## Mon General 2013 Study of Lung Cancer Outcomes

Lung