

Paediatric Intensive Care Unit

Non-routine Pathology Test Bottles

Staff relevant to:	PICU/CICU medical & nursing staff
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1. Introduction and Who Guideline applies to

Non- routine specialised tests are usually required for patient care in CICU/PICU. This guide has been developed to support staff in the clinical area.

This guide applies to all medical and nursing staff working in UHL CICU/PICU settings, and supports use of the blood sciences handbook, where all the relevant information is kept.

2. Guideline information/procedures

Why it is important to use the right bottle and appropriate volume:

- When printed, most forms state what sample is needed, BUT as there is no paediatric brown top bottle it is important to use the correct alternative.
- Time sensitive samples- the time on the form is when the lab takes as the sample being taken- print the form when the sample is taken
- Patient safety
- Repeating test causes unnecessary distress to patient, and bad hospital experience for patient/family
- Prevent of waste of resources









FREQUENTLY USED BOTTLES & SPECIAL REQUIREMENTS

amiodarone	Serum gel (white)	
Ammonia	Orange (Heparin)	To lab on ice within 1 hour of sampling
Anti-thrombin 3 Place order under haematology 'special test'	Green top Citrate	Pre book test with special haematology, need 24 hrs to prepare reagents. If sample taken sooner/ out of hours lab can prep and store the sample, if discussed with them Hand deliver
BNP	Serum gel (white)	
Carnitine acyl	Lithium Heparin (Orange)	
cortisol	Serum gel (white)	
CK (Creatine Kinase)	Serum gel (white)	
Digoxin,	Serum gel (white)	
Ferritin	Serum gel (white)	
Free fatty acids	Lithium ETDA (Yellow)	To lab within 1 hour
Haptoglobin	Serum gel (white)	Haptoglobin
Heparin assay (Xa)	Green top Citrate	Hand deliver to lab within 2 hours of sampling
HSV PCR	Green swab	Green swab
Immunoglobulins & electrophoresis	Serum gel (white) X 2 bottles	
LDH	Serum gel (white)	
Iron	Serum gel (white)	
Lymphocyte sub sets	EDTA (red)	
Osmolarity (serum)	Serum gel (white)	
procalcitonin	Serum gel (white)	
Renin and aldosterone	EDTA (red)	Take together to lab within 3 hours of sampling
Tacrolimus	EDTA (red)	
Theophylline (for aminophylline)	Serum Gel (white)	
Thyroid function, TSH, Free thyroxine	Serum gel (white)	
Triglycerides	Serum gel (white)	
Troponin	Lithium heparin (Orange)	
Vancomycin, gentamicin	Serum gel (white)	
Vitamin A, D or E	Serum gel (white)	
Vitamin B (thiamine)	EDTA red bottle	On ice & Protect from light (in envelope) to lab within 1 hour
3-hydroxy butyrate	Lithium ETDA (Yellow)	

Blood sciences handbook is frequently updated, and will provide up to date information on special requirements, bottles and test turnaround times, and is available on UHLconnect

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UHL Sample bottles (no paediatric brown bottle available)

Serum	Adult: 10mL Paediatric: 1.2mL	White top monovette containing no gel separator	
Serum Gel	Adult: 4.7mL	Brown top monovette containing separating gel	
Lithium Heparin	Adult: 4.7mL Paediatric: 1.2mL	Orange top monovette containing Heparin anticoagulant	
Fluoride EDTA	Adult: 2.7mL Paediatric: 1.2mL	Yellow top monovette containing fluoride EDTA	
Random Urine:	10mL	Sterile Universal container or fluoride EDTA	
24hour Urine: Plain or acid preserved	N/A	Supplied with collection instructions	
K-EDTA	Adult: 2.7mL Paediatric: 1.2mL	Pink top bottle monovette containing Potassium EDTA anticoagulant	
Citrate	Adult: 4.3mL A&E: 1.8mL Paediatric: 1.4mL	Green top monovette containing Sodium Citrate anticoagulant	
EDTA	2.7mL ONLY	Purple top monovette containing Potassium EDTA anticoagulant	
EDTA "For Blood Transfusion"	Adult: 7.5mL Paediatric: 1.49mL Neonatal: 1.2mL	Blue Top monovette containing Potassium EDTA anticoagulant	

3. Education and Training

None

4. Monitoring Compliance

What will be measured to monitor compliance	How will compliance be monitored	Monitoring Lead	Frequency	Reporting arrangements
Samples in the wrong container those sent from CICU	data from the pathology lab	PICU Consultants	Annually	PICU CPM

5. Supporting references:

- (1) Information about right type of bottle obtained from the chemical pathology lab
- (2) Bottles for Pathology tests (UHL Neonatal Units)
<http://www.library.leicestershospitals.nhs.uk/PAGL/Shared%20Documents/Blood%20Bottles%20for%20Tests%20UHL%20Neonatal%20Guideline.pdf>
- (3) Blood sciences handbook https://uhlconnect.uhl-tr.nhs.uk/file_preview/adbd6d87-0640-4ce4-a5f2-0212f4d51158/b4d1ab8f-63fe-4fd6-a4d8-ce1c5861f16e

6. Key Words

Specialised, EDTA, Fluoride, Lithium Heparin, Citrate, Serum gel, Sample, blood bottles,

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As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.**

CONTACT AND REVIEW DETAILS			
Guideline Lead (Name and Title) Jo Saywell J Vujcikova - Consultant		Executive Lead Chief medical officer	
Details of Changes made during review: <ul style="list-style-type: none">- Inclusion of blood sciences handbook- Highlights importance of using correct alternative as no paediatric brown top bottle- Importance of printing forms when sample is taken- Frequently used bottles & special requirements table reviewed and updated- UHL sample bottles table updated and reformatted- References updated			
Date	Issue Number	Reviewed By	Description Of Changes (If Any)
September 2024	2		Updated and corrected