



Cellular Pathology Handbook

Contacts:

Basildon Hospital (01268 524900):

Consultant (Clinical Lead): Dr Peter Ozua ext 8219

Consultant: Dr Kingsley Osayi ext 8220

Consultant: Dr Nazar Alsanjari ext 8218

Consultant: Dr Andrew Prodromou ext 3016

Consultant: Dr Victoria Salter ext 1665

Consultant: Dr Uati Oke ext 8216

CTC Consultant: Dr Filomena Medeiros ext 4368

Operations Manager Cellular Pathology: Tomos Saunders ext 8888

Office: General enquiries ext 8212

Southend Hospital (01702 435555):

Consultant: Dr Maryse Sundaresan ext 5634

Consultant: Dr Simon Payne ext 5205

Consultant: Dr Konrad Wolfe ext 5202

Consultant (Clinical lead): Dr Soumadri Sen ext 8952

Operations Manager Cellular Pathology: Tomos Saunders ext 6630

Office: General enquiries ext 5198

General Information

This department provides a diagnostic Histology, including Immuno Histochemistry (IHC), Andrology, Skin Immunofluorescence (non-accredited) & Non-Gynae Cytology Services. We are United Kingdom Accreditation Service (UKAS) accredited and participate in National External Quality Assurance Schemes (NEQAS). For a full list of accredited tests please see UKAS Schedule of Accreditation; pages 17 – 28 > Human Tissues and Fluids – see link below:

https://www.ukas.com/wp-content/uploads/schedule_uploads/00007/7880-Medical-Multiple.pdf

The Histopathology Laboratories are open between 8.30am and 5.00pm Monday to Friday (**except Bank Holidays**). At Basildon Hospital, it is located (along with Non-Gynae Cytology) on Level C just past phlebotomy and the office reception is opposite the Rheumatology clinic rooms. At Southend Hospital Histopathology is located on level 1 of the Tower Block and the Essential Services Laboratory (ESL) is on the 2nd Floor in the pink zone.

Please Note: Samples being delivered requiring a signature by laboratory personnel should be undertaken before 16:45 to allow adequate time for staff to accurately carry-out checks on each specimen prior to receipt into the Department.

Specimens from Theatres and 'urgent' specimens for Histology should be brought directly to the laboratory and handed to a member of staff. Porters may deliver non-urgent Histology from hospital clinics directly to the laboratory or to the Pathology Reception area at the ESL. Non-gynae Cytology can be delivered to the ESL. Regular courier deliveries are made to the Pathology Reception at the ESL. Andrology specimens are received by appointment only (see Andrology section for further details).

All specimens should be sent to the department as soon as possible. A fully completed and legible request form must accompany all specimens. Clinical details are essential. **Failure to do so will delay the result, as the specimens will be returned to source for resolution.**

Specimens should only be marked URGENT if there is a clinical need or the results are required within 24-48 hours. Specimens from target patients should also be marked clearly in red with a large T.

Request Forms

ICE requesting should be used in the first instance.

When not available, please use request form from the following links:

Histology Request form - **PF-HIS-LF-111**



Cytology (Non-Gynae) Request Form - **PF-CYT-LF-60**

Andrology Request Form - **PF-HIS-LF-96**

When completing please bear in mind the following:

3 patient identifiers must be provided on the request form in order to comply with pathology specimen reception acceptance policy, which are:

- First name/second name
- DOB
- NHS or Hospital number – this 3rd identifier will be the patient address for private patient samples

Incomplete details on request forms result in delay in processing and reporting requests. It also increases the chances of specimen mix up and poor quality reports. The request form must also have the following details clearly written:

- Requesting Consultant and/or GP
- Ward/Clinic/GP Practice for patients.

Basildon hospital request forms must be signed by the requesting clinician, otherwise the specimen will be rejected: Failure to do so will result in the specimen being returned to the sender with a subsequent delay in reporting.

Please ensure that telephone calls enquiring about already posted reports and/or requesting them to be faxed are kept to an absolute minimum. Our secretaries are finding it very difficult to cope with the large numbers of calls they receive and these cause severe disruption to their daily work.

