LABORATORY REPORT

Redcliffe labs

Patient NAME			
DOB/Age/Gender		Report STATUS	:
Patient ID / UHID		Barcode NO	:
Referred BY		Sample Type	:
Sample Collected		Report Date	:

Acute Leukemia MRD Panel

Flowcytometry-Acute Leukemia MRD Panel

MRD Analysis done by Flow Cytometry

Markers used are CD7, CD13, CD15, CD19, CD33, CD34, CD38, CD45, CD117, CD123, HLADR in 8 colour panel in various combinations.

CLINICAL DETAILS: AML on treatment

Previous Immunophenotype: AML

Sample time point: Not known

SPECIMEN: Bone marrow sample showed TLC = 17,870 cells/µl.

FLOW CYTOMETRY ANALYSIS:

Instrument / Software: BD FACS Canto / BD FACS DIVA

Gating Strategy: 8-colour Flow Cytometry using forward-side scatter and CD45-side scatter analysis.

Cell Preparation Method: Lyse - Wash -Stain - Wash

Gating strategy: SSC Vs CD45 and FSC Vs SSC

Total events acquired = 19,63,164 cells / tube

CD34 = 21.5 %

Abnormal events = 3,19,555

AML residual blasts = 19.9% of all Leukocytes (expressing CD7, CD33, CD34, CD117, CD123, HLADR- Dim)

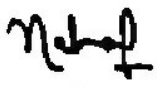
IMPRESSION: AML MRD = 19.9 %

Note :- As per ELN 2018 recommendation, AML MRD threshold for clinical significance is considered to be ≥ 0.1%

Please correlate with previous hematological, immunophenotypic reports, detailed clinical/ancillary inputs and exact day of chemotherapy. LOQ of the assay is 0.003 % .

Comment: First pull bone marrow aspirate is recommended sample for MRD testing as subsequent pulls may show hemodilution.

Flow cytometric detection (FCM) of MRD is based on detection of abnormal population compared to normal maturation pattern and the identification of immunophenotypic combinations expressed on leukemic cells but not on normal hematopoietic cells-



Dr. Neha Prabhakar
MBBS, MD(Pathology)
DMC Registration No.- 49637

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leukemia associated immunophenotypes (LAIPs).

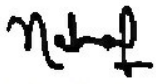
FCM has emerged as the most promising methods for detecting submicroscopic levels of leukemia. Prospective studies in large series of patients have demonstrated a strong correlation between MRD levels during clinical remission and treatment outcome. Therefore, MRD assays can be reliably used to assess early response to treatment and predict relapse.

Various groups have different thresholds for AML MRD detection, most lying between 0.01-1%, as it is technically more challenging due to heterogenous blast population and unstable phenotypes. A positive MRD result indicates an increased risk of relapse for the patient

Note:
All investigations have their limitations which are imposed by the limits of sensitivity and specificity of individual assay procedures as well as the quality of the specimen received by Oncquest. Isolated laboratory investigations never confirm the final diagnosis of the disease. They only help in arriving at a diagnosis in conjunction with clinical presentation and other related investigations.

NOTE- **This test is processed at Redcliffe's partnered lab.

*** End Of Report ***



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2. It is to be presumed that the tests performed pertain to the specimen/sample attributed to the Customer's name or identification. It is presumed that the verification particulars have been cleared out by the customer or his/her representation at the point of generation of said specimen / sample. It is hereby clarified that the reports furnished are restricted solely to the given specimen only.

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