.3.4 Blood samples are sent to North East Regional genetics service laboratories at Great Ormond Street Hospital

PLEASE MAKE SURE TO PROVIDE CLINICAL INFORMATION ON THE REQUISITION FORM

16.4 **Tests for Atypical Mycobacterial Lymphadenitis:**

16.3.1 Biopsy/aspirate for TB culture,

16.3.2 AFB microscopy and/or PCR Swabs NOT appropriate.

16.3.3 Baseline bloods – FBC with differential, UE, CRP, blood cultures

16.3.4 Quantiferon is not used in our hospital but a different IGRA test named as T-spot.

Requirements are:

- Adults and children 10 years old and over: 6mL
- Children 2 to 9 years old: 4mL of clotted blood (white Bottle)
- Children up to 2 years old: 2mL

16.3.5 Sent Monday to Friday only. Turnaround is 48-72 hours (not including weekends and bank holidays). To be sent for Dr Wael Elamin's attention

17.0 **Staffing and Training**






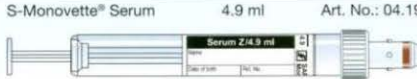




















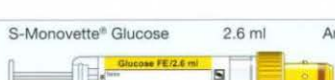



17.1 All paediatric staff must ensure that their knowledge and skills are up-to-date in order to complete their portfolio for appraisal.

18.0 **Incident Reporting**

18.1 All incidents that result in any type of harm to the patient must be reported on Datix risk event reporting system. Children's Services will regularly review these and learn from them, considering whether services can be improved in light of the risk events that have occurred.

Mid Essex Hospital Services NHS Trust

SARSTEDT-Blood Collection System - S-Monovette®

Colour Code	Tube Type	NEW	S-Monovette®	
 Light Blue	Sodium Citrate	 Green	S-Monovette® Coagulation 2.9 ml Art. No.: 04.1902.001	 Coagulation
 Red	Serum	 Neutral	S-Monovette® Serum 4.9 ml Art. No.: 04.1934.001	 Serum
 Gold	SST™ II	 Brown	S-Monovette® Serum Gel 4.9 ml Art. No.: 04.1935.001	 Serum-Gel
 Rust	SST™ II	 Brown	S-Monovette® Serum Gel 4.9 ml Art. No.: 04.1935.001	 Serum-Gel
 Dark Green	PST™ II	 Orange	S-Monovette® Li-Heparin 4.9 ml Art. No.: 04.1936.001	 Lithium Heparin
 Lavender	EDTA	 Red	S-Monovette® EDTA K 3.4 ml Art. No.: 04.1914.001	 EDTA K
 Light Lavender	EDTA	 Red	S-Monovette® EDTA K 3.4 ml Art. No.: 04.1914.001	 EDTA K
 Pink	Cross Match	 Blue	S-Monovette® EDTA 4.9 ml Art. No.: 04.1931.009	 EDTA
 Grey	Fluoride Oxalate	 Yellow	S-Monovette® Glucose 2.6 ml Art. No.: 04.1903.001	 Glucose
 Royal Blue	for Trace Elements	 Orange	S-Monovette® Li-Heparin 7.5 ml Art. No.: 01.1604.400	 Lithium Heparin Trace metal free

Sarstedt AG, Germany



North East Thames Regional Genetics
Service Laboratory

Great Ormond Street Hospital for Children
NHS
With Innovation, Trust

GENETIC TEST REQUEST FORM

SURNAME		FIRST NAME		LAB REF:	
DATE OF BIRTH	GENETIC ID	NHS NUMBER		SAMPLE TYPE	URGENT / ROUTINE
SEX	ETHNIC ORIGIN	HOSPITAL NO		DATE / TIME COLLECTED	DATE / TIME RECEIVED
PATIENT ADDRESS & POSTCODE				REASON FOR REFERRAL Please give clinical details	
GP NAME & ADDRESS		NHS / PRIVATE			
		CCG CODE			
REFERRING CONSULTANT					
ADDRESS FOR REPORT		CONTACT NUMBER			

MOLECULAR GENETIC TEST (EDTA):
Specify disease / gene test(s) and provide any relevant family history:

DNA STORAGE ONLY
 DIAGNOSTIC TEST
 CARRIER TEST
 PREDICTIVE TEST
 NIPD

MICROARRAY (EDTA and LITHIUM HEPARIN): Please confirm patient has one of the following:
 Developmental Delay Dysmorphism Multiple congenital abnormalities Epilepsy
Please provide full clinical details including family history above.

MICROARRAY FAMILY FOLLOW UP (EDTA AND LITHIUM HEPARIN)
Please give name and laboratory number of index patient.

Rapid testing (LITHIUM HEPARIN (infants under 3 months) for:

Trisomy 21
 Trisomy 13 Trisomy 18
 Chromosomal sex
Please also select microarray or karyotype.

KARYOTYPING (LITHIUM HEPARIN)
 Mosaicism suspected? please give details.

In submitting the sample the clinician confirms that consent for testing and possible storage has been obtained

INSTRUCTIONS:

The sample tube and referral card must have three matching identifiers to be accepted.
Patient's gender must be indicated on the request form.

BLOOD SAMPLES: Mix samples thoroughly for 2 minutes to prevent clotting

5mls venous blood in plastic EDTA (pink or lavender) bottles (>1ml from neonates)

2mls venous blood in plastic Lithium Heparin (orange or green) bottles (1-2ml from neonates)

Lithium Heparin blood samples must be received in lab within 24 hours (refrigerate overnight at 4°C if necessary).

For free fetal (NIPD) analysis please send 20ml blood (EDTA) – Contact Lab in advance

ANY OTHER SAMPLE e.g. Prenatal, Buccal swab – TELEPHONE FOR ADVICE

Sample must be labelled with:

- Patient's full name (surname and given name)
- Date of birth and NHS number
- Referring Hospital Number
- It is desirable to have the date and time sample was taken and/or location

NOTE: **Samples in glass bottles will not be accepted**
 UNLABELLED Samples will not be accepted
 MISLABELLED Samples will result in delay

Samples coming from outside Great Ormond Street Hospital / Institute of Child Health must be packaged in accordance with **UN PACKING REQUIREMENT PI 650** and clearly labelled 'diagnostic specimen UN3373'

Address to:

Specimen Reception
Level 5, Barclay House
Great Ormond Street Hospital
37 Queen Square
London WC1N 3BH
Tel: 020 7829 8870 Fax: 020 7813 8578

For details of all referral criteria and policies please see our website:

<http://www.labs.gosh.nhs.uk/laboratory-services/genetics>

For Lab Use Only

Patient's Name: _____

DOB: _____

NHS/Hospital Number: _____

Male/Female: Please circle

Requesting Consultant: _____

Requesting ward: _____

Clinical details: _____

Date of Test: _____

For each sample please write the collection time and tick the boxes for the relevant tests:

Glucose	Cortisol	Growth Hormone	17OHP	ACTH	IGF-1	Insulin	TSH/ FT4	FSH/ LH	HCG	Other tests

All Samples must be clearly labelled with at least 3 identifiers, and collection times. Failure to do this may result in samples being rejected!

Sample types:

Glucose	Yellow top
Cortisol, GH, 17-OHP, IGF-1, TFTs, FSH/LH, hCG	Brown top
Insulin	White top (must be sent to the lab immediately)
ACTH	Red top (must be separated within 15 minutes, send to the lab immediately)

All other samples should be sent to the lab when the test is complete.

Date and time of receipt in lab: _____ Lab Number: _____