Limitations

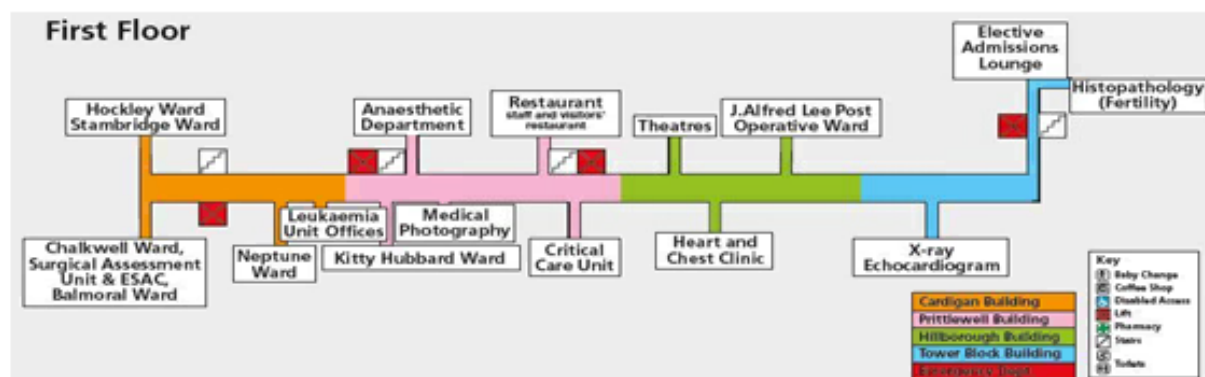
1. Incorrect Request forms - delay in transit as sample may go to another department. This may affect the cell preservation (Non-Gynae and Andrology) and hence the diagnosis
2. Sample and form incorrectly/incompletely filled in - sample may be for incorrect patient or the report may go to the incorrect consultant/GP
3. Incorrect/missing clinical details - may result in incorrect interpretation of results or not all relevant tests being carried out.
4. Delay in transit/failure to refrigerate - sample may deteriorate (non gynae)
5. Large sample - returned to originator for aliquot - delay in processing sample may deteriorate.

6. Sample in inappropriate container - may not be possible for sample to be processed.

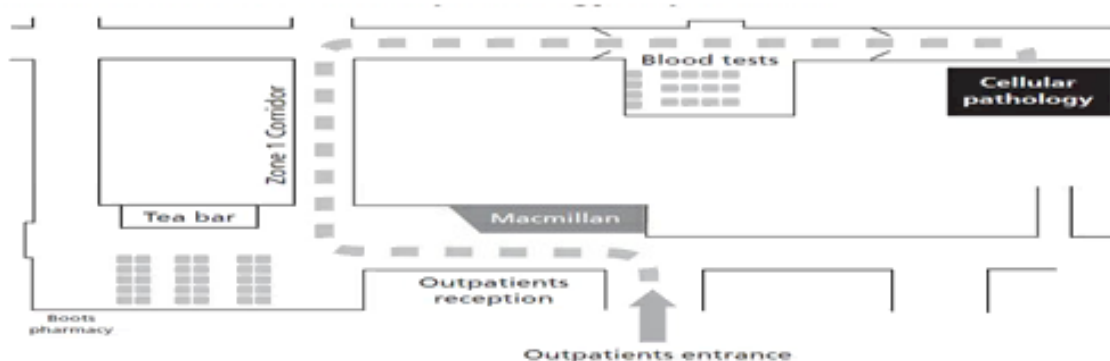
Cellular Pathology Laboratory locations

All sample pots (including formalin filled) for Histology and Cytology can be collected from:

Southend University Hospital



Basildon & Thurrock University Hospital



Routine Histology

Specimens are to be sent in 10% buffered formal-saline. Please ensure that the container is large enough not to squash the tissue, and that it contains sufficient fixative. (Approximately ten times the volume of the specimen is recommended).



labelled with the patient's details. This should be written on

within 7 calendar days after receipt into the laboratory.
Special stains or tumour markers will take longer.

absolutely necessary. If the report is required by a given
date form.

relevant Hospital site in advance to enable the Consultant
to be ready and available. Please give a minimum of 24 hours

If during surgery, please contact a **Consultant
Histopathologist** immediately to ensure this is possible. Turnaround time is approximately 30
minutes.

