LABORATORY MEDICINE

ORGANISATION & STAFF

Laboratory Medicine consists of Biochemistry, Blood Transfusion, Haematology and Coagulation and Point of Care Testing services.

Key Personnel in Departments:	Name	Ext.
Head of Pathology:	Lee Phillips	4039
Blood Transfusion Laboratory Manager:	Anushka Natarajan	5274
Haematology Laboratory Manager:	Robert Stirk	5274
Biochemistry Laboratory Manager:	Matthew Petry	4048
Quality Manager:	Sarah Muncaster	4025
POCT Co-ordinator:	Shaneela Perkins	4050
Anticoagulant Nurse Team:	Nicola McQuaid	4006 / Bleep 1413
Blood Transfusion Nurse Specialists:	Leah Pecson Annie Butterworth	4482 / Bleep 1492

Clinical Staff:	Name
Consultant Haematologist	Dr Louise Gamble
Consultant Haematologist	Dr Effie Grand
Consultant Haematologist	Dr Tracey Parker
Consultant Haematologist	Dr James Milnthorpe
Consultant Haematologist	Dr Lee Grimes
Consultant Haematologist	Dr Alister Smith
Consultant Haematologist	Dr Sally Bugg
Speciality Doctor	Dr Angela Clarke
Haematology Registrar (Rotational)	Rotational
Consultant Chemical Pathologist:	Dr Niki Meston
Consultant Clinical Scientist	Dr Katherine Morris

LOCATION

Laboratory Medicine is situated on the Salisbury District Hospital site North Block, Level 3.

The department is part of the Family and Specialist Services Division.

LABORATORY OPENING HOURS

Laboratory Services	Availability	Contact Details
Laboratory Enquiries (Core Hours)	08.00 – 20.00 (Mon – Fri)	Ext: 4033 (01722 429033)
Out of Hours service	All other times outside of core hours including public holidays	Biochemistry Bleep 1621 Haematology and Transfusion Bleep 1626
Enquiries/Results/Add-on requests Biochemistry and Haematology URGENT SAMPLES	08.00 – 20.00 (Mon – Fri)	Ext: 4033 (01722 429033)
Enquiries/Results/Add on requests Blood Transfusion URGENT SAMPLES	08.00 – 20.00 (Mon – Fri)	Ext. 4022/4123 Please telephone before sending sample
Interpretation and advice Biochemistry		Ext. 5427/4047 For non-urgent GP queries please use Cinapsis.
Interpretation and advice Haematology		Ext. 5197/5421 For non-urgent GP queries please use Cinapsis.
POCT Enquiries	09.00 – 17.30 (Mon – Fri)	Ext. 4050 poc.enquiries@salisbury.nhs.uk

ADD-ON TESTS

Additional tests can be requested by contacting the laboratory (see table above).
Additional guidance can be found in Eolas:
Eolas Medical

REQUESTING WORK

REQUEST FORMS

Request forms, whether relating to routine or emergency work, must be completed in full and signed by a qualified medical officer. Full details, including clinical details, should be given.

VACUTAINER SAMPLE TUBES

The Vacutainer system is used for almost all blood samples. ALWAYS follow the stated order of draw to prevent cross contamination of preservatives affecting analysis.

For more information there is a blood tube guide in the Laboratory Medicine – Specimen Requirements and Guidance Section.
Eolas Medical

Additionally, other types of specimen container are listed in the Laboratory Medicine Test Table Section.

For more specialised blood tests please contact the Laboratory before taking samples as other blood tubes, and/or rapid transfer to the laboratory, may be required.

