Cape Fear Valley Health System

2013 Cancer Committee Study of Patient Outcome Analysis of Breast Cancer Patients Diagnosed in 2007

Breast cancer is the most commonly diagnosed cancer worldwide with over 1.3 million cases detected in 2008. The incidence rates are highest in North America, New Zealand, Australia and Europe. The rates are lowest in Asia and Sub-Saharan Africa. These differences are likely related to societal changes, e.g. high fat diet, age at menarche, reproductive patterns, such as fewer pregnancies and later age at first birth.

**National Statistics:**

In the United States, breast cancer accounts for over 230,000 cases each year and over 40,000 deaths. It is the main cause of death in women ages 20 to 59. The incidence rate has decreased from 1999 to 2007 by 1.8 percent each year. This is at least partially explained by recommendations to discontinue post-menopausal hormone replacement therapy as a widespread practice.

**North Carolina Statistics:**

It is anticipated that about 8,500 new cases of breast cancer are diagnosed each year in North Carolina. Nearly half of these cases are in women between the ages of 45 to 64. Nearly half of the new cases are diagnosed at localized stage. The age adjusted mortality rate from 2004 to 2008 was 24.3 per 100,000 persons per year. Although mortality rates have decreased for Caucasian and minority women, African-American women are still more likely to die from breast cancer than women of other races.

**Breast Cancer at Cape Fear Valley Health System for 2007:**

During the study period of 2007, a total of 227 new cases of breast cancer were diagnosed at Cape Fear Valley Health System. Only two cases were in males, while the remaining cases of 225 were in females. About five percent were 40 years and younger, 18 percent were between ages 40-49, 26 percent were between ages 50-59, 28 percent between ages 60-69, and about 22 percent between the ages 70-90.

Seventy percent of the above patients were residents of Cumberland County. Harnett County residents accounted for 11 percent while Robeson, Sampson and Lee County residents accounted for five percent, three percent and two percent, respectively.

Caucasian females and two Caucasian males accounted for 50 percent of cases, African-Americans 39 percent, American-Indians about two percent and seven and one-half percent were listed as other.

Patients diagnosed with pre-invasive (Stage 0) breast cancer accounted for 16 percent, 35 percent had Stage I, 32 percent had Stage II, 11 percent had Stage III, while six percent of patients had Stage IV breast cancer. This compares with national data reported by the National Cancer Institute (NCI), which reports 61 percent being localized (confined to primary site), 32 percent regional (spread to regional lymph nodes), and five percent being metastatic at the time of diagnosis.

**Treatment Trends by Stage at Cape Fear Valley Health System:**

Of the 36 patients with pre-invasive (Stage 0) breast cancer, four were treated with hormone therapy following surgery, five had surgery alone, 12 received adjuvant radiation and hormonal therapy following surgical resection, and 13 were offered radiation alone after surgery.

Among the 79 patients diagnosed with Stage I breast cancer, two had chemotherapy following surgery, three had chemotherapy and hormone therapy following surgery, four received hormone therapy alone following surgery, eight were offered a combination of chemotherapy, hormone and radiation therapy following surgery, ten received chemotherapy and radiation following surgery, ten received surgery alone, 12 received radiation alone following surgery, and 30 patients were offered radiation and hormonal therapy following surgical resection.

For the 73 patients with Stage II breast cancer, four patients were offered surgery alone, five patients were treated with hormonal therapy following surgery, six patients had chemotherapy and hormone therapy following surgery, ten patients were offered chemotherapy and radiation following surgery, 11 patients had radiation and hormone therapy following surgery, 12 patients were treated with chemotherapy following surgery, and 25 patients had combination of chemotherapy, radiation and hormonal therapy after surgery.

Among the 25 patients with Stage III breast cancer, two patients had hormone therapy following surgery, two patients had adjuvant chemotherapy after surgery, five patients were treated with radiation and hormonal therapy following surgery, seven had multimodality chemotherapy, radiation and hormonal treatment following surgery, and nine patients received chemotherapy and radiation following surgery.

For the 14 patients with metastatic Stage IV breast cancer, two patients went on to receive supportive/ hospice care following their diagnoses, two patients were treated with palliative hormonal therapy, two patients had chemotherapy, radiation and hormonal therapy, four patients were treated with chemotherapy and hormonal therapy, and four patients received palliative chemotherapy.

**Overall Survival:**

The overall survival for patients with Stage 0 was 94 percent, for Stage I it was 95 percent, for Stage II it was 80 percent, for Stage III it was 58 percent, and for Stage IV it was 30 percent.

This compares favorably with national statistics, reported by the American College of Surgeons National Cancer Database, which reports 95.6 percent overall survival for Stage 0, 92.2 percent survival for Stage I, 85.4 percent survival for Stage II, 66.7 percent for Stage III and 21 percent overall survival for Stage IV.

Respectfully Submitted by,

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