Please Note: The last frozen section is to be received no later than **16:30** at both Southend and
Basildon Histology departments.

Foetal Remains/Retained Products of Conception

A fully completed Consent for Disposal form **MUST** be sent in addition the Cellular Pathology request
form any possible pregnancy loss including ectopic pregnancy, products of conception or non-viable
foetuses.

Placenta Samples

A fully completed criteria form is required to be sent with the sample and request form for
acceptance into the Histology department.

Please Note: When collecting container for placenta samples ensure that the largest container (see
image below) is selected to enable the laboratory to add the appropriate volume of formalin
fixative to ensure optimal fixation can take place.

Renal Biopsies

Basildon Hospital – please telephone and give the department as much advance notice as practicable (ext. 8212). The GSG couriers collect at 10:00 and 13:00 therefore any renal biopsies must be received by latest **12:15** to be sent urgently the same day. This allows sufficient time for the lab staff to book into the LIMS system and document the process.

Southend Hospital – please deliver to Histology on the 1st floor Tower Block and specify if sample requires dispatch to the Royal London for analysis. Couriers depart daily 09.30 and 12.30, Monday to Friday. The GSG couriers collect at 09:30 and 12:30 therefore any renal biopsies must be received by latest **11:45** to be sent urgently the same day. This allows sufficient time for the lab staff to book into the LIMS system and document the process.

Please Note: All renal biopsies received in the laboratory outside of the above stated times for BUH and SUH respectively, the package will be forwarded (**if clinically requested**) to the Office Team at that site to organise an ad-hoc Global collection and delivery to the referral laboratory.

Cytogenetic Samples SUH

Request Form

Request on DR01 Request form, orange topped form labeled REGIONAL CYTOGENETICS
LABORATORY NORTH EAST THAMES REGIONAL GENETIC SERVICE

Specimens will only be accepted if 3 patient identifiers are provided which are:

- ✓ patient name
 - ✓ DOB,
 - ✓ NHS number, or the Hospital number. Alternatively the address can be accepted as a 3rd patient identifier for a private patient sample providing it correlates with the LIMS and or other databases
- The specimen is received in the correct specimen container as shown in the image below
 - PAS bar coded printed labels will be accepted on request forms and specimen containers

Container

In order for samples to be transported complying with UN packaging laws we are only able to send samples received in **small 60ml or similar sized containers**, as shown in the image below. If a sample is received in a vacu style container or large sized container; as shown in the image below– then the laboratory is unable to dispatch the specimen and the sample will be rejected.



Specimen

Dry sample or sample in sterile saline only – samples are to be delivered to the Histology laboratory 1st floor of the Tower Block 8-5pm, outside of these times please deliver to the 2nd floor ESL where the sample will need to be refrigerated. Complete placentas are **NOT** required – please sample a 2-3cm length of the cord and place in the sample container as shown in the image above

Availability

Transport to GOSH Monday to Friday – Courier departure times 8.30 and 12.30

Nerve Biopsies

The Histology department can only process to a paraffin processed block – if EM or teased nerve fibre analysis is needed, a sample in glutaraldehyde is required, which you will need to obtain from UCL.

For any further queries regarding the procedure, please contact Dr Michael Groves m.groves@ucl.ac.uk or Andrew Theodoulou andrew.theodoulou@nhs.net at UCL.

Procedure For Sending Peripheral Nerve Biopsies

- Surgical removal of the sural nerve: minimum length necessary is 3cm in children and 4-6cm in adults.
- Immediately after removal (any delay after removal is detrimental as it leads to drying artifacts) it is laid flat on a piece of rough card avoiding any kinks or folds by gripping the epineurial sheath at one end with fine forceps. **Avoid squashing it.**
- Allow to adhere for 20 seconds and then divide into two equal halves with a thin razor blade. Make a quick clean surgical cut. Avoid tentative cuts as it may lead to disruption of the

fascicles. Place one half immediately into a specimen container containing 3% glutaraldehyde in 0.05M Sodium cacodylate (or 0.05M phosphate buffer) buffer pH7.2-7.4 (EM fixative can be provided by us).

