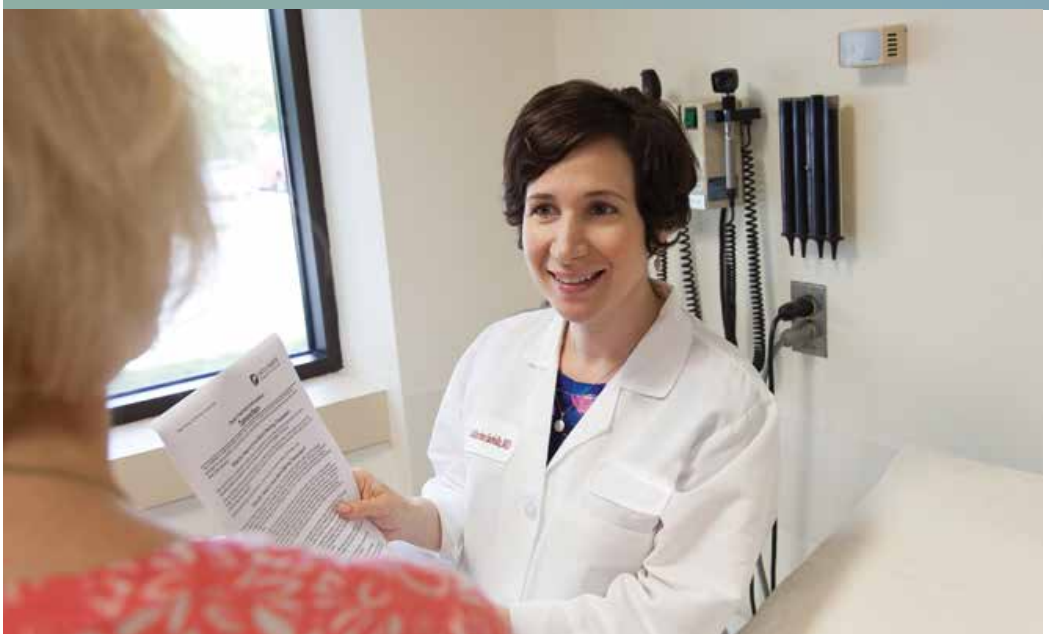
Chemoprevention: Chemotherapy to Prevent Rather Than Treat Breast Cancer

Tamoxifen is considered highly effective with minimal side-effects



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> **Catherine Iasiello, MD**
> Holy Family Hospital,
> Oncologist

At Dana Farber Community Cancer Care located on the campus of Holy Family Hospital in Methuen, Oncologist Catherine Iasiello, MD explains the use of anti-hormonal chemoprevention for patients at high risk for developing breast cancer.

We often hear about chemotherapy being used to treat cancer, but most people are not aware that it can also be used to prevent cancer in patients with non-cancerous lesions considered at high risk for becoming cancer.

Chemotherapy prescribed in this manner is called chemoprevention and it is only used to prevent breast cancer at this time.

These chemoprevention therapies are anti-hormonal therapies, which include Tamoxifen, Raloxifene, and aromatase inhibitors such as anastrozole (Arimidex), exemestane (Aromasin), and letrozole (Femara).

Oncologist Catherine Iasiello, MD from Dana Farber Community Cancer Care in Methuen, located on the campus of Holy Family Hospital, says chemoprevention can be highly effective and it has minimal side effects, yet she sees few referrals for it from primary care physicians or surgeons.

"I am hoping to get the word out about chemoprevention so more primary care physicians and surgeons are aware this can be an option for some of their patients at high risk for developing breast cancer," said Dr. Iasiello.

According to Dr. Iasiello, oncologists typically see patients after they have had surgery.

Generally, a patient first has a screening mammogram. If it reveals a possible lesion, the patient may be called back for additional images. If a lesion is still suspected, biopsy will be recommended. If cancer is found, a surgeon will remove the lesion and then the patient will see an oncologist. But if the biopsy comes back negative, meaning it is not cancer, that does not always mean the patient is out of the woods.

"If biopsy reveals lobular carcinoma in situ (LCIS), atypical ductal hyperplasia or atypical lobular hyperplasia, those tissues are not cancer, but they are considered to be at high risk for becoming cancer," said Dr. Iasiello. "At that point, if we have been successful in getting the word out, primary care physicians and surgeons have an opportunity to call an oncologist to talk about chemoprevention."

Chemoprevention is not prescribed for everyone because each patient's risk factors are examined.

The Gail model is a tool doctors use to predict a patient's risk for developing breast cancer based on age, reproductive history, family history, and biopsy results. But other factors such a history of blood clots are taken into consideration.

