

8 important ways MRD testing can help in the management of your blood cancer

Measurable residual disease (MRD) testing is a powerful tool that can provide doctors with deep insight that informs the treatment of patients with blood cancers.

Learn what knowing your MRD status can mean for you or your loved one.

Inform Your Treatment Goals

1

What is measurable residual disease (MRD)?

MRD (also called minimal residual disease) refers to the small number of cancer cells that may remain in the body during or after treatment in patients with blood cancers, including acute lymphoblastic leukemia, acute myeloid leukemia, chronic lymphocytic leukemia, chronic myeloid leukemia, multiple myeloma, and non-Hodgkin's lymphoma.^{1,2}

2

What can an MRD-negative status mean for me?

Patients who achieve an MRD-negative status after treatment (meaning no cancer cells were found) have been shown to live longer without their disease returning.²⁻⁷ However, finding the optimal balance between treatment and quality of life is important.

3

Can MRD testing help my doctor personalize my treatment?

When MRD results are considered along with knowledge of your specific case, they can provide a very detailed understanding of your current disease level. This personalized information can help you and your doctor tailor your treatment plan to help better fight your disease.^{4,5,8-10}

Assess and Track Your Progress

4

Can MRD results be used to assess my response to therapy?

Reliable and precise MRD testing can give your doctor confidence in assessing your response to treatment. Knowing how much residual disease is still in your body could allow your doctor to better tailor your treatment plan.^{5,8-10}

5

Can MRD results be used to track my disease over time?

Monitoring MRD throughout your course of care can provide important insight into the status of your disease. Tracking changes in MRD over time allows you and your doctor to determine whether a change in your plan is needed to align with your care goals.^{5,8-10}

6

Can an MRD test detect early signs of returning disease?

Even if you are in remission, a small number of cancer cells can remain in your body and may cause your cancer to return. Tracking MRD can help detect the return of cancer before physical signs and symptoms arise.^{6,9} Early detection of returning disease may allow you and your physician to respond quickly to fight your disease.

Gain Confidence and Reassurance

7

Can MRD testing be used to monitor my remission?

While in remission, you may feel worried or fearful that your cancer may come back, even if you aren't experiencing any symptoms. Your physician can use MRD testing to see if any cancer cells are returning.^{4,9} Achieving an MRD-negative result may provide reassurance to you.

8

Are there different types of tests that measure MRD?

There are a variety of tests that can be used to measure MRD. The more sensitive a test is, the better it is at finding even just a few cancer cells among many normal ones. Highly sensitive MRD tests are now available that can detect a single cancer cell among 1 million healthy cells.^{5,8,10,11} With this level of deep sensitivity, you and your doctor can be confident you know how much MRD is present.



Talk with your doctor about highly sensitive MRD testing options and know your MRD status.

References: 1. National Cancer Institute. NCI Dictionary of Cancer Terms. Minimal residual disease. National Cancer Institute. Accessed April 13, 2020. <https://www.cancer.gov/publications/dictionaries/cancer-terms/def/797386>. 2. Berry DA, Zhou S, Higley H, et al. Association of minimal residual disease with clinical outcome in pediatric and adult acute lymphoblastic leukemia: a meta-analysis [published online July 13, 2017]. *JAMA Oncol.* 2017;3(7):e170580. 3. Wood B, Wu D, Crossley B, et al. Measurable residual disease detection by high-throughput sequencing improves risk stratification for pediatric B-ALL. *Blood.* 2018;131(12):1350-1359. 4. Martinez-Lopez J, Lahuerta JJ, Pepin F, et al. Prognostic value of deep sequencing method for minimal residual disease detection in multiple myeloma. *Blood.* 2014;123(20):3073-3079. 5. Munshi NC, Avet-Loiseau H, Rawstron AC, et al. Association of minimal residual disease with superior survival outcomes in patients with multiple myeloma: a meta-analysis. *JAMA Oncol.* 2017;3(1):28-35. 6. Thompson PA, Srivastava J, Peterson C, et al. Minimal residual disease undetectable by next-generation sequencing predicts improved outcome in CLL after chemoimmunotherapy. *Blood.* 2019;134(22):1951-1959. 7. Molica S, Giannarelli D, Montserrat E. Minimal residual disease and survival outcomes in patients with chronic lymphocytic leukemia: a systematic review and meta-analysis. *Clin Lymphoma Myeloma Leuk.* 2019;19(7):423-430. 8. Herrera AE, Armand P. Minimal residual disease assessment in lymphoma: methods and applications. *J Clin Oncol.* 2017;35(34):3877-3887. 9. Chen X, Wood BL. How do we measure MRD in ALL and how should measurements affect decisions. Re: treatment and prognosis? *Best Pract Res Clin Haematol.* 2017;30(3):237-248. 10. Anderson KC, Auclair D, Kelloff GJ, et al. The role of minimal residual disease testing in myeloma treatment selection and drug development: current value and future applications. *Clin Cancer Res.* 2017;23(15):3980-3993. 11. van Dongen JJM, van der Velden VHJ, Brüggemann M, Orfao A. Minimal residual disease diagnostics in acute lymphoblastic leukemia: need for sensitive, fast, and standardized technologies. *Blood.* 2015;125(26):3996-4009.