

## Pathology - Quality Management

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# Pathology Specimen Guide

## PATH.CD.077

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Please also refer to the Pathology User Guide – available on the Intranet or by request from the Laboratory

## Basic Rules

1. Ensure you only deal with one patient at a time
2. Check the expiry date of the tube
3. Do not label bottles before you take the sample
4. Bottles **MUST** be labelled next to the patient
5. Ask patient to confirm their name where possible
6. Take patient details from the wrist band (when present)
7. Sample **MUST** have 3 positive patient identifiers on the container
8. All details on the sample and the request form must match
9. Take EDTA tubes last (to prevent sample contamination (leads to high K<sup>+</sup>))

## Labelling

The Specimen Acceptance Policy for both T&GICFT and MFT Trusts is:

ON THE TUBE	ON THE FORM
Patients full name (surname & forename)	Patients full name (surname & forename)
Date of Birth	Date of Birth / Gender
RMP Number or NHS Number	NHS or RMP Number
Date of Collection	Location of report
	Consultant or GP
	Clinical information
	Name of the person taking the specimen

The only time this does not apply is for GUM Clinic patients or when the identity of the patient is unknown. Also refer to the 'Specimen Acceptance Policy' on the Trust intranet.

Where Lorenzo (Hospital) or tQuest (GP) is used to generate the form much of this information is automatically transmitted

## Labelling for Transfusion

Transfusion has particular requirements over and above other disciplines:

ON THE TUBE	ON THE FORM
Patients full name (surname & forename)	Patients full name (surname & forename)
Date of Birth	Date of Birth / Gender
NHS or RMP Number	NHS or RMP Number
Date & time sample was taken	Location of report
Signature of member of staff	Consultant or GP
Location	Clinical information
	Name of the person taking the specimen

## Lorenzo Barcodes must NOT be placed on Transfusion samples

Also see the 'Blood Transfusion Policy' on the Trust intranet. The requirement for handwriting labels comes from The Blood Safety and Quality Regulations 2005 i.e. it is a legal requirement.

All transfusion samples are regarded as repeatable without exception (see 'Repeatable Samples' page 3)

## **Sending Samples**

### **Blood Sciences**

Label the sample(s) as required, put the sample(s) in the bag, one patient per bag, seal the bag and attach the request form/sticker to the bag/tag (if there are multiple Lorenzo forms these can be placed in the bag).

### **Microbiology**

Because microbiology is booked in here and processed at MRI the requirements for labelling are slightly different:

Label the sample as normal. Only one sample per bag is allowed; request forms must not go in the bag with the sample; attach the form to the bag/tag; if the sample leaks we or MFT will only have to discard one sample but we will have the demographics available to issue a report informing you that the sample leaked.

To ensure samples can be safely and appropriately tested in the laboratory, information including details of foreign travel, symptoms and known or suspected contact with other patients known to have communicable disease is important.

For example, samples likely to contain high risk pathogens [as described by the Advisory Committee for Dangerous Pathogens] are handled at a higher containment level to safeguard both laboratory staff and other downstream workers.

The information is also of benefit to the patient ensuring that appropriate testing is performed to safeguard the patient and benefit their patient journey.

### **Urgent samples**

If the sample is urgent you must telephone the lab and inform them that the sample is urgent please give Patient Name, Date of Birth and NHS number or District Number

## Mislabeled Samples

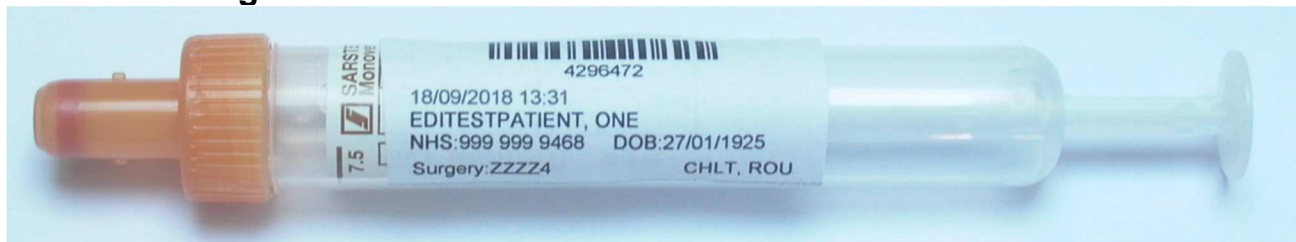
### Why it matters

On an average day the laboratory deals with approximately:

- Samples 2550
- Requests 5400 (a sample can have multiple requests on it)
- Tests 16590 (e.g. a U&E is made up of 6 individual tests)

If even a small proportion of samples are poorly labelled it can have a significant impact on the department taking staff time when they could be doing more useful things.

