Treatment for breast cancer is multidisciplinary. The primary physicians with whom you may meet as part of your care are the medical oncologist, the breast surgeon, and often the radiation oncologist. A list of these specialty physicians will be provided to you. Each provider works with a team of caregivers to ensure that every patient receives high quality, personalized, breast cancer care. The medical oncologist specializes in “systemic therapy”, or medications that treat the whole body. For women with early stage breast cancer, systemic therapy is often recommended to provide the best opportunity to prevent breast cancer from returning.

**SYSTEMIC THERAPY**

Depending on the specific characteristics of your cancer, your medical oncologist may prescribe systemic therapy. Systemic therapy can be hormone pills, IV chemotherapy, antibody therapy (also called “immunotherapy”), and oral chemotherapy; sometimes patients receive more than one type of systemic therapy. Systemic therapy can happen before surgery (called “neoadjuvant therapy”) or after surgery (“adjuvant therapy”). If appropriate, your breast surgeon and medical oncologist will discuss the benefits of neoadjuvant and adjuvant therapy with you. As a National Comprehensive Cancer Network (NCCN) Member Institution, we are dedicated to following the treatment guidelines that have been shown to be most effective. We also have a variety of clinical trials that will help us find better ways to treat breast cancer.

Your medical oncologist will recommend what treatment types and regimens are best for you. The information used to make these decisions include: the location of the cancer, the size of the cancer, the type of cancer, whether the cancer is invasive, the grade of the cancer (a measure of its aggressiveness), prognostic factors such as hormone receptors and HER2 status, and lymph node involvement. A person’s overall health, age, and other medical problems are also important in determining systemic treatment recommendations.
Depending on the features of your breast cancer, your medical oncologist may also order an Oncotype DX® test. The test may give patients and their doctors more information about their specific tumor and allows them to create a more personalized treatment plan. Many times, the Oncotype DX® test is used to determine whether or not chemotherapy will be helpful. The test results can take up to 3 weeks to return, and you will meet with your medical oncologist to review the results.

PRIOR TO STARTING THERAPY

Additional tests that may be necessary prior to starting any type of systemic therapy are lab tests (blood work), radiographic studies such as CT scans, PET scans, and bone scans (discussed in chapter 2), and evaluation of your heart via ultrasound (a test called an “echocardiogram”). Additional tests may also be necessary depending on the specific patient.

You may also require a Port-a-Cath Implantable Venous Access System (called a “port” for short). This device is implanted under the skin and is used to administer chemotherapy. In some patients, it may also be used to draw blood for lab tests. The port is most often placed by an interventional radiologist (an outpatient procedure), but it is occasionally placed by your breast surgeon at the time of your surgery.

If chemotherapy is recommended, you will have an educational session with one of our specialized medical oncology nurses. During this session, you will receive specific information about the chemotherapy drugs that have been prescribed, as well as any additional medications that you may need to take to help with side effects of the chemotherapy.

TYPES OF SYSTEMIC THERAPY

Chemotherapy.
Chemotherapy is medication that attacks fast-growing cells (like cancer cells). Chemotherapy may arrest the cell’s growth, cause the cell to die, or enable the patient’s own immune system to kill the cell. Unfortunately, normal cells that also divide rapidly (such as the bone marrow, lining of the gastrointestinal tract, hair follicles, and fingernails) may be affected by chemotherapy drugs. There are many different types of chemotherapy; different types of chemotherapy are used to treat different kinds of cancer (such as colon cancer, lung cancer, or breast cancer). Chemotherapy drugs can be given alone or in combinations; the way that a particular chemotherapy is administered is called a “regimen”.

Revised December 2017
Regimens are usually given through the vein (intravenous, or “IV”), but some oral formulations are occasionally used in certain situations. The potential side effects of chemotherapy drugs differ from agent (drug) to agent (drug); your medical oncologist and his/her team will discuss the specific side effects that you may experience.

**Hormone Therapy.**
Some cancer cells have hormone receptors (such as the estrogen receptor or the progesterone receptor) on their surface. These cells are fed by the hormones estrogen and progesterone. Hormone therapy works by depriving cancer cells of these hormones, in effect starving them. Hormone therapy may also be called “endocrine therapy” or “anti-hormone therapy”. Examples of hormone therapies are tamoxifen, letrozole (Femara®), and anastrozole (Arimidex®), all of which are pills that are taken once a day. The recommended length of time for hormone therapy is generally five or more years. Your doctor will give you a prescription for the pills, and you will be told how often to schedule your office visits so that you can be closely monitored while on hormone therapy.

**Immunotherapy.**
In certain types of cancers, bioengineered antibodies can be used to help fight the cancer; because antibodies are part of the immune system, this is called “immunotherapy”. Some examples of immunotherapies are trastuzumab (Herceptin®) and pertuzumab (Perjeta®), both of which are used in the treatment of specific “HER2-positive” type of breast cancer. Immunotherapies can be given in combination with chemotherapy or alone. Generally speaking, the side effects of immunotherapies tend to be less than the side effects of traditional chemotherapy.

**Targeted Therapy.**
There is a newer class of therapeutic agents called “targeted therapies”. They are “targeted” because they do not attack healthy, normal cells in the body. These new agents work to stop the growth of a tumor by interfering with abnormal cell signaling within a cancer cell. It is important to discuss all of the medications you are taking with your treatment team, because many targeted therapies interfere with other drugs.

**LOGISTICS OF CHEMOTHERAPY**
Chemotherapy is usually an outpatient treatment. It is given in the Infusion Center on the first floor of Smilow Cancer Hospital. The length of each treatment may differ depending on which medications you are receiving. Treatment is given in “cycles”, which are usually 1 to 4 weeks in duration. Your medical oncologist will tell you how many cycles are planned.
Chemotherapy treatments given by IV may last up to 6 hours, depending on the medicine used. Between treatments, your body recovers. Treatments most commonly last 3 to 6 months, but they can last for a year or even longer. Dress comfortably for chemotherapy treatment. You may want to bring layers of clothing to put on in case you get cold. You may have friends or family members in the Infusion Center with you. You may eat before and/or during chemotherapy. Some people read, watch TV, work or play on a computer, do word puzzles, or just rest.

**SUMMARY**

This information is a brief overview of the types of treatments that may be offered by your medical oncologist. You will be presented with more individualized written information on the medications and specific details that will help you during your treatment.

**Any questions can also be directed to your team at 203-200-2328**