HODS LAB HANDBOOK

Haemato-Oncology Diagnostic Services testing guide V2.0

HODS Web link (from N3 connection only)

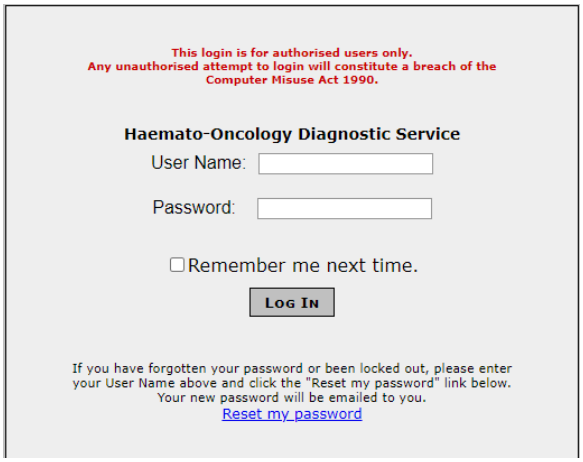
https://hods.rlbuht.nhs.uk/HODS

Requesting a HODS account:-

Please contact the laboratory at HODSEnquiries@rlbuht.nhs.uk to request access to the HODS integrated IT system (Note this is only available from organisations that have a pre-agreed licence with the HODS service, and requires N3 connection). Required information – Full name and job role of new user, email address for password reset/result notification, organisation currently contracted to, any cross-site access if performing a multi-site role.

Password reset:-

The HODS password reset function is now automated, please enter your username and click the “reset my password” link as shown below.



Generic accounts – No generic accounts are allowed however it is possible to utilise a group email address for result notification, contact the laboratory to discuss further.

Access from new devices/locations – For issues with access from new devices/external hospital

The LCL Haemato-Oncology Diagnostic Service (HODS) is a NICE IOG 2016 (NG 47) Peer Review compliant service in the North West of England. The service carries out primary reporting of Haematological malignancies, including all modalities of testing on liquid, solid and genetics/-omics in conjunction with Manchester Foundation Trust as part of the North West Genomics Laboratory hub.
The service is located within Liverpool Clinical Laboratories (LCL) at the Royal Liverpool University Hospital Clinical Support Services Building (CSSB) and houses the Flow Cytometry, BM Aspirate morphology, Histology and Immunohistochemistry, and Molecular Genetics elements in a single integrated laboratory space with a multidisciplinary workforce.
The service is UKAS 15189 accredited with the full list of tests available online at UKAS, lab reference 9785. Any tests not currently accredited are listed on the lab handbook via the link (Medical Laboratory Accreditation link). All sections of the service are participating in UK NEQAS, ERIC, BLPG and GENQA schemes as appropriate.

Key Contacts:-

LCL site

Clinical Director - Dr Geetha Menon (Geetha.Menon@liverpoolft.nhs.uk)

Solid Tissue Lead – Dr Igor Racu-Amoasii (Igor.Racu-Amoasii@liverpoolft.nhs.uk, 0151 706 5157)

Liquid leads – Dr Rachel Wells (Rachel.wells@liverpoolft.nhs.uk, 07764944569) /Tracey Smith-Straney (Tracey.Smith-Straney2@liverpoolft.nhs.uk) 0151 706 4334

Service Lead – Anthony Carter (Anthony.Carter@liverpoolft.nhs.uk 0151 706 4335)

Senior Clinical Scientist – Lihui Wang (lihui.Wang@liverpoolft.nhs.uk) 0151 704 4326

Laboratory Manager – Sarah Crawford (Sarah.Crawford@liverpoolft.nhs.uk, 0151 706 4334)

Section Leads:
Immunophenotyping – David Lawton (David.Lawton@liverpoolft.nhs.uk)
Histology - Lynda Bowes (Lynda.Bowes@liverpoolft.nhs.uk, 0151 706 4334)
Molecular - Gillian Johnson (Gillian.Johnson@liverpoolft.nhs.uk, 0151 706 4326)

