2018 outcomes report: HER2/neu breast cancer

About 266,120 new cases of breast cancer will be diagnosed in 2018, according to the American Cancer Society. Breast cancer accounts for 15.3% of all new cancer cases. This type of cancer develops when cells begin to grow out of control. The cells form a tumor or lump that is sometimes felt or seen on X-ray. Ductal breast cancer begins in the ducts that carry milk to the nipple. Lobular breast cancer begins in the gland that makes breast milk. Cancer spreads in our bodies through lymph nodes or blood. The best way to detect cancer early is through regular screenings or mammograms.

Type

The different types of breast cancer are ductal carcinoma in situ, invasive, angiosarcoma of the breast, inflammatory and Paget's disease. After a breast cancer is diagnosed, the next steps are to determine the grade, stage and receptor status to come up with a patient’s prognosis and treatment.

Grade

Grade 1 (well-differentiated) cancers are made up of slow-growing cells. Grade 3 (poorly differentiated) cancers grow and spread faster. Grade 2 (moderately differentiated) cancer is between a grade 1 and 3 in terms of the speed and spread of the cells.

Stage

Breast cancer is staged by determining the TNM categories of the tumor: T is the size of the tumor; the N indicates the cancer’s spread to lymph nodes; and M denotes the spread to distant sites. Breast cancer stages range from 0 (ductal carcinoma in situ) to stage 4 (metastatic).

Hormone receptor status

The hormone receptor status of a tumor is used to help determine prognosis, as well as certain targeted treatments that can be used to treat breast cancer. Cancer cells are tested to see if they have proteins that are estrogen receptors (ERs) or progesterone receptors (PRs). Hormone-receptor-positive breast cancer has either ER or PR. Hormone-receptor-negative breast cancer has neither ER nor PR. Therefore, a targeted hormone therapy is not helpful in the treatment of those cancers. HER2/neu is a growth promoting protein on the outside of all breast cells. If a higher than normal level of HER2 is identified in the cells, then the cancer is HER2 positive. About 1 in 5 women with breast cancer has HER2 positive disease. Invasive breast cancers should be tested for HER2, because positive HER2 cancers can benefit from certain drugs.

Treatment

Breast cancer treatment can include surgery, chemotherapy, radiation therapy, hormone therapy and targeted therapies. Targeted therapies are different than chemotherapy. Chemotherapy attacks all cells, including the cancer cells, while targeted therapies block cancer cells from growing and spreading.

Survival rates

The percent of breast cancer survivors who survive five years is 89.7%, according to the National Cancer Institute Cancer Stat Facts for Female Breast Cancer, based on data from 2008-2014. Relative survival compares patients diagnosed with cancer to the general population with the same age, race and gender. It is important to remember that survival is based on large groups of people and cannot predict the survival of every individual.
Novant Health cancer care in the greater Charlotte market: Cases and outcomes

The National Cancer Database (NCDB) provides benchmarks and comparison data for over 1,500 Commission on Cancer-accredited facilities. The most current available data are for cases diagnosed in 2015. Following are demographic comparisons for the greater Charlotte market and the NCDB for 2015 breast cancer cases.

Figure 1 breaks down the age differences at diagnosis.

Whites account for over 70% of breast cancer diagnoses in both the greater Charlotte market and the NCDB facilities. Figure 2 shows the greater Charlotte market has a higher incidence of breast cancer cases among blacks (23%) compared to 11% in the NCDB.

Note: Percentage may not total 100% due to rounding.
Commission on Cancer Standard 4.6 study results

As part of Novant Health’s commitment to providing the highest quality care, a physician member of the Novant Health greater Charlotte market cancer committee performed a study to assess that nationally recognized treatment guidelines are being used in the treatment of HER2 positive breast cancer.

Dipika Misra, MD, performed the guideline review and found that 93% of patients met guidelines, based on National Comprehensive Cancer Network Breast Cancer Guidelines version 2.2017.

The initial treatment of 58 patients diagnosed and treated for cancer care during 2017 was reviewed, 93% of the patients were treated according to NCCN guidelines. Forty-eight patients (83%) received Herceptin; 10% (n=6) did not receive Herceptin due to the size of the tumor (<5 mm). The four patients not following guidelines refused Herceptin treatment.

Figure 3 shows the stage of breast cancer patients is similar in greater Charlotte and the NCDB.

Figure 3: Cancer stage for greater Charlotte market vs. NCDB

Note: Percentage may not total 100% due to rounding.