- The second half goes immediately into a separate bottle containing neutral buffered formalin (or formol saline).
- Label the sample with the patient details, enclose your contact details, time the biopsy was taken, and any other relevant information you think would be helpful.
- A copy of the clinical history, relevant investigations and the results of the nerve conduction studies must be included with the specimens. Nerve biopsies will not be reported in absence of the relevant clinical documents. Pack the samples into a box

- **PLEASE INFORM US IF THERE IS ANY RISK OF INFECTION**

- If received at Southend Hospital the team will coordinate dispatch via global
- Clearly label the packet "For urgent attention" and courier to the following address:

Neuropathology Laboratory
Division of Neuropathology
UCL Institute of Neurology
Queen Square
London WC1N 3BG

Tel: 0203 448 4236

Fax: 0203 448 4486

Please send the biopsy Monday-Friday between 9AM and 4PM. The specimens will not be collected after 4PM, or on weekends and bank holidays. It will be helpful if you can notify the laboratory on 020 3448 4236 before sending the biopsy.

Please state whether the patient is an NHS or private case.

If you have any further queries, please do not hesitate to contact us.

Specimens need to be prepared carefully – please telephone the laboratory well in advance of the biopsy to arrange for a Biomedical Scientist to attend the procedure and deal with the biopsy, specimens not handled in the correct way could render them useless for diagnosis.

Muscle Biopsies

Basildon Hospital - please telephone the **Rheumatology** Department on 0845 155 3111 x8461

Southend Hospital – please see instructions below:

- We require have at least 24-48 hours' notice and the sample needs to arrive in the lab no later than 2pm to enable the courier to safely transport the sample to Addenbrookes before 5pm– the rheumatology team will be required to provide an ETA of when the sample is to be delivered to the lab in order for the lab to contact the courier (Global) -ask for the sample to be collected from the histology lab – 1st floor tower block.
- The Rheumatology or clinical team are to Contact Robert Fincham (please see contact details below) to ensure that they have capacity to accept the muscle biopsy.

- Contact **Robert Fincham** (see contact details below) or the lab at **Addenbrookes** to make them aware the sample is on route.
Histopathology / Neuropathology
Old LMB Building (Opposite Outpatients)
Box 235
Addenbrookes Hospital
Hills Road
Cambridge
CB1 0QQ
Tel. 01223 217167.

For any further details contact: Mr Robert Fincham Robert.Fincham@addenbrookes.nhs.net
Chief BMS

Immunofluorescence (IMF) Staining of Skin

For dermatological skin conditions that require identification of certain immunoglobulins at particular locations in the epidermis.

Skin biopsies should be received in a labelled specimen container filled with Michel's (Zeus™) transport medium along with a request form. Patient details on the container and request form must match. The Department will accept specimens received in PBS, as an alternative when no Michel's can be sourced.

Please Note this Test is not currently assessed to UKAS Standards ISO 15189

Andrology: Semen analysis

Synonyms: Male Fertility Test, Post Vasectomy sample.

Male Fertility Test includes estimation of: volume of ejaculate, viscosity, vitality, sperm motility, sperm concentration and sperm morphology.

Post Vasectomy testing detects presence or absence of sperm, approximate numbers seen per ml, and presence or absence of motility. **The sample is required for analysis 16 weeks after having the vasectomy, if this is clear of sperm, the patient is not required to carry out a second sample, if the 16 weeks still has sperm present, a second at 20 weeks is required.**

Requesting

ICE requesting should be used where available. Otherwise please use document **PF-HIS-LF-96**.

Three patient identifiers, including the NHS number name and date of birth are required on the request form AND specimen container.

SPECIAL CLEARANCE- After 28 weeks / 7 months the patient still has sperm present in the sample, the clinician can decide to give special clearance.

Special arrangements via **appointment only** are in place for receipt of all Andrology specimens.