### Good Labelling



The barcode runs along the length of the tube and the print is clear and dark allowing our analysers to read the barcode, this speeds up our process and minimises the risk of error

### Bad Labelling



Labels that are not running along length of tube or are scratched or have pale print or are not properly adhered to the tube are not acceptable as they will not scan on our analysers (or may even jam). These have to be manually relabelled which takes significant time and introduces a risk of error when transferring demographics etc.

Please only put one label on a tube, multiple labels can make it impossible to read them or fit them in the analyser racks.

### Repeatable Samples

The Department of Laboratory Medicine reserves the right not to analyse any repeatable specimen that it receives that has not been adequately labelled. All inadequately labelled repeatable specimens will be disposed of in accordance with the Trusts Waste Disposal Policy. A clinical incident form will be submitted.

### Non-Repeatable Samples

When a non-repeatable specimen is received and has been found to be inadequately labelled the laboratory will contact the ward/department to inform them of this. It is the responsibility of the Health Care Worker responsible for the specimen to come to Department of Laboratory Medicine and complete an Amendment to Specimen Labelling Form.

## Problem Samples

Please note the following pre-laboratory errors frequently occur but may be avoided by

Correct sample for relevant test.

Correct mixing of blood sample with contents of blood collection tube (minimum of 12 full inversions).



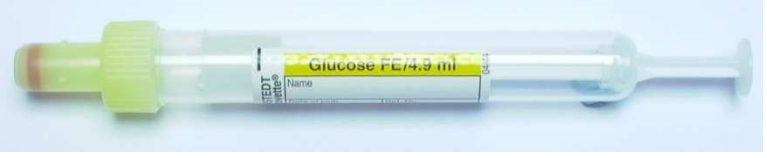




Prompt delivery to the department.

### The most common reasons for pre-analytical factors affecting results are:-

Problem	Common causes	Consequences
Delay in separation	Overnight storage. Delay in transit	Increased K <sup>+</sup> , PO <sub>4</sub> , ALT, LDH. Decreased HCO <sub>3</sub> <sup>-</sup> , (Na <sup>+</sup> occasionally)
Storage	Storing at 4°C	Increased K <sup>+</sup> Decreased HCO <sub>3</sub> <sup>-</sup>
Haemolysis	Expelling blood through needle into tube Over vigorous mixing of specimen Storing specimen in freezer (-20°C) Excessive delay in transit Leaving specimen in hot environment. Difficulties encountered when accessing suitable vein.	Increased K <sup>+</sup> , PO <sub>4</sub> , ALT, LDH
Inappropriate sampling site	Specimen taken from drip arm	Increased drip analyte e.g. glucose, K <sup>+</sup> , Mg <sup>2+</sup> (dilution effect)
Incorrect container or anticoagulant	No enzyme inhibitor, EDTA tube or transferring blood from one tube to another	Low glucose, Increased K <sup>+</sup> , Na <sup>+</sup> , Decreased Ca <sup>2+</sup> , ALP, Mg <sup>2+</sup>
Lipaemia	Specimen taken after a fatty meal.	Decreased Na <sup>+</sup>
Clotting of sample	Inadequate mixing of samples with anticoagulant causing blood to clot	Affects FBC, ESR, Coagulation & other samples






# Container Guide

## Biochemistry

Routine – Adult	
Routine – Paediatric	
Glucose/Alcohol – Adult	
Glucose/Alcohol – Paediatric	
Lithium Heparin – Adult	
Lithium Heparin - Paediatric	
EDTA Red Top – Ammonia	

