

Lymphoma Service

Background

Lymphoma is the fifth most common cancer in the UK, affecting cells of the lymph nodes and leading to uncontrolled proliferation of neoplastic B and T lymphocytes and tumour growth. It can be broadly classified as Hodgkin and Non-Hodgkin lymphoma.

Hodgkin lymphoma is the less common subtype and is classified based on the presence of Reed-Sternberg cells in lymph node tissue. Non-Hodgkin lymphoma has a broader clinical presentation and natural history than Hodgkin lymphoma. Burkitt Lymphoma, Follicular Lymphoma, Diffuse Large B-Cell Lymphoma (DLBCL) and Mantle Cell Lymphoma are all classes of Non-Hodgkin lymphoma which can be subtyped with the contribution of cytogenetic and molecular assays provided by AWMGS.

AWGMS provide the genetic testing for the All Wales Lymphoma Panel (AWLP).

Test information

- **Fluorescent in situ hybridization (FISH)** is available upon request, probes are listed below.

Disease indication	Probes available on request
<i>B-Cell Lymphoma</i>	
Burkitt Lymphoma, DLBCL, HGBL*	MYC, BCL2, BCL6, 11q, 1p36, MYC partner FISH probes (IGH, IGK and IGL).
Follicular Lymphoma	BCL2, BCL6
Mantle Cell Lymphoma	IGH/CCND1 and P53/CEN17
<i>T-Cell Lymphoma</i>	
	ALK, IRF4/DUSP22, TP63

*HGBL – High grade B cell lymphoma

Other FISH probes are available, including BCL10 and MALT1.

- **Digital droplet PCR (ddPCR)** is available for the testing of Waldenström Macroglobulinemia. The assay is for the detection of the MYD88 L265P (OMIM: 602170.0004) hotspot variant, which is a both a prognostic indicator and a therapeutic target. For more information on the ddPCR MYD88 service, see the Waldenström macroglobulinemia information sheet.
- A multiplex PCR assay for **B and T cell clonality** is available for the detection of rearrangements in the B and T cell receptor genes.
- A next generation sequencing (NGS) panel is available for Angioimmunoblastic T-Cell Lymphoma (AITCL), for more information see the AITCL NGS service information sheet.
- A next generation sequencing (NGS) panel for the analysis of the TP53 gene is available for Mantle cell lymphoma (MCL). Please see the Mantle cell lymphoma request form.

Results must be interpreted in combination with clinical, immunological and immunophenotypic data.

Referral Criteria

The AWMGS do not routinely provide follow up minimal residual disease monitoring for lymphoid diseases. Please send these to the relevant immunophenotypic laboratory.

For bone marrow and peripheral blood samples, information regarding percentage bone marrow involvement, clone size and phenotype must be provided.

All referrals received via the AWLP can be made on AWLP request forms.

All other requests should be made on an appropriate request form available at the AWMGS website www.medicalgenomicswales.co.uk.

Contact Details

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Sample Requirements

Bone marrow – send in sterile transport medium supplied by laboratory or in a lithium heparin blood tube

Fresh tissue

FFPE slides

Blood in EDTA

Please label samples with three identifiers and date of collection

All samples must be accompanied by a completed request form

Consent for testing and sample storage is assumed when the request is received – it is the responsibility of the referring clinician to ensure that appropriate consent has been obtained.

TAT (Calendar days)

FISH	14 CD
B and T cell clonality analysis	14 CD
ddPCR	14 CD
AITCL	14 CD
MCL NGS	14 CD