



Minimal Residual Disease (MRD)

What is MRD testing?

Minimal Residual Disease (MRD) is the name given to small numbers of leukemic (Cancerous) cells that remain in the person during treatment, or after treatment when the patient is in remission. Leukemic cells presence is the major cause of relapse in cancer including multiple myeloma and leukemia.

Why MRD testing is being used?

MRD testing has several important roles:

- Determining whether treatment has eradicated the Leukemia, myeloma or whether traces remain,
- Comparing the efficacy of different treatments,
- Monitoring patient remission status as well as detecting recurrence of the myeloma,
- Choosing the treatment that will best meet those needs.

In which types of cancer, MRD test is being done?

These are the types of cancers in which MRD testing is being done

- Acute Lymphoblastic Leukemia (ALL): B-ALL, T-ALL
- Acute Myeloid Leukemia (AML)
- Chronic Lymphocytic Leukemia (CLL)
- Chronic Myelogenous Leukemia (CML)

Which Techniques are used for MRD testing?

- Flowcytometry
- Real Time PCR
- Next Generation Sequencing (Not available at Oncquest)

What is the Sensitivity and Specificity of MRD testing?

Flowcytometry MRD test's Clinical Sensitivity is 0.01% and PCR MRD test's sensitivity is 0.001%

Commercial Information:

S. No.	Test Name	Test Code	MRP	Technique	Specimen	TAT / Reported on
1	Acute Leukaemia-MRD Panel (Flowcytometry)	SP10075	11500	Flowcytometry	3 - 4 ml. of heparinized bone marrow. Send immediately by courier at 20-25°C. DO NOT FREEZE. Specify date & time of sample withdrawn & Initial diagnosis, immunophenotype, time point of MRD evaluation on TRF.	3 rd working day if received before 1400 hrs.
2	Multiple Myeloma MRD panel	SP10107	11500	Flowcytometry		
3	CLL MRD panel	SP10108	11500	Flowcytometry		
4	Diagnostic ALCP & MRD Panel	SP10104	19250	Flowcytometry	2-3ml Bone marrow in Heparin	3 rd working day if received before 1300hrs
5	BCR/ABL Quantitative RT PCR with Breakpoint Analysis (MRD)	SMO10014	8250	Real Time PCR	5-6 ml whole blood /3-4 ml bone marrow in 2 EDTA Vacutainers.	4 th Working Day if received before 1400 Hrs.
6	Translocation BCR/ABL Quant. RTPCR (MRD)	SMO10013	7250	Real Time PCR	2 ml Bone Marrow or 5 - 6 ml whole blood in 2 EDTA Vacutainers. Send immediately by courier in cold gel packs	
7	Translocation PML/RARa Quant. RTPCR (MRD)	SMO10015	7850	Real Time PCR		