Generic email address for queries – HODSEnquiries@rlbuht.nhs.uk. HODSEnquiries@liverpoolft.nhs.uk

locations please contact the lab for further support – HODSEnquiries@liverpoolft.nhs.uk Requests from results- Please note the stated TAT figures for the tests listed below. It is important to note that Episodes may have additional Molecular/Cytogenetic tests added based on morphological review/immunophenotyping. The TAT for the add-on tests starts the day the team receive the request. For an interim report contact the laboratory directly, ***however interim reports may be subject to change and any action taken based on interim findings is the responsibility of the requesting clinician.*** **Clinically urgent** samples will be prioritised where possible but contact the laboratory for estimated report date where necessary.	Generic address for MDT lists/MDT queries – HODSMDT@rlbuht.nhs.uk **MFT Sites** **Liverpool site (based at Liverpool Women's Hospital)** Cancer programme lead (Liverpool site) – Julia Kenyon – Julia.kenyon@mft.nhs.uk Principal Clinical Scientist – Sarah Flynn – Sarah.flynn3@mft.nhs.uk All Cytogenetic based enquiries – duty scientist account - mft.genetics-oncology@nhs.net
Times of operation and service	**Main LCL site:** - Mon – Friday 08:30 – 17:00 (Flow cytometry On Call service 09:00 – 17:00 for selected Bank Holidays – Call before sending any samples, details will be available on the HODS system noticeboard) **MFT site (Liverpool site based at Liverpool Women's Hospital)** **Mon-Fri 9:00 – 17:00 (core hours)**
Details on how to fill in the request form or make a test request.	ALL HODS requests should be made via the HODS integrated IT system (contact the laboratory for details). Once access is granted to the integrated IT system the Help section contains the details of how to complete a request. A downtime form is available for requests to be send where access to the integrated system is not possible, **please contact the lab on 0151 706 4334 before sending samples using the downtime form**, or for further details.
Guidance on how to prepare the patient (if relevant)	No specific preparation unless detailed in the individual test requirements – Contact the laboratory BEFORE taking samples if there are any specific queries.
Detail the collection and handling of primary samples	As detailed below.
Any additions, exclusions, or deviations from the documented collection procedure, how to record these changes and how to communicate this to relevant staff	Contact the laboratory directly for specific advice for samples not listed below, or unusual/urgent requests.
Guidance for samples collected by the patient	Not applicable
Guidance on how the samples should be handled and transported	As detailed below
Guidance on obtaining patient consent, if required. **Provide information of the clinical procedure that the patient will be undergoing to ensure the patient is informed prior to consent.**	Local consent should be sought where applicable. For Whole Genome sequencing (WGS), consent forms are available in the documents section of the HODS integrated software system. Completed consent forms can be uploaded to the patients HODS episode as required. If a request is sent for testing to the HODS department that would have required prior consent the laboratory will treat these as having received local consent unless told otherwise. If a patient withdraws consent please notify the laboratory at the earlies possible opportunity.

Criteria for accepting or rejecting samples according to the laboratory	Samples will be dealt with in. accordance with the organisations Minimum Data standards policy (Available on the LCL lab handbook), For precious samples please contact the laboratory if there is a deviation from these standards. To summarise, samples may be rejected for the following reasons: • Samples and request form do not show at least three identical patient identifiers. • No patient name or mismatched name. • The sample is in the incorrect collection media. • The sample is not of sufficient volume. • The sample is too old (greater than 3 days old for certain tests) • No NHS number – this is mandatory. • No indication (YES/NO) of whether the sample is High Risk (ensure the Pathogen is recorded on the form). It is the responsibility of the person collecting the sample to ensure it is correctly labelled.
Whom to contact should clinical advice be required prior to ordering the examination procedure(s)	HODS requests should be made by consultant Haematologists, or those designated to make requests on their behalf. Clinical advice queries should be directed to the Liquid/Solid tissue section leads if they cannot be answered by the requesting consultant.
Information on the laboratory policy regarding protection of personal information	See link on general information on lab handbook home page.
Guidance on how to file a complaint according to laboratory procedure	Please contact the service lead or laboratory manager in the event of wishing to raise a complaint. Anthony.Carter@liverpoolft.nhs.uk Sarah.Craford@liverpoolft.nhs.uk
Guidance on how to deal with verbal examination requests, and ensure that this is confirmed with a request form	Additional verbal requests will be dealt with by the staff within the HODS service, and the details recorded within the actions tab of the specific patient Episode. A repeat request form will not usually be required but may be requested in certain circumstances.
Guidance for requesting clinical information that is relevant to, or could affect the sample collection, examinations process(es), or interpretation of results	All relevant clinical information should be entered onto the integrated HODS software system at request entry. Any additional information can be added by the user to the clinical details section of the appropriate Episode, and an email to HODSEnquiries@rlbuht.nhs.uk informing HODS personnel of the change would be expected.

