

Introduction

- Right now we don't see any cancer cells, but they could be under what we can detect. And so there could be those small little cancer cells just kind of lingering around that we can't see.
- I want to know that all those cancer cells are really gone.
- MRD is the abbreviation for minimal residual disease or measurable residual disease
- I have so many questions, I'm a leukemia survivor myself, and I really wanted to see, you know, what this was all about.
- If you cannot see the cancer, that means that the patient could potentially be on the path towards a cure...
- I'm really excited to sit down with Dr. Landgren and get these questions answered for myself and then for other cancer patients.

MRD & Me**Elissa Baldwin, MA**

*The Leukemia & Lymphoma Society
AML Survivor*

Hi, Dr. Landgren. Thank you so much for being here with me today. I just saw you speak about MRD and I'm so excited to hear more about it. I'm a leukemia survivor, and I just have some questions for you.

C. Ola Landgren, MD, PhD

*Sylvester Comprehensive Cancer Center
University of Miami Health System*

Well, thank you very much. Yes, of course. Go ahead.

Elissa

I was found to be in complete remission. And my doctor said though that after the testing, there might be cancer cells that are under the detectable levels. Is that what MRD is looking for to see if there are still cells kind of hanging around?

Dr. Landgren

Any test that we use in our clinics, unfortunately could have some limitations. That's true for any test we do. For example, if the test can rule out one cell in, in a million, if there is still one cell in a hundred million or one cell in a billion, the test would not be able to rule that out. But if you do that sensitive test that is available and you do it multiple times, if it continues to show negative results over time, that will deliver a sustained MRD negativity. And that is the path towards a true cure.

Elissa

If somebody was MRD positive, I would think that would be kind of anxiety producing, right? What are you saying to the patients? Is that something that is much of a concern? Or are we just continuing to monitor or change the treatment course?

MRD & Me

Dr. Landgren

That's a very important question you are addressing. There are patients that have just a little bit detectable disease, they would qualify as MRD positive. And there are patients who do unfortunately have quite a lot of disease left, although the therapy has been completed per the initial plan. That's usually a very different setting. There are also patients that can achieve MRD negativity that unfortunately shortly after turns positive. And then there are patients that turn negative and it just stays negative for a very long time, ideally forever. So all these different scenarios require very individualized approaches. I think the high points to address your question is that having just a little bit of disease versus having a lot of disease is different. So I think the individual patient has to talk to his or her doctor and see what's the best route in that given situation.

Elissa

If they're negative or positive that could potentially determine the treatment course, maybe changing it?

Dr. Landgren

That is that's exactly how MRD testing probably will be for all the blood diseases going forward. The missing piece right now is that we don't have very many studies consistently showing that a decision made based MRD is really associated with the right clinical outcome. So we just need to do a few more studies to make sure that MRD negativity means the same thing in, in every given setting or in defined given settings.

Elissa

Now my biggest concern as an AML patient is I want to make sure that I am staying in complete remission now that I've gotten there. What are you doing for that as far as to continue to monitor, to make sure that a patient is staying in remission?

Dr. Landgren

So again, different diseases, different blood malignancies are managed a little bit differently. So for patients with acute leukemia, typically the therapy is completed and then the patient continues being tested for MRD testing over time. And that is how sustained MRD negativity is confirmed. For other diseases – I mentioned multiple myeloma – patients many times are put on maintenance therapies. So the maintenance therapy could go on and the MRD testing could be repeated over time.

Elissa

Now I'm curious how it all works then. So how would, if a doctor wanted to do MRD testing, how would it work?

Dr. Landgren

Patient could go and do a blood draw, or they could go and do a biopsy of a bone marrow, for example. So the procedures are sort of standard, but it's really what happens with the sample that is unique to these particular tests.

MRD & Me

Elissa

Okay. Are doctors using the term minimal or measurable residual disease when they're telling patients? Would I know if I was getting a test?

Dr. Landgren

I think that there probably is a little bit of both there. But I think doctors probably should communicate with the newer terminologies if patients are tested with these tests and not only say we have done the blood test or bone marrow test.

So I think if patients have a doctor that is sending out blood test or bone marrow biopsy test, it would be appropriate to ask the doctor if MRD tests have been done and what they show.

Elissa

Now do all oncologists and cancer centers do MRD testing?

Dr. Landgren

At the current time here in the United States, I think most of the MRD testing that's done is done at the bigger centers. Still the tests are available for all the doctors. But I do think as the field moves forward and there is data to support, more and more doctors will use it. I think, with better tests that are ideally blood-based, I think all doctors in the future will use MRD testing.

For patients that go to doctors that don't have access to this, I think a good option for now would be that the patient could go to one of the bigger centers for a second opinion and they could do MRD testing and then the patient could go back and be treated and followed by the local doctor.

Elissa

Dr. Landgren, what are you really excited about with MRD testing?

Dr. Landgren

I am very excited about testing for two major reasons. The first is that we now see that more and more of the new drugs can lead to MRD negativity. I think the field overall for all the blood malignancies will soon have MRD as a regulatory endpoint for drug approval. And what that means is that a trial that with older ways of measuring success that took 10 years would read out much sooner. So a drug could be approved in one or two years instead of 10 years. And that's fantastic for patients. All the new drugs can come faster to patients. I'm also very, very excited as a treating physician that more and more of my patients can achieve MRD negativity. They can sustain their MRD negativity. I think that patients that have a sustained MRD negativity over an extended period of time, that is the path towards a cure.

Elissa

That's wonderful.

Well, thank you so much, Dr. Landgren for talking to me today. I'm excited to see that, we can know if we need to change our treatment or if we're really staying in remission. So this was really great. So thank you so much for talking with me today.

MRD & Me

Dr. Landgren

I'm really very excited for you. Congratulations being an AML survivor and thank you so much for having me.

Narrator

It's important to talk with your healthcare team to find out if MRD testing is right for you.

For more information about MRD, please contact The Leukemia & Lymphoma Society at 1-800-955-4572 or visit us at [LLS.org](https://www.lls.org).