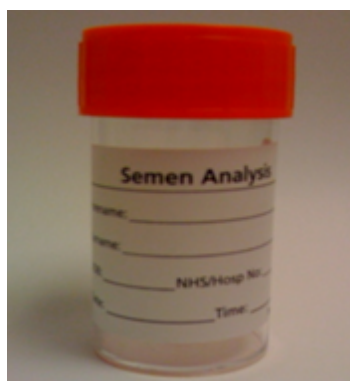
Appointments are available weekdays between 07.30-15.30.

Patients should make their appointment **online** by accessing the [SUH](#) website – For Patients and Visitors – Male Fertility and Post Vasectomy Tests. **Only** if there is a problem, phone 01702 435555 ext 7726 as this is the laboratory, not a booking line.

Adherence to specimen collection requirements are important for accurate results. Patients should therefore read the information sheet available on the Southend Hospital website – For Patients and Visitors – Male Fertility and Post Vasectomy Tests – Collection and Transport of Semen Samples.

Container

Squat red top container, see image below, labelled 'Semen Analysis' available from Pathology Reception and Path Stores order form. These have been toxicity tested and are the **only container** suitable and accepted by the department for these tests.



Sample Collection

Please note that the patients must produce sample at home as there are no suitable facilities on the hospital site for sample collection. [If patients are further than 50 minutes away from Southend and require a fertility test, please look into more local clinics as we are unable to take out of area patients.](#)

Complete semen sample to be collected by masturbation directly into container.

The sample should be collected between 3 and 7 days of sexual abstinence.

Samples are delivered directly to the Cellular Pathology laboratory, located on first floor of the tower block at SUH, within 1 hour of collection. Male fertility samples should be kept warm.

These samples **MUST NOT** be delivered by GP courier.

Causes for Rejection

- Unlabelled / inadequately labelled
- Leaking
- Received without an appointment
- Incorrect specimen container
- 3rd patient identifier missing
- Specimen too old for processing

Turnaround Time

Post-vasectomy samples: up to 5 working days

Male Fertility samples: up to 10 working days

Reference Range

For Male Fertility test:

- Volume 1.5 ml or more
- Sperm concentration 16×10^6 / ml or more
- Motility 30% or more progressively motile
- Normal morphology is 4% or greater

[top](#)

Non Gynae Cytology samples

The non-gynaecology department is located within the Pathology First Histology Laboratory at Basildon Hospital. Routine laboratory hours and general enquiries: 0900-17:00 Monday to Friday 01268 524900 ext 3033.

Request Forms

Please use ICE or alternatively Cellular Pathology request forms for all non gynae cytology samples (Downloadable Non- Gynae Request form for Southend Pathology Handbook – PF-CYT-LF-60) . The request form must include 3 patient identifiers, and include the following:

- Surname
- First name
- Date of Birth
- NHS number/Hospital Number (for Hospital patients)
- Consultant/GP
- Ward/Department
- Nature and Source of Specimen
- Clinical History
- Date and time sample taken

Please clearly label all urgent samples with 'urgent'. Please ensure all details are clearly written to prevent delays in reporting.

Sample Container

Please use white topped universal containers or ThinPrep Cytolyt containers as appropriate. The sample pot should be clearly labelled using indelible pen with **3 patient identifiers including NHS number** and date/time sample taken.

Any missing details may lead to a delay in reporting or may lead to the sample being rejected. Please place labelled **sample pot** with the completed request form in a transport bag with absorbent paper.



ThinPrep CytoLyt Container

White-topped universal

Transport

Basildon Hospital: Ward and clinic samples should be taken to the Pathology Specimen reception hatch on Level C as soon as possible after collection to prevent delays in transit and to prevent sample deteriorating, processing and reporting.

If there is a delay between collection and transport, fresh samples need to be refrigerated. Samples collected in CytoLyt **can** be left at room temperature.

NB: Any samples for Cardio Thoracic Centre (CTC) should be transported directly to the CTC Pathology department (not via Histology).

Southend Hospital: Ward and clinic samples should be taken to Pathology Reception in the Essential Services Lab on the 2nd Floor in the pink zone as soon as possible after collection to prevent delays in transit and reporting.