ACCEPTANCE CRITERIA

The Laboratory will only accept adequately labelled specimens. A specimen will only pass to the processing stage if it meets the acceptability criteria, listed below:

- There is a paired specimen and request form.
- The details on the specimen match the details on the request form.
- **There are adequate points of identification on the specimen and request form*.**
- Specimen integrity is appropriate – haemolysis, lipaemia and / or icterus will have an effect on some of the assays performed in Laboratory Medicine. If the sample integrity is not appropriate for the test requested, the laboratory will inform the requesting source.
- There is a sufficient specimen fill volume or specimen size.
- The date and time of specimen collection is indicated.
- There are no contraindications that will limit test analysis e.g. correct specimen type (urine cannot be used for a serum request).
- The specimen is intact and not leaking – damaged specimen containers risk giving incorrect results due to contamination or incorrect specimen volume.
- The specimen is received in the Laboratory within the correct time frame for analysis – See the Laboratory Medicine – Specimen Requirements and Guidance Section for pre analytical stability.
- The correct specimen preservative/tube has been used for the test required.

If the above requirements are not met, the specimen will be rejected and analysis will not proceed.

***Specimens will be rejected if they are not adequately identifiable.** All specimens and request form must have 3 points of ID as a minimum.
PLEASE NOTE: Blood Transfusion specimens have additional identification requirements – for details see Blood Transfusion section below.

Below are acceptable points of ID

- Surname and First name of the patient (both names together count as one point of ID)
- Date of Birth
- Hospital Number
- NHS number

BLOOD TRANSFUSION ACCEPTANCE CRITERIA

Request forms and samples for blood transfusion tests MUST be labelled with 7 independent identifiers/mandatory information i.e. **FULL Surname, Forename (spelled correctly), DOB**, **Hospital Registration Number or NHS number, Date and Time the sample was taken and a signature of the person taking the sample.**

NB Use of addressograph / pre-printed labels on specimens for blood transfusion work is **NOT ACCEPTABLE** and will result in the rejection of the request.

Blood Transfusion samples **MUST** be taken by competency assessed personnel and the declaration of competency signed and dated on the request form. Please note Students, including Medical Students, are not permitted to take transfusion requests or obtain samples for transfusion.

REJECTING SPECIMENS

If the specimen does not meet the acceptance criteria outlined above, it will be rejected by the laboratory.

For rejected samples, the requesting source will only be telephoned for inpatient, urgent GP and Blood Transfusion requests. All other requesting sources will be informed of sample rejection via the electronic report system and the reason for the rejection will be included.
In all cases the patient and specimen details are entered into the laboratory IT system. This provides the laboratory with a full and accurate record of all specimens received in the laboratory, it is also used to track all specimens received, whether analysed or not.

SAMPLE INTEGRITY

Please note that it is ***not*** recommended that samples for ***Laboratory Medicine*** are refrigerated prior to transportation to the laboratory. This is particularly important for the yellow top SST tubes that are not centrifuged. There are specific storage requirements for all samples, depending on the length of storage and the sample type. To avoid inappropriate storage, specimens for Laboratory Medicine should arrive in the laboratory within 8 hours, otherwise many of the tests will be unsuitable. Samples can remain at room temperature once taken (away from sunlight / radiators etc.), providing that they reach the laboratory within 8 hours.
Please note that some tests performed on Citrate tubes need to reach the laboratory within 4 hours.

Common reasons for rejection:

- **Clotting Screen** – under/over filled and clotted specimens cannot be tested.
- **Haematology** – clotted specimens cannot be processed.
- **Blood Transfusion** – Clotted, grossly haemolysed, icteric and / or Lipaemic specimens cannot be processed.
- **Biochemistry** – Haemolysed / Icteric and Lipaemic samples cannot be analysed for certain tests.
- **Laboratory Medicine** – contaminated samples, for example TPN / drip arm contamination, cannot be tested.

MEASUREMENT UNCERTAINTY

Measurement uncertainty is determined for each measurement procedure in the laboratory. The measurement uncertainty is available to users on request. Please contact the appropriate Laboratory Manager if information on measurement uncertainty is required.
For qualitative tests, factors affecting the final result are considered and steps taken to minimise the effect of any variables to ensure a standardised, consistent approach is maintained.

REFERENCE RANGES

The source of our reference ranges are available upon request from the appropriate Laboratory Manager.

CLINICAL BIOCHEMISTRY

All clinical enquiries can be made via Cinapsis.

DYNAMIC TEST PROTOCOLS

Please liaise with Clinical Biochemist or download from Eolas.