If you are uncertain about what container to use, please check the Pathology User Guide or contact the lab for advice

## Haematology

<p>EDTA – Adult</p>	
<p>EDTA – Paediatric</p>	
<p>Coagulation – Adult</p>	
<p>Coagulation – Paediatric</p>	
<p>ESR Do not place labels over the clear part of the tube (this is where the ESR is read). Please place it over the existing label. When filled, blood should reach the arrow.</p>	

## Transfusion

<p>Transfusion – Adult</p>	
<p>Transfusion – Paediatric</p>	

If you are uncertain about what container to use, please check the Pathology User Guide or contact the lab for advice

## Microbiology

### Labelling and Packaging

Because microbiology is booked in here and processed at MRI the requirements for labelling are slightly different:

Label the sample as normal. Only one sample per bag is allowed; request forms must not go in the bag with the sample; attach the form to the bag/tag; if the sample leaks we or MFT will only have to discard one sample but we will have the demographics available to issue a report informing you that the sample leaked.

To ensure samples can be safely and appropriately tested in the laboratory, information including details of foreign travel, symptoms and known or suspected contact with other patients known to have communicable disease is important.

For example, samples likely to contain high risk pathogens [as described by the Advisory Committee for Dangerous Pathogens] are handled at a higher containment level to safeguard both laboratory staff and other downstream workers.

The information is also of benefit to the patient ensuring that appropriate testing is performed to safeguard the patient and benefit their patient journey.

### Urgent Samples for Microbiology

Please inform the laboratory at Tameside that an urgent sample is being sent so that they know to look out for it so that it can be sent to MFT as soon as possible and is highlighted to them. Please also let the laboratory at MFT know so that they are aware.

### Bacteriology

#### **Single eSwab (pink top)**

Wound swabs & Genital Swabs: Infection Screen



#### **Wound swabs**

For wound swabs or MRSA screening sites excluding nose and groin/perineum. Please provide a site and clinical information

#### **Genital Swabs: Infection Screen**

This screen will cover all potential pathogens, depending upon clinical information provided, with the exception of *Trichomonas vaginalis*\*

\*Vaginal swabs for trans patients can be requested as “Genital – Other” or as a Wound Swab



### **Sterile Container – Urine**

Urine Samples: Clean Catch Urine, Mid-Stream Urine & Catheter Urines



Please provide clinical information

\*For Mycobacteria culture collect 3 consecutive early morning urine samples in 200mL containers

\*For Schistosoma collect terminal urine portions over a 24hrs in standard urine containers

### **Double Head Swab (red cap)**

CPE Screens – rectal swabs only



The double head red swab should only be used for CPE screening

### **Faeces Pots**

Enteric Samples: C. difficile and Routine Screen



Please provide clinical information including recent travel history

### **Charcoal Amies Swab**

*Trichomonas vaginalis* (TV) Screen



For patients with symptoms of TV, such as frothy discharge. A TV screen may be considered for:

- abnormal vaginal discharge that may be thick, thin or frothy and yellow-green in colour
- producing more discharge than normal, which may also have an unpleasant fishy smell

The use of this swab is an interim measure only; in the future TV requests will be processed by molecular methods alongside Chlamydia and Gonorrhoea.

### Blood Culture Pack – Neonatal



### Blood Culture – Paediatric



### Blood Culture – Adult



## Quantiferon Plus TB

Please read the package insert when using these as there are very specific requirements for how they are taken, stored and transported.



## Virology

### **cobas PCR media – swab**

Viral infection Screen; Chlamydia trachomatis & Neisseria gonorrhoea (NAAT)



Please ensure the correct swab is used for the test requested or the sample cannot be processed. Please note only ONE swab should be returned in the specimen tube.

### **cobas PCR media – urine**

Viral infection Screen; Chlamydia trachomatis & Neisseria gonorrhoea (NAAT)



Urine specimens must be collected in a sterile container and transferred to the Cobas media tube within 24 hours. Fill level must be between the black lines.

### **Viral Transport Media (red cap)**

All other virology



### **Clotted Blood**

For all serology



### **EDTA Anticoagulant**

PCR and Viral load