If there is a delay between collection and transport, fresh samples need to be refrigerated. Samples collected in CytoLyt **can** be left at room temperature.

NB: Any samples for Cardio Thoracic Centre (CTC) should be transported directly to the CTC Pathology department (not via Histology).

All GP work is collected by the courier service and brought to the ESL at BUH.

Factors Affecting Examination Results/Limitations

Urine and sputum samples will be rejected and NOT processed if the sample or form are unlabelled. Other less easily repeatable unlabelled samples may be accepted but the clinician will be contacted to take responsibility for the sample and a disclaimer form will have to be completed. This will result in a delay in reporting so it is imperative that all samples clearly labelled and form are completed. Samples where there is a major miss-match between the request form and the sample pot may also be rejected (we will endeavour, wherever possible to contact the clinician first). The reason for rejection will be stated on the report.

All samples should be taken to specimen reception in the specimen bag and the bags should be in the designated transport boxes e.g. blue boxes or white boxes as soon as possible for collection by a courier. To place correct transport code sticker is important as soon as possible for collection by a courier. If this is not possible place all fresh samples in a fridge to prevent deterioration. If sample is in CytoLyt please leave at room temperature.

Please send SEPERATE samples for Cytological investigation with the correct Cellular Pathology request form whenever possible rather than 'sharing' the sample with another department. This may lead to a delay in transit to Cytology and deterioration of the specimen.

Sample Requirements

Fluids

40ml is the maximum volume required for cytological investigations. Large volume samples are not accepted as large volumes are difficult for the laboratory to deal with due to limited facilities. Dry 2oz containers, 1 or 2 white capped universal containers or a ThinPrep 'Cytolyt' container may be used. A fully completed request form must accompany the specimen with the date and time of collection recorded. The clinical information provided must be sufficient and appropriate to aid the Pathologist reporting the case.

Urine

A full specimen of urine, preferably a mid-morning specimen, (please do not collect first urine sample of the day), is required for cytology, Please advise patients to record the date and time of collection on the specimen container and ensure that the lids are firmly tightened to prevent leakage during transport to the laboratory. When catheter specimens are sent, please ensure that it is mentioned on the request form and clearly labelled as such on the specimen container. Urine cytology samples should not be collected during the 14 days following cystoscopy. Unlabelled specimens will not be processed.

Bronchial Brushings, Washings & Sputums

Material obtained by brushing should be spread along the length of the slide, and the slide must be placed immediately in absolute alcohol. The slide must be labelled in pencil with the patients name, DOB and NHS number (hospital number is acceptable if the NHS number is not available). The slide must be sent to the laboratory in a slide box together with the fully completed request form.

Bronchial Washings and sputum samples can be collected into ThinPrep 'CytoLyt' containers, but a white capped universal container or a dry 2oz container with or without 10ml CytoLyt is acceptable. Sputum specimens should be collected on three consecutive days. These should be expectorated early in the day before eating, drinking or cleaning teeth. Specimens contaminated with food particles are not helpful to the assessment. Send the specimens daily. Do not save until all three are collected.



2oz container

Fine Needle Aspirates (FNA)

Material obtained by aspiration should be spread along the length of the slide, using another glass slide placed horizontally, pulling the slides apart. Prepared slides must be fixed immediately in alcohol or air dried (preferably one of each) before dispatch to the laboratory. Slides must be labelled in pencil with the patients name, DOB and NHS number (hospital number is acceptable if the NHS number is not available) and with an indication as to the method of fixation. The slides must be sent to the laboratory in a slide box. If there is material remaining after the slides have been prepared, this can be placed into a white

topped universal or placed into a universal containing preservative fluid (CytoLyt).



Other specimens

Cytological investigation of a variety of specimens is available. These include bronchial brushings and biliary brushing from biliary strictures. For any further information please contact the Cytology lab for guidance on 01268 524 900 Ext: 3033

Please note:

1. All **fresh** samples which cannot be sent to the laboratory immediately must be refrigerated and sent to the laboratory as soon as possible. Samples collected into CytoLyt must be left at room temperature.
2. Any additional investigations must be requested within 3 - 5 working days of the sample being taken or the cells may have deteriorated too much for analysis and a new sample will be requested.