TOTAL PARENTERAL NUTRITION (TPN)

Dr Niki Meston and Consultant Gastroenterologists contribute to the hospital **TPN / Parenteral Nutrition Service** in conjunction with the Nutrition Support Team and Pharmacy. Please refer through the Nutrition Support Team on **ext. 4333.**

THERAPEUTIC DRUG MONITORING (TDM)

Please contact the laboratory if advice on sample timing is required.

CLINICAL HAEMATOLOGY

All clinical enquiries can be made via Cinapsis.

ANTENATAL SCREENING PROGRAMME

The laboratory accepts samples for the antenatal screening programme and performs analysis on those samples for the sickle and thalassaemia programme.

FOQ FORMS

The Family Origin Questionnaire (FOQ) is a locally adapted (and screening programme approved) version of that provided by the SC&T screening programme and completed by the midwife at the antenatal booking appointment.

It is the responsibility of the Obstetric department to train the midwives to complete the necessary information required on the FOQ form.

The midwives must complete the FOQ and collect an FBC sample at the booking appointment which should take place by 10 weeks gestation. A request for a FBC must accompany the FOQ and it must be made clear on the FBC request form that this is a booking specimen.

Satisfactory completion of the FOQ is the responsibility of the midwife. Where information is missing from the FOQ, the FBC will be performed and the specimen retained to await completion of the FOQ. At this point the laboratory will request HPLC and treat the sample as high risk, this is to prevent a delay in testing if the family origins

require. Once information is received from the screening team the information will be updated appropriately.

Where information is missing from the FOQ the laboratory staff will contact the Antenatal screening team by email. The Community midwife or midwifery manager will then be informed that the FOQ has not been completed correctly. In the event that there is no response by the midwife concerned over a prolonged period (>15 days) the laboratory will issue a report stating that the woman has not been appropriately screened due to a failure to send in a completed FOQ. The Antenatal screening team will be informed of this action. They will also be informed if there are any problems with the sample quality or identification which may require a new sample to be taken. The laboratory staff will make contact by email.

The outcome of screening for any individual is also dependent on the accuracy of the information given by the individual when completing the Family Origin Questionnaire (FOQ).

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Errors in patient identification and sampling labelling may lead to ABO incompatible transfusions. Evidence for this is well documented in the annual reports of the SHOT (Serious Hazards of Transfusion). There has been a number of wrong bloods in tube events documented.
As a result recommendations were made for hospitals to move to a zero tolerance policy for the labelling of Blood Transfusion samples and implementation of the Two Sample Rule.

The laboratory follows the BSH guidelines as regards ‘group check’ samples.
The **first sample** can be historical i.e. >7 days old or taken on the same day as the second sample. The **second sample** must be a separate venepuncture event with new patient ID checks performed. Preferably the second sample should be taken by a different member of staff whenever possible.

If a crossmatch is required, the indication code for transfusion must be indicated on the request form and signed by the person authorising the transfusion.

NB Failure to specify the date and time for which blood products are required will result in a Group and Screen **only** being done.

CROSS-MATCHED BLOOD

Red blood cells units that have been cross-matched for patients will be kept for a minimum of 24 hours after the time for which it was required. It will then be withdrawn unless the laboratory is asked to retain it.

If atypical red cell antibodies are detected, please allow a minimum of 48hours for the provision of red cell components.
If further information is required, please contact the Blood Transfusion laboratory on ext. 4022 (core hours) / bleep 1626 (out of hours).

If medical advice is required, please contact the Haematology Consultant on duty via switchboard.

BLOOD COMPONENTS

In the event of clinical evidence of ongoing uncontrolled bleeding please refer to the Massive Transfusion Protocol (MTP), Obstetric Haemorrhage and Paediatric Massive Transfusion Protocol, available on Eolas.

All other requests for fresh frozen plasma, cryoprecipitate, platelets and clotting factor concentrates must be authorised by Haematology Medical Staff, except in the case of paediatric / ICU consultants requesting platelets.

Guidelines for Maximum Surgical Blood Ordering Schedule can be found in the Post Graduate Education Department's "Doctors' Handbook"**.**