



# **Transcript Details**

This is a transcript of an educational program. Details about the program and additional media formats for the program are accessible by visiting: https://reachmd.com/programs/project-oncology/pathways-personalized-medicine-early-breast-cancer-treatment/12435/

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Pathways to Personalized Medicine for Early Breast Cancer Treatment

## Announcer:

Welcome to *Project Oncology* on ReachMD. On this episode, sponsored by Lilly, we're joined by Dr. Erika Hamilton, who's the Director of the Breast Cancer and Gynecologic Cancer Research Program at Sarah Cannon Research Institute in Tennessee. Additionally, she is a partner with Tennessee Oncology, PLLC. Dr. Hamilton is here to share subtypes of early-stage breast cancer and the shift toward personalized approaches to breast cancer treatment. Let's hear from Dr. Hamilton now.

#### Dr. Hamilton:

We're doing a lot of work in really trying to personalize the treatment of breast cancer. So not in a one-size-fits-all cookie-cutter approach, but kind of giving the right size treatment to the right patient.

And so we generally think about there really being three different types of breast cancer; hormone receptor positive breast cancer. So it expresses the estrogen receptor or the progesterone receptor. Then HER-2 positive breast cancer is the second type. And then the third type is called triple negative. And the fact that it doesn't express the estrogen, progesterone, or HER-2 on the cell surface. And so probably the area that we're most advanced and truly personalizing treatment is in hormone receptor positive breast cancer. This is the most common type of breast cancer.

So 70 percent of women that are diagnosed with breast cancer will be hormonally driven. And so what we've learned is that not everyone needs chemotherapy. We had, you know, in general been looking at tumor size, how fast the cancer cells may be growing under the microscope how strongly they expressed the estrogen receptor to make our decisions about whether somebody needed chemotherapy or not in conjunction with tumor size and whether the cancer was smart enough to get to the lymph nodes.

But now we have these genomic assays that help us make our decisions with more information and with more accuracy. You may have heard of these. There's a variety of them. Some of them are things like MammaPrint or Oncotype or Prosigna. And what we do is we send a small piece of the tumor off, and they look at genes across the cancer, and compare to people that are in the database. And they tell us whether the cancer has a low, an intermediate, or a high likelihood of coming back. And so what this enables us to do is to spare many patients chemotherapy that aren't really going to be helped by it while still giving the chemotherapy to those that have a high risk of their cancer coming back.

And what's particularly exciting is a couple of years ago, we had a large trial called TAILORx, and it looked at a lot of this based on premenopausal status or postmenopausal status, and exactly what number on this Oncotype scale can we omit chemotherapy for. And we can limit chemotherapy for premenopausal patients with lower Oncotype scores. But for postmenopausal patients, we can safely omit chemotherapy without influencing long-term outcome or, you know, affecting the chance of the cancer coming back up to an Oncotype type score of 25. So this really translates to thousands of women not needing to receive chemotherapy in the United States compared to those that used to.

And so we're continuing this in triple negative and in early breast cancer in a little bit of a different way. Some risk stratifications for HER-2 positive. And then also we're doing a lot of testing of immunotherapy in the triple negative realm, but we're very excited to keep tailoring this and getting the one size treatment for each patient.

#### Announcer:

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