"A lot goes into the decision to prescribe chemoprevention," said Dr. Iasiello. "Each drug has advantages and disadvantages. I use Tamoxifen the most because it has been around the longest so there is a lot of data on its use."

"We now know that five years is adequate treatment, or 10 years for women considered high risk," said Dr. Iasiello, who has seen many things change, and some things stay the same during her years as a practicing oncologist.

Since she began practice the types of screenings have changed, as well as screening guidelines, how risk is categorized, availability of gene receptor tests and molecular studies, targeted therapies that turn off proteins, myriad of anti-estrogen drugs, and BRCA 1 and BRCA 2 screenings for family members.

But there is still fear.

"Patients with a breast cancer diagnosis are just as scared now as they were when I began practice despite all the strides we have made in breast cancer treatment and care," said Dr. Iasiello. "But the stigma is gone. There is more awareness and patients know they do not have to go through it alone."

Advances in diagnosis and treatment of cancer bring hope.

"I became an oncologist and have remained an oncologist because of success stories. Cancer does not have to be hopeless. Everything is not terminal," said Dr. Iasiello. "For instance, breast cancer that has metastasized to bone is now treated as a chronic disease. Treatment with Tamoxifen can offer a 15 year life expectancy, and 15 years for a mother with young children can mean all the difference in the world."

Prevention of breast cancer is key.

Dr. Iasiello suggests that women begin mammograms as early as they can. Some insurance companies now cover them as early as age 35. Some women are afraid of radiation from mammograms but she feels the amount of radiation is so small that the risk does not outweigh the benefit of early detection.

A patient's age should not determine whether or not they can have chemoprevention.

"Age is not a deterrent to chemoprevention, but health conditions that accompany age can be," said Dr. Iasiello.

3-D Mammography for More Accurate Breast Cancer Detection

Holy Family Hospital is now offering three-dimensional mammography for more accurate detection of breast cancer.

This technology, known as breast tomosynthesis or 3-D tomo, is considered to be superior to traditional two-dimensional mammography, particularly for younger women with more glandular breast tissue and less fat, and women with dense breast tissue, cysts or calcifications.

Traditional mammography equipment is stationary and the x-ray source takes a picture through the breast. During 3-D breast tomosynthesis, the x-ray arm moves in an arc across the body, essentially taking a 3-D movie of the breast, which can be looked at frame by frame to view how tissue looks all the way through the breast.

A 3-D image reveals whether calcification is on the skin or within the breast, which is important because skin calcifications are benign. A 3-D image can also show whether a mass has irregular borders, or is a round cyst that would not require a biopsy.

Images from breast tomosynthesis provide the radiologists who read them an added degree of confidence, and reduce anxiety for patients who, with traditional two-dimensional mammography, may have been called back for additional images.

"When the hospital invested in 3-D tomosynthesis it made an investment in quality and improved patient care," said Arthur Zerbey, MD, chief of radiology. "Breast tomosynthesis in conjunction with other advanced technologies such as breast MRI and MRI guided biopsy, offers a comprehensive breast health program, from routine screenings to testing and treatment."

Dana Farber Community Cancer Care

Dana-Farber Community Cancer Care (DFCCC) opened on June 1st at Holy Family Hospital's Methuen campus. This new site is an extension of Steward and Dana-Farber's oncology affiliation, which currently includes Dana-Farber Cancer Institute at St. Elizabeth's Medical Center in Brighton, MA, and all DFCCC physician practices.

"This is a significant milestone for our local community and we are very pleased to welcome the Dana-Farber Community Cancer Care team to our campus," said Joseph Roach, president of Holy Family Hospital in Methuen and Haverhill. "Our patients and their families who are facing this disease now have access to Dana-Farber's highly regarded hematology/oncology care right here, at Holy Family Hospital, where many patients currently get primary care and other specialty care."

"We are very pleased to offer this option for patients with cancer in the Merrimack Valley," said Dr. Andrew Norden, chief medical officer of DFCCC. "At the new site, Steward patients are able to get sophisticated cancer care in a convenient, community setting closer to home."

Holy Family Hospital's Medical Oncologists Drs. Laura Caprario and Ankur Mehta have joined the DFCCC team and continue to provide hematology/oncology care to patients, full-time, along with Dr. Catherine Iasiello from DFCCC. Staff in the newly renovated unit at Holy Family Methuen follow the same policies, procedures, and quality standards used throughout DFCCC's network of care, and patients have easy access to advanced care and resources, such as clinical trials, at Dana-Farber's headquarters in Boston and locations throughout New England, if needed.