Lung Cancer Diagnosis, Treatment, and 5-Year Observed Survival
Mercy and Unity Hospitals
By
Stephen Mann, MD
Presented at the May 23, 2006, Cancer Committee meeting

Incidence:

Figure 1 shows the trend over the last 10 years in lung cancer diagnoses for the Mercy and Unity cancer program. Over this time, there has been a 25 % increase in total lung cancer cases. The rate of increase exceeds the national growth in diagnoses, which has been flat (approximately 174,000) over the last 3 years. At Mercy and Unity Hospitals currently there are more cases in women than men. This result, again, contrasts with national figures where lung cancer diagnoses are more common in men. The most important measure which would decrease the lung cancer incidence both locally and nationally is smoking cessation and prevention.

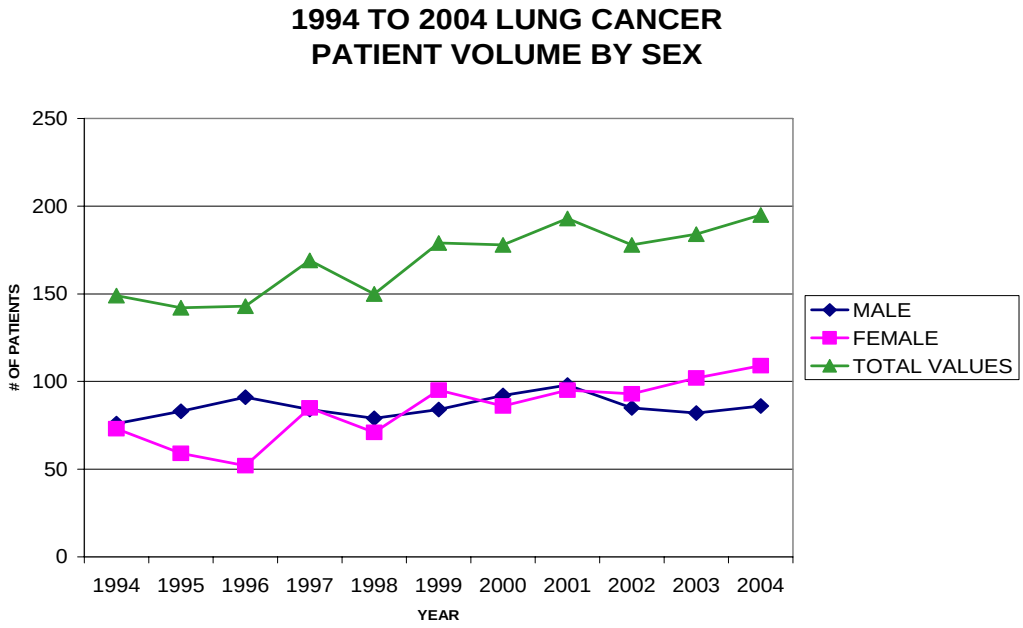

Figure 1

Staging:

The stage of lung cancer at diagnosis for Mercy and Unity Hospitals is compared with national data in Figure 2A and 2B. The time range is 1998-2002. The diagnoses are separated into non-small cell lung cancer (NSCLC) and small cell lung cancer (SCLC) types. The results indicate an increased proportion of stage I NSCLC cases nationally. Otherwise, there are no significant differences in stage at diagnosis between Mercy and Unity cases and the national data. In response to this relative paucity of Stage I NSCLC at Mercy and Unity Hospitals, we will review our practices regarding close follow-up of suspicious lesions such as pulmonary nodules and persistent pneumonias in high risk patients (e.g. smokers).

