

MINIMAL RESIDUAL DISEASE (MRD) ANALYSIS: B ALL

FLOW CYTOMETRY

Instrument: BD FACS Canto II **Software:** BD FACS DIVA

CD Markers used in this assay: FREE TEXT

Specimen: FREE TEXT

Clinical History: FREE TEXT

Sample Time Point: FREE TEXT

Previous Immunophenotype: FREE TEXT

Gating Strategy: FREE TEXT

Total Events acquired per tube: FREE TEXT

Total nucleated events (Syto 16+): FREE TEXT

CD19 positive events: FREE TEXT

Atypical/abnormal events: FREE TEXT

Impression: FREE TEXT

Comments:

Interpretation

- >0.01% in 2 LAIP: MRD +ve (High risk)
- <0.01% in at least 2 LAIP: MRD neg (Low risk)
- >0.01% in 1 LAIP only: Indeterminate
- Cluster of <50 cells: Indeterminate
- Could not acquire 500,000 cells: Indeterminate

Flow cytometric detection of MRD is based on the identification of immunophenotypic combinations expressed on leukemic cells but not on normal hematopoietic cells. Minimal residual disease is gaining importance nowadays both for therapy efficacy follow up and relapse risk estimation. Flow cytometry has emerged as one of the most promising methods for detecting submicroscopic levels of leukemia.

Disclaimer:

False negatives due to immunophenotypic modulation induced by drug therapy, loss of expression or loss of minor population cannot be ruled out. Flow cytometric findings should be used in conjunction with clinical findings and other related investigations to arrive at the final diagnosis.