Reports

Reports are available to view on the Basildon intranet: Hub/Clinical Hub/Histology reporting. The laboratory staff do not issue results directly to the patient.

Turn Around Times

Non gynae aim to be reported within 10 days from receipt of sample in the laboratory as recommended in RCPATH guidelines: Key Performance Indicators in Pathology April 2013.

Patient Complaints

PALS (Patient Advice and Liaison Service) at MSE

The Patient Advice and Liaison Service (PALS) offers confidential advice, support and information on health-related matters. They provide a point of contact for patients, their families and their carers.

How can PALS help?

PALS provides help in many ways. For example, it can:

- help you with health-related questions
- help resolve concerns or problems when you're using the NHS
- tell you how to get more involved in your own healthcare

PALS can give you information about:

- the NHS
- the NHS complaints procedure, including how to get independent help if you want to make a complaint

- support groups outside the NHS

PALS also helps to improve the NHS by listening to your concerns and suggestions.

If you need to contact our PALS services at our MSE hospitals, the contact details are below.

Level C Basildon University Hospital, Nethermayne Basildon Essex SS16 5NL	Southend University Hospital Prittlewell Chase Westcliff on Sea Essex SS0 0RY
Phone: 01268 394440 10:00-15:00 Monday-Friday email: pals@btuh.nhs.uk	Phone: 01702 385333 10:00-15:00 Monday to Friday Fax: 01702 385915 Email: PALS@southend.nhs.uk

Data protection and GDPR

Pathology First (SYNLAB) is fully committed to protecting and respecting individual privacy. All staff have a role to play in compliance of EU data protection laws regulating the use of information concerning living individuals. In particular, Pathology First (SYNLAB) will, from 25th May 2018 be obliged to comply with the requirements and restrictions of the General Data Protection Regulation (EU) 2016/679 ("GDPR") as incorporated into UK and Irish legislation.

THE 6 PRINCIPLES OF GDPR

GDPR introduces the following key principles, which SYNLAB has used to underpin all its activity around the introduction of the new GDPR.

Lawfulness, fairness and transparency: this covers the primary areas of concern that data should be gathered and used in a way that is legal, fair and understandable. Data Subjects have the right to know what is being gathered and have the right to have this corrected or removed. Refer to section 8 and 9 below for further information.

Purpose limitation: SYNLAB will only use data for a legitimate purpose specified at the time of collection. Refer to section 9.

Data minimisation: the data collected by SYNLAB will be limited only to what is required for the purposes stated at the time of collection.

Accuracy: Personal Data held by SYNLAB will be accurate, kept up-to-date, and if it is no longer accurate, will be rectified or erased on notification. Refer to section 13.

Storage limitation: Personal Data will only be stored for as long as necessary. Refer to HR 10.2.1 Personal Data Retention Guidelines or section 14 below.

Integrity and confidentiality: Personal Data will be held in a safe and secure way that takes reasonable steps to ensure the security of the information and avoid accidental loss, misuse or destruction. Refer to HR 10.2.1 Personal Data Retention Guidelines.

SYNLAB will take particular care in relation to the Processing of Personal Data in the following areas which we define as 'Sensitive Personal Data':

SENSITIVE PERSONAL DATA

Personal Data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs or trade union membership;

Genetic data and biometric data Processed for the purpose of uniquely identifying a living individual;

Personal Data concerning a living individual's health, sex life or sexual orientation; and

Personal Data relating to criminal convictions and offences or related security measures.

Accredited to
ISO 15189:2022

In particular, SYNLAB will not process Sensitive Personal Data except where:

- The Processing is necessary for the purposes of performing obligations or exercising specific rights under employment and social security and social protection law;
- The Processing is necessary to protect the Data Subject's (or another person's) "vital interests" (where this is a matter of life or death) and the Data Subject is physically or legally incapable of giving consent;
- The Sensitive Personal Data has been deliberately made public by the Data Subject; or the IDPGG has Formally Approved the Processing on the basis that it is compliant with the GDPR and other applicable laws.