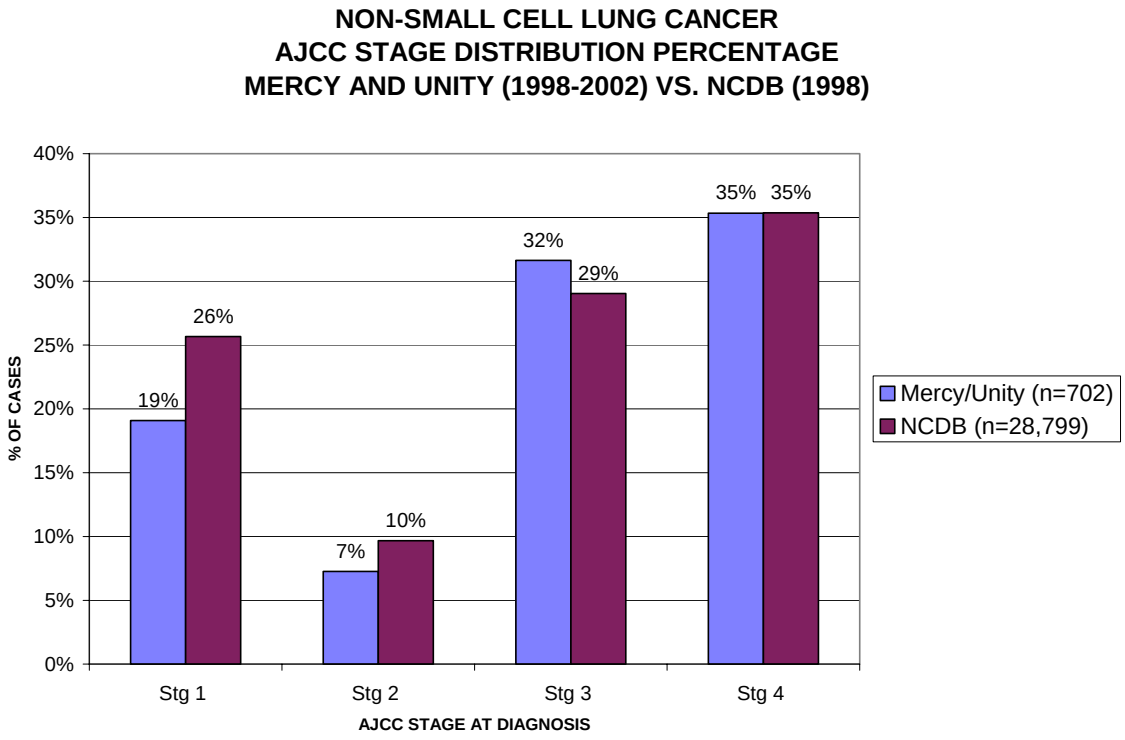

FIGURE 2A

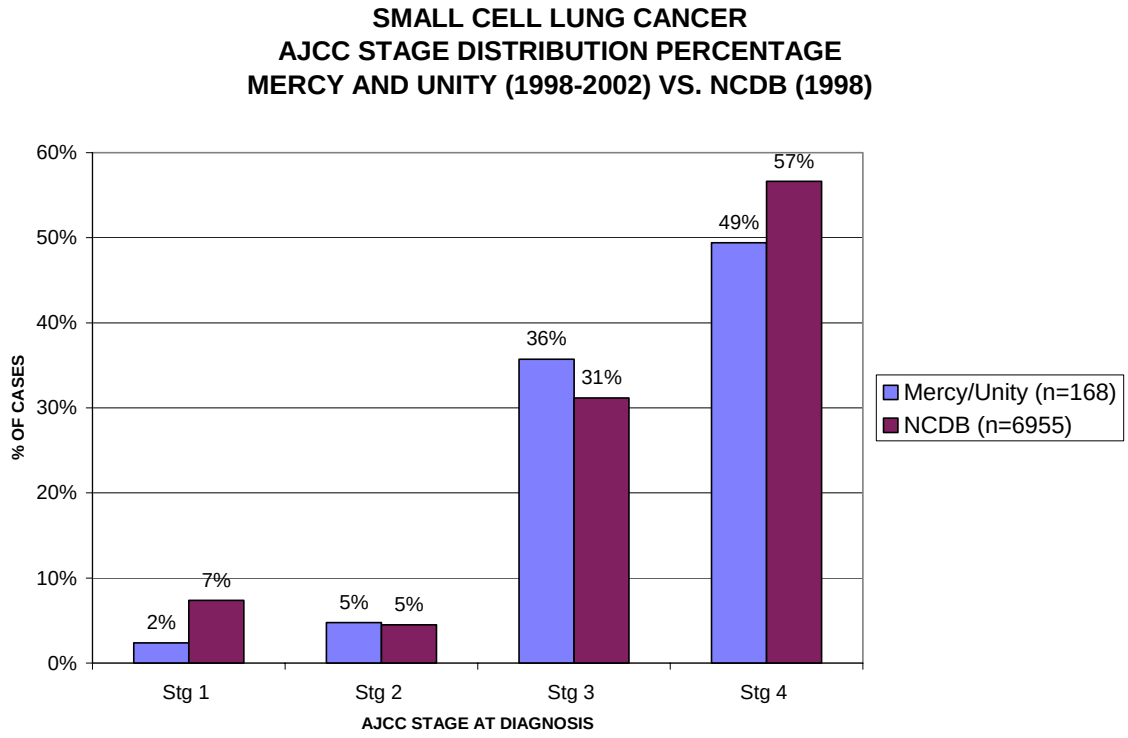

FIGURE 2B

Unfortunately, a reliable screening test for lung cancer has not been developed. For this reason, early detection of lung cancer (Stage 1 or 2) occurs incidentally and in only a minority of cases (31% of NSCLC and <10% of SCLC) resulting in a significant negative impact on survival.

Survival:

Figures 3A and 3B show 5-year survival data by stage for NSCLC and SCLC. The data again cover the 1998-2002 period. For NSCLC, the overall 5-year survivals are very similar between Mercy/Unity and national results. The slightly better national figure is unlikely to be statistically significant and is primarily due to the higher proportion of Stage I cases nationally, as mentioned above. Preliminary Mercy/Unity data show that overall 5-year survival for NSCLC diagnosed from 2000 to 2004 is 17%.

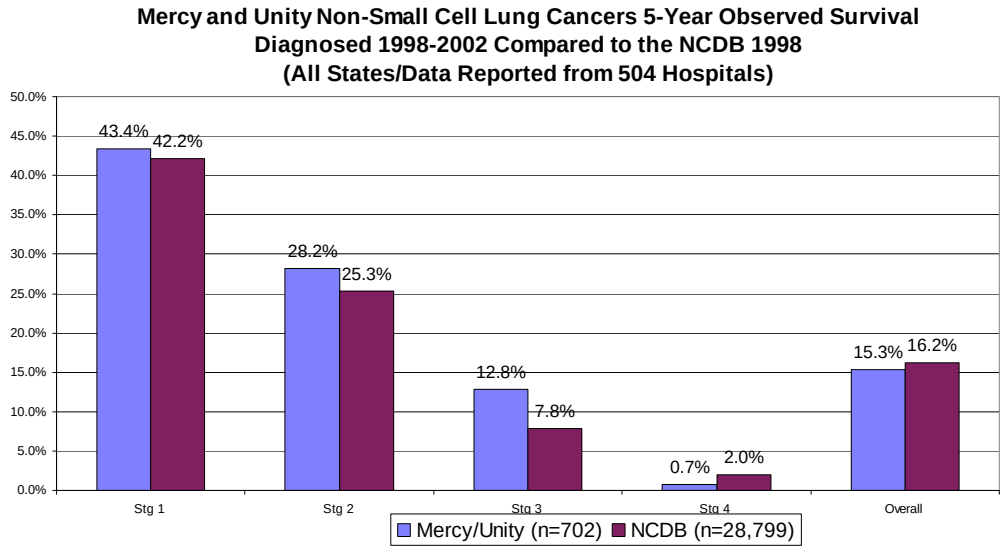

Figure 3A

Five-year survivals for SCLC are consistently better for Mercy and Unity cases compared with the national data, with an absolute 3.4% greater 5-year overall survival at our center. Fifteen or more percent of patients diagnosed with limited stage SCLC can be long-term survivors after treatment with concurrent chemotherapy and radiation therapy.

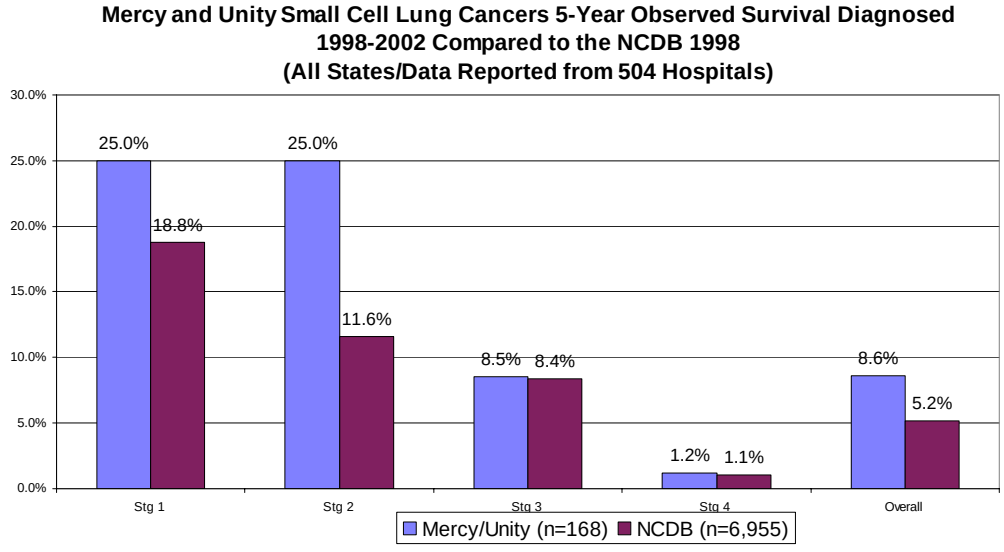

Figure 3B

Discussion:

A planned initiative for the Mercy and Unity Cancer Program over the next year is to improve coordination among the sub-specialists who provide lung cancer care. We have found that from 1998 to 2002, an average of 34 days passed between diagnosis and resection of early stage NSCLC. We would like to decrease this time to 21 days or less, thereby improving the number of patients who become long-term survivors after surgery. The focus of this initiative will be to facilitate surgical consultation and pre-operative workup of potentially resectable cases. This will require a system of improved communication between primary care physicians, medical oncologists, pulmonologists, and thoracic surgeons.