Instructions for the standardised way to label primary sample containers such that they can be linked back to the patient correctly to ensure the identification of the patient from whom the primary sample is collected from, record the person collecting the primary sample, with collection date, collection time.	The sample label should include the patient's full name, NHS number (local Hospital number is optional), d.o.b, Date and time of collection of samples, initials of person who collected the sample.
Additional Sample Requirements.	Please ensure a separate sample is sent for each testing modality where possible, e.g.one tube for Immunophenotyping, one for Aspirate morphology, one for Cytogenetics/FISH and one for Molecular genetics. The lab will try and maximise the use of small volume/single samples but cannot guarantee that all tests can be done where insufficient numbers/volumes of samples are received.
Delay to results.	User will be notified of any delay to specific results where there is clinical urgency, otherwise any system delays will be communicated to key users at each site and be detailed on the HODS system electronic noticeboard.

Molecular

TEST SPECIFIC ITEMS

Types of clinical services provided by the laboratory including those that are sent to a referral laboratory	Provide instructions for the collection of patient samples to include: -How to ensure that the patient has fulfilled the pre-examination requirements? -Descriptions of the primary sample containers including additives and collection specific instructions -Information regarding the handling, transport, processing -Instructions on how to store the samples correctly prior to being delivered to the laboratory -Instructions on how to safely dispose of those materials used for the collection	Guidance for pre-collection activities to include: -How to request the type of sample and the amount to collect -Any specific timing of collection, if relevant.	Provide instructions on how to package collected samples for transportation. State any specified transportation of samples time frame relevant to the examination	Details of the examination processes including sample requirements, turnaround times, biological reference intervals, and clinical decision values	Information listing those factors that could affect the examination processes and therefore the results and its interpretation

BCR::ABL KDM	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
BCR::ABL Screening	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
BCR::ABL Quantitation	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
BRAF V600 hotspot	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
BTK codon 481	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**

C-KIT D816V	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
MLL-PTD	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
MPN NGS Panel	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
FIP1L1::PDGFRA	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
FLT3-ITD	**Molecular lab RLUH**		No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**

FLT TKD	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
IGHV Mutation	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
inv(16)(p13.1q22) CBFB-MYH11 RT-PCR	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
Lymphoid NGS panel	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
MYD88 hotspot mutation	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**

Myeloid familial NGS panel	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
Myeloid NGS panel (RLUH) mutation and fusion.	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
NPM1 MRD	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
AML MRD	**Molecular lab RLUH/MFT/Other specialist centre.**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
ALL MRD	**Molecular lab RLUH/MFT/Other specialist centre.**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**

t(15;17)(q24;q21) PML-RARA RT-PCR	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
t(8;21)(q22;q22) RUNX1-RUNX1T1 RT-PCR	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
TP53 Gene Mutation Screen	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
NPM1 screening	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
PML::RARA screening	**Molecular lab RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**

Histology

TEST SPECIFIC ITEMS					
Types of clinical services provided by the laboratory including those that are sent to a referral laboratory	Provide instructions for the collection of patient samples to include: -How to ensure that the patient has fulfilled the pre-examination requirements? -Descriptions of the primary sample containers including additives and collection specific instructions -Information regarding the handling, transport, processing -Instructions on how to store the samples correctly prior to being delivered to the laboratory -Instructions on how to safely dispose of those materials used for the collection	Guidance for pre-collection activities to include: -How to request the type of sample and the amount to collect -Any specific timing of collection, if relevant.	Provide instructions on how to package collected samples for transportation State any specified transportation of samples time frame relevant to the examination	Details of the examination processes including sample requirements, turnaround times, biological reference intervals, and clinical decision values	Information listing those factors that could affect the examination processes and therefore the results and its interpretation
Histology – fixed specimen	Sample should be collected and put into 10% buffered formalin solution. Sample MUST be labelled with patient details and the date and time the sample was placed into the formalin. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm. Storage overnight should be at room temperature. No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**14 Days for clinically urgent cases, 21 days for non-urgent cases.**	**Samples must be sent in 10% neutral buffered formalin at a ratio of 1 in 10. Failure to do so may result in a poor-quality final product that would affect diagnostic review.**

	Dispose of materials used for collection as per local policy.				
Histology – Fresh specimen	**Solid tissue fresh samples are <u>not</u> accepted for histology testing in HODS please contact HODS 0151 706 4334** HODSEnquiries@rlbuht.nhs.uk **for further information and advice.**	**N/A**	**N/A**	**N/A**	**N/A**
Histology – Referral Block/Slides	Referral centres must send labelled blocks (with origin hospital labelling i.e. unique patient identifier) and labelled slides (with a minimum patient surname and origin hospital specimen number/patient identifier). Referral centre MUST send the original patient FFPE block to HODS for testing. Original slides from the referral hospitals will be reviewed alongside diagnostic slides produced from the HODS solid tissue section. If the block has not been sent, then it will be requested before review can commence.	Referral FFPE blocks and slides should be sent to HODS with detailed patient notes to aide with the diagnostic process. They should be sent to the laboratory by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**14 Days for clinically urgent cases, 21 days for non-urgent cases.**	**N/A**
T Cell Gene rearrangement	**Histology RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity and clinical urgency)**	**N/A**
B Cell Clonality Studies	**Histology RLUH**	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on complexity**	

				and clinical urgency)	

Immunophenotyping/BM Aspirate

TEST SPECIFIC ITEMS

Types of clinical services provided by the laboratory including those that are sent to a referral laboratory	Provide instructions for the collection of patient samples to include: -How to ensure that the patient has fulfilled the pre-examination requirements? -Descriptions of the primary sample containers including additives and collection specific instructions -Information regarding the handling, transport, processing -Instructions on how to store the samples correctly prior to being delivered to the laboratory -Instructions on how to safely dispose of those materials used for the collection	Guidance for pre-collection activities to include: -How to request the type of sample and the amount to collect -Any specific timing of collection, if relevant.	Provide instructions on how to package collected samples for transportation State any specified transportation of samples time frame relevant to the examination	Details of the examination processes including sample requirements, turnaround times, biological reference intervals, and clinical decision values	Information listing those factors that could affect the examination processes and therefore the results and its interpretation
Bone Marrow Aspirate	No specific pre-examination requirements Sample should be collected into EDTA tube (minimum fill volume 0.5ml for Bone Marrow). Please send bedside spread slides where possible (4-6 slides is sufficient) Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm. Storage overnight should be at 4°C, but this will affect morphology, so	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm. Storage should be at 4°C overnight, but this will affect morphology, so bedside slides are requested in addition to the EDTA samples.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**14 Days**	

	bedside slides are requested in addition to the EDTA samples. No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible). Dispose of materials used for collection as per local policy.				
Review of Stained slides	No specific requirements as material has been fixed and stained.	**N/A**	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**7 Days**	**N/A**
Trial Bone Marrow	**For use by research team**	**As per the requirements of the clinical trial**	**As per the requirements of the clinical trial**	**N/A**	
Immunophenotyping (all samples **excluding:** Ascitic Fluid (AF), Cerebrospinal Fluid (CSF), Pleural Fluid (PF) and Pericardial Fluid (PCF)	No specific pre-examination requirements Sample should be collected into EDTA tube (4ml tube is sufficient – minimum fill volume 0.5ml for Bone Marrow, 1ml for Peripheral Blood). Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm. Storage overnight should be at 4°C, but this will affect morphology, so bedside slides are requested in addition to the EDTA samples. No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible). Dispose of materials used for collection as per local policy.	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm. Storage should be at 4°C overnight, but this will affect morphology, so bedside slides are requested in addition to the EDTA samples.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**7 days**	**Strict processing cut off time of 72 hours post collection**

CLL MRD	Sample should be collected into EDTA tube (4ml tube is sufficient – minimum fill volume 1.0 ml for Bone Marrow, 4ml for Peripheral Blood). Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm. Storage should be at 4°C overnight. No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible). Dispose of materials used for collection as per local policy.	No specific pre-examination requirements. Samples must be sent to the laboratory on the day they are taken, to arrive by 2pm.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**7 days**	**Strict processing cut off time of 72 hours post collection**
Myeloma MRD	Sample should be collected into EDTA tube (4ml tube is sufficient – minimum fill volume 1.0 ml for Bone Marrow, 4ml for Peripheral Blood). Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm. Storage should be at 4°C overnight. No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible). Dispose of materials used for collection as per local policy.	No specific pre-examination requirements. Samples must be sent to the laboratory on the day they are taken, to arrive by 2pm.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**7 days**	**Strict processing cut off time of 72 hours post collection**
Ascitic Fluid Morphology/Immunophenotyping	No specific pre-examination requirements Sample should be collected into plain universal container (or equivalent) without anticoagulant – minimum fill volume 2ml.. Samples should be sent to the laboratory on the day they are taken, to arrive by	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**7 days**	**Strict processing cut off time of 72 hours post collection**

	4pm. If unavoidable storage should be at 4°C overnight but this will affect morphology, so not recommended for these samples. No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible). Dispose of materials used for collection as per local policy.				
Pericardial fluid Immunophenotyping	Sample should be collected into EDTA tube (4ml tube is sufficient – minimum fill volume 2ml). Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm. Storage should be at 4°C overnight, but this will affect morphology. No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible). Dispose of materials used for collection as per local policy.	No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**7 Days**	**Strict processing cut off time of 72 hours post collection**
CSF – Morphology/Immunophenotyping	No specific pre-examination requirements Sample should be collected into plain universal container (or equivalent) without anticoagulant, minimum volume 0.5ml.. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm. If unavoidable delay and Immunophenotyping is required, then transfer of material to Transfix tube will stabilise the	No specific pre-examination requirements. Samples must be sent to the laboratory on the day they are taken, to arrive by 4pm. In exceptional circumstances samples may be taken into transfix for overnight storage at 4C.	**Samples CANNOT be sent via the pod system. If samples are to arrive in the HODS laboratory after 4pm, or on a weekend they MUST be sent on Transfix preservative tubes, otherwise they will be reported as unsuitable.**	**7 days**	**Strict processing cut off time of 72 hours for immunophenotyping on samples placed on Transfix preservative tube**

	sample for 72 hours - contact your local laboratory to obtain a Transfix tube. Note, morphological assessment cannot be performed on CSF placed in Transfix preservative.. Storage of CSF in Transfix should be at 4°C. No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible). Dispose of materials used for collection as per local policy.				
Pleural Fluid Morphology/Immunophenotyping	Pre-examination requirements – Negative COVID test no more than 72 hours prior to sample date. Sample should be collected into plain universal container (or equivalent) without anticoagulant. Samples should be sent to the laboratory <u>on the day they are taken</u>, to arrive by 4pm. If unavoidable storage should be at 4°C overnight but this will affect morphology. No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible). Dispose of materials used for collection as per local policy.	Pre-examination requirements – Negative COVID test no more than 72 hours prior to sample date. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**7 days**	**Strict processing cut off time of 72 hours post collection**

PNH Screen	Peripheral blood sample collected into EDTA tube (4ml tube is sufficient – minimum fill volume 2ml). Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm. Storage should be at 4°C overnight, but No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible). Dispose of materials used for collection as per local policy.	Please indicate if the patient has been transfused up to 3 months prior to the sample being collected: only WBC testing will be reported on samples where a patient has received a red cell transfusion within the last 3 months. No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**5 Days**	**Strict processing cut off time of 72 hours post collection**

MFT Genetics

TEST SPECIFIC ITEMS					
Types of clinical services provided by the laboratory including those that are sent to a referral laboratory	Provide instructions for the collection of patient samples to include: -How to ensure that the patient has fulfilled the pre-examination requirements? -Descriptions of the primary sample containers including additives and collection specific instructions -Information regarding the handling, transport, processing -Instructions on how to store the samples correctly prior to being delivered to the laboratory -Instructions on how to safely dispose of those materials used for the collection	Guidance for pre-collection activities to include: -How to request the type of sample and the amount to collect -Any specific timing of collection, if relevant.	Provide instructions on how to package collected samples for transportation State any specified transportation of samples time frame relevant to the examination	Details of the examination processes including sample requirements, turnaround times, biological reference intervals, and clinical decision values	Information listing those factors that could affect the examination processes and therefore the results and its interpretation

Conventional Cytogenetics (Karyotyping)	1-2ml bone marrow aspirate in transport media (provided by cytogenetics laboratory). If bone marrow aspirate is not available, peripheral blood sample collected into Lithium Heparin tube (4ml tube is sufficient – minimum fill volume 2ml) can be attempted, provided there is an excess of blasts present for culturing. Samples should be sent to the HODS laboratory on the day they are taken, to arrive by 4pm. Storage should be at 4°C overnight, but No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm.** **Contact MFT - mft.genetics-oncology@nhs.net**		**TAT as per NHGSE genomic guidelines (7 day, 14 day 21 day depending on clinical urgency)**	
CSF Cytogenetics (FISH only)	No specific pre-examination requirements Sample should be collected into plain universal container (or equivalent) without anticoagulant, Samples should be sent to the HODS laboratory on the day they are taken, to arrive by 4pm. Storage should be at 4°C overnight, but No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm.** **Contact MFT - mft.genetics-oncology@nhs.net**	**Samples CANNOT be sent via the pod system.**	**TAT as per NHGSE genomic guidelines (3, day, 14 day 21 day depending on clinical urgency)**	

Cytogenetics (Fresh lymph node)	No specific pre-examination requirements Sample should be in transport media (provided by cytogenetics laboratory). Samples should be sent to the HODS laboratory on the day they are taken, to arrive by 4pm. Storage should be at 4°C overnight, but No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**No specific pre-examination requirements.** **Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm.** **Contact MFT - mft.genetics-oncology@nhs.net**	**Must arrive the same day the sample was taken.**	**TAT as per NHGSE genomic guidelines (3 day, 14 day 21 day depending on clinical urgency)**	
FISH	1-2ml bone marrow aspirate in transport media (provided by cytogenetics laboratory). If FISH only testing (eg CLL, BCR/ABL1) Peripheral blood sample collected into EDTA tube *Note: this collection tube is NOT appropriate for karyotype analysis Samples should be sent to the HODS laboratory on the day they are taken, to arrive by 4pm. Storage should be at 4°C overnight, but No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**No specific pre-examination requirements.** **Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm.** **Contact MFT - mft.genetics-oncology@nhs.net**		**TAT as per NHGSE genomic guidelines (3, day, 7 day, 14 day 21 day depending on clinical urgency)**	

SNP Array	1-2ml bone marrow aspirate in EDTA tube If bone marrow aspirate is not available, peripheral blood sample collected into ETDA tube (4ml tube is sufficient – minimum fill volume 2ml) can be attempted, provided there is an excess of blasts present Samples should be sent to the HODS laboratory on the day they are taken, to arrive by 4pm. Storage should be at 4°C overnight, but No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**No specific pre-examination requirements. Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm.** **Contact MFT - mft.genetics-oncology@nhs.net**		**TAT as per NHGSE genomic guidelines (14 day 21 day depending on clinical urgency)**	
Whole Genome Germline sample	**Contact the HODS lab**	Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**Contact the HODS laboratory**	**N/A**
Whole Genome Tumour sample	**Contact the HODS lab**	Samples should be sent to the laboratory on the day they are taken, to arrive by 4pm where possible.	No specific transport requirements (Recommended to use dedicated HODS transport boxes/pouches where possible).	**Contact the HODS laboratory**	**N/A**

HODS downtime request form:

HODS REQUEST FORM

Episode Details

Episode ID	Name		Barcode
Reg. No.	**Date of Birth**	**NHS No**	**Sex**
Hospital		**Consultant**	
Suspected Diagnosis		**Sample Research Consent**	**High Risk**

FBC Data

HB	WBC	PLT	MCV	MCH	Neuts	Lymph	Monos	Eos	Baso	FBC Date

Relevant Clinical details

Date First Presented	Episode Created By	Created Date & Time

Samples Taken

Sample No	Sample Type	Sample Ref	Date Taken	Organ

Investigations Required

Sample No	Sample Type	Test Requested	Testing Department