WGS Pathway:
Haem Onc

Patient with clinical suspicion of ALL or AML

Bone marrow biopsy (somatic sample) and skin punch biopsy (germline sample) at routine diagnostic appointment

Germline Sample as a 4mm gauge skin punch biopsy in universal container immersed in sterile saline

Aspirate needle position 1
- Direct spread morphology 0.25ml Direct to microscope slides.
- Diagnostic flow cytometry 1 ml of BMA in EDTA
- Diagnostic cytogenetics 2ml of BMA in culture medium
- Molecular Genetics and WGS 2ml of BMA in a EDTA

Samples sent to Haem/appropriate Lab with standard SIHMDS BHODS form

Haem Lab confirms Flow

bone marrow aspirate or peripheral blood only when no BMA is available
- AML >=20% blasts morphology
- ALL/ALAL >=30% blasts morphology

Keep samples together

Haem Lab dispatches both germline and somatic samples to SW GLH

Clinical Team Discusses WGS with patient

Materials provided by NHSE
- *Patient Information for Cancer*
- *Patient Information for Cancer - Easy Read*

- Store at 4°
- Transport required within 72 hours of sample taken

Clinician/oncologist WGS Cancer TOF

DNA extracted from both samples

GMS Test Order Form

SWGLH is open from Monday to Saturday (Saturday receive transport/courier only)

Clinician/oncologist/CNS WGS Cancer RoD

Scan each TOF and RoD as separate documents and email nbn-tr.bglexportscientist@nhs.net

Record of Discussion
- Confirms a discussion about the test has taken place
- Confirms if an offer for research access (NGRL) has taken place

- Copy of RoD for patient
- File original RoD in notes

- Results returned via HiLIS to clinical team
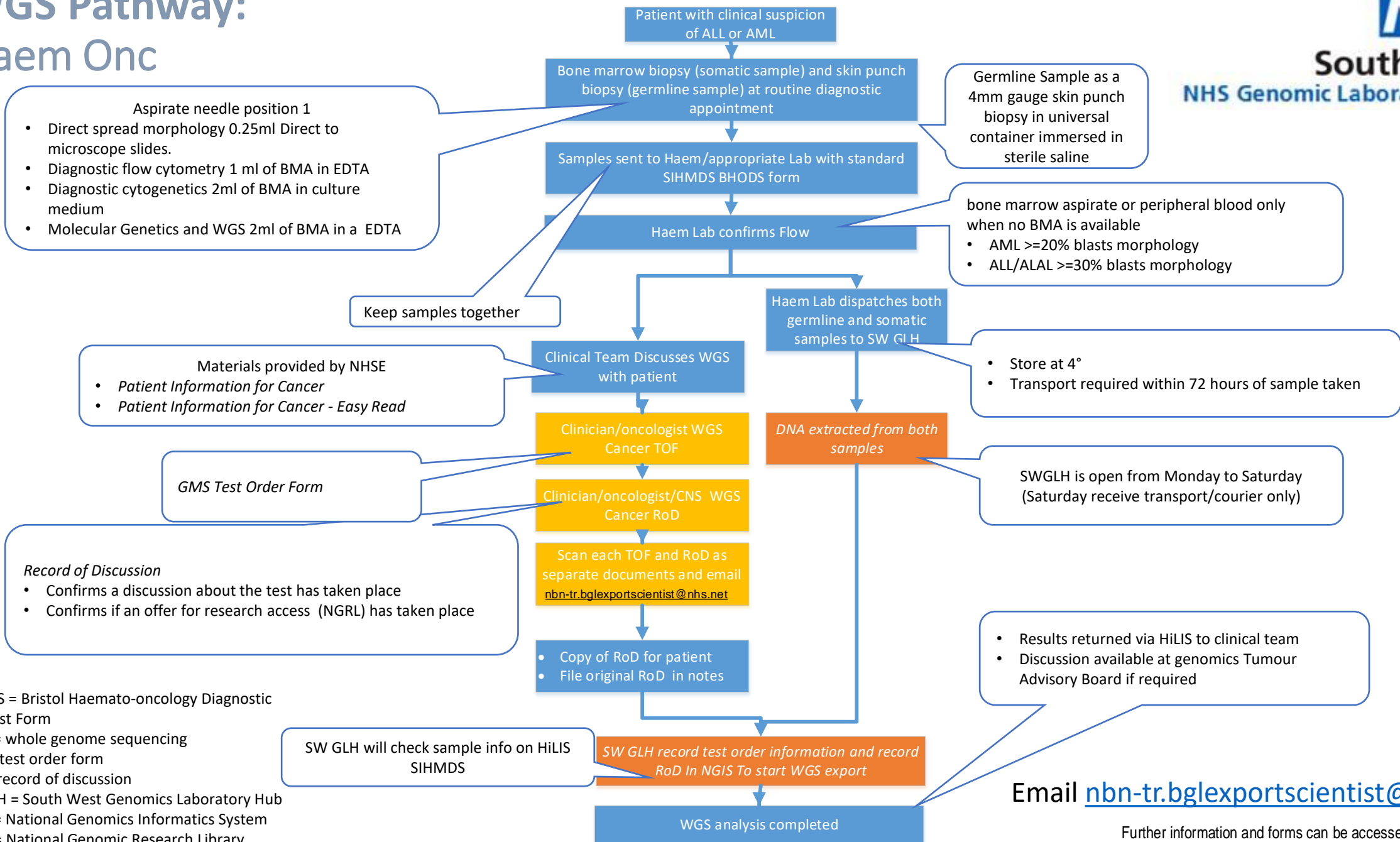- Discussion available at genomics Tumour Advisory Board if required

BHODS = Bristol Haemato-oncology Diagnostic Request Form
WGS = whole genome sequencing
TOF = test order form
RoD= record of discussion
SWGLH = South West Genomics Laboratory Hub
NGIS = National Genomics Informatics System
NGRL= National Genomic Research Library

SW GLH will check sample info on HiLIS SIHMDS

SW GLH record test order information and record RoD In NGIS To start WGS export

WGS analysis completed

Email nbn-tr.bglexportscientist@nhs.net

Further information and forms can be accessed at
https://www.nbt.nhs.uk/south-west-genomic-laboratory-hub