



Non-Small Cell Lung Cancer at Cape Fear Valley Health

PATIENT OUTCOME ANALYSIS

NATIONAL STATISTICS

In the United States, non-small cell lung cancer (NSCLC) accounts for more than 221,000 cases each year, making it the second most commonly diagnosed cancer after breast cancer. However, it is by far the most common cause of death from cancer in both men and women, resulting in 151,000 deaths, more than prostate, breast and colorectal cancer combined. Lung cancer accounts for about 27 percent of all cancer deaths. Rates for new lung and bronchus cancer cases have been falling on average 1.7 percent each year over the past 10 years. Death rates have not changed significantly over 2002-2012. Lung cancer mainly occurs in older people. About 2 out of 3 people diagnosed with lung cancer are 65 or older; fewer than 2 percent of all cases are found in people younger than 45. The average age at the time of

diagnosis is about 70.

NORTH CAROLINA STATISTICS

About 6,800 new cases of non-small cell lung cancer are diagnosed each year in North Carolina. About 3,900 of these are in males; the remaining 2,900 cases are in women. The age-adjusted mortality rate in North Carolina in 2006 was 59.6 percent, which is higher than the national average of 51.5 percent.

NON-SMALL CELL LUNG CANCER AT CAPE FEAR VALLEY HEALTH SYSTEM FOR 2007

During the study period of 2007, a total of 165 new cases of non-small cell lung cancer were diagnosed at Cape Fear Valley Health System. The cases were split evenly between males and females, with 83 and 82 patients, respectively. Only 1 percent of patients were younger than 40. Seven percent were between 40 and 49, 17 percent were between the ages of 50 and 59. The largest single age group was those between 60 and 69, comprising 35 percent of patients. Those between 70 and 80 made up 30 percent of the patient population, while those over 80 represented 8 percent of the group.

Eighty-one percent of the above patients were residents of Cumberland County. Robeson County residents accounted for 6 percent while Sampson, Harnett and Lee County residents accounted for four percent, three percent and three percent, respectively.

Caucasians accounted for 71 percent of cases, African-Americans made up 25 percent, and American-Indians about one percent. Two percent of patients were listed as unknown ethnicity.

Patients diagnosed with Stage I disease accounted for 18 percent of the patient population, eight percent had Stage II, 31 percent had Stage III, while 39 percent of patients had Stage IV NSCLC. In two percent of patients the stage was unknown. This compares with national data reported by the National Cancer Institute (NCI), which reports 16 percent being localized (confined to primary site, which would include stage I and II), 22 percent regional (spread to regional lymph nodes), and 57 percent being metastatic at the time of diagnosis, and five percent with unknown stage.

The two most common histologic subtypes found in this patient population were adenocarcinoma which comprised 36 percent of the group, and non-specified non-small cell histology with also 36 percent. Squamous cell carcinomas were 18 percent, and large cell carcinomas were 2 percent.

TREATMENT TRENDS BY STAGE AT CAPE FEAR VALLEY HEALTH SYSTEM

All stage I patients received definitive (as opposed to palliative) treatment. Surgery was the most common single modality used, with 15 patients in this group. Chemo-radiation was the second most common with 6 patients out of a total of 30 stage I patients. For stage II, surgery and chemotherapy (with or without radiation) was used in 7 of the 14 patients. In the 52 patients diagnosed with stage III NSCLC, chemo-radiation was used in 25 patients, with an additional 8 receiving radiation alone. Thirty of the 64 stage IV patients received chemotherapy as part of their treatment regimen.

OVERALL SURVIVAL

The overall survival for patients with Stage I disease was 48 percent, for Stage II it was 29 percent, for Stage III it was 12 percent, and for Stage IV it was three percent.

This compares favorably with national statistics, reported by the American College of Surgeons National Cancer Database, which reports a range of 47 to 48 percent overall survival for Stage I, 28 to 29 percent survival for Stage II, 12 percent for Stage III and 2.6 percent overall survival for Stage IV.