NE&Y GLH HaemOnc WGS Eligibility & Sample Requirements - 2022

NHSE funded WGS analysis for a subset of patients with HaemOnc from Autumn 2020.

All patients (adult & paediatric):

All patients (adult and paediatric) with acute leukaemia are eligible. More specifically this table shows the eligible disease groups including their test code:

Disease Group	Test Code	Further Eligibility Criteria
AML	M80.1	
AL Other	M89.1	Includes undifferentiated acute leukaemia, leukaemia of ambiguous lineage and leukaemia of mixed lineage
BPDCN	M90.1	Blastic plasmacytoid dendritic cell neoplasm
ALL	M91.1	

HaemOnc patients who have exhausted all SOC testing or treatment M235.1:

This group of patients was added in February 2022 and allows a clinical assessment to be made and submission from this group of patients where WGS may add true clinical utility. We plan to manage these cases through the HaemOnc GTAB to ensure good clinical use of this referral category.

Paediatric patients:

Paediatric patients (≤25 years old) with most HaemOnc disease groups are eligible for WGS. See table below for eligible disease groups including their test code:

Disease Group	Test Code	Disease Group	Test Code
MDS	M82.6	**High Grade lymphoma**	M99.8
AA	M83.4	**Primary Mediastinal B Cell Lymphoma**	M100.4
CML	M84.11	**ALK Positive Large B Cell Lymphoma**	M101.4
MPN	M85.13	**Malt-Lymphoma**	M107.7
Mastocytosis	M86.3	**Paediatric Follicular Lymphoma**	M110.2
JMML	M88.2	**T Cell Non-Hodgkin Lymphoma**	M111.5
MDS/MPN	M224.4	**ALK Negative Anaplastic Large Cell Lymphoma (Inc Cutaneous Subtypes)**	M112.5
Lymphoma	M93.3	**ALK Positive Anaplastic Large Cell Lymphoma**	M182.3
B-cell Non-Hodgkin lymphoma	M95.7	**NK Cell/Gamma-Delta T Cell Lymphoma**	M115.2
Burkitt	M96.7	**Hepatosplenic T Cell Lymphoma**	M116.3
Burkitt like	M97.2	**Histiocytosis**	M117.16
Large B Cell Like Lymphoma with IRF4 Rearrangement	M98.2		

Where patients may not benefit from this testing (for example those patients whose management is purely palliative, or where the patient dies soon after diagnosis) submitting sample may not be appropriate.

Sample Requirements:

AML

Tumour:

Peripheral blood (PB) or bone marrow aspirate (BMA) in EDTA with ≥20% blasts

This can be any blast percentage if an AML defining genetic abnormality is present

CSF/Ascitic fluid/Pleural fluid is permissible if infiltrated with ≥20% blasts, and when PB/BMA are not available

Please include the white cell count (WCC) of the sample sent

Germline:

Skin biopsy (punch biopsy 4mm^3) for direct DNA extraction from fibroblasts

Skin biopsy (punch biopsy 4mm^3) for DNA extraction from cultured fibroblasts

Saliva, 5 days post treatment (two doses of anthracycline (or equivalent)), collected into a specialised saliva sample collection kit.

PB or BMA when appropriate genetic MRD marker (*NPM1, RUNX1-RUNX1T1*) is <0.1%

ALL

Tumour:

Peripheral blood (PB) or bone marrow aspirate (BMA) in EDTA with ≥30% blasts

CSF/Ascitic fluid/Pleural fluid is permissible if infiltrated with ≥30% blasts, and when PB/BMA are not available

Please include the white cell count (WCC) of the sample sent

Germline:

Skin biopsy (punch biopsy 4mm^3) for direct DNA extraction from fibroblasts

Skin biopsy (punch biopsy 4mm^3) for DNA extraction from cultured fibroblasts

Saliva, 5 days post treatment (two doses of anthracycline (or equivalent)), collected into a specialised saliva sample collection kit.

PB or BMA when appropriate genetic MRD marker (*IGH/TCR, BCR-ABL1*) is <0.1%

Paediatric cases

Tumour:

Peripheral blood (PB) or bone marrow aspirate (BMA) in EDTA with ≥30% blasts

Tumour tissue biopsy with ≥30% tumour burden (this maybe calculated using the non-lymphoid cell count or other method depending on the disease group).

Germline:

Skin biopsy (punch biopsy 4mm^3) for direct DNA extraction from fibroblasts

Skin biopsy (punch biopsy 4mm^3) for DNA extraction from cultured fibroblasts

Saliva, 5 days post treatment (two doses of anthracycline (or equivalent)), collected into a specialised saliva sample collection kit.

PB or BMA when appropriate genetic MRD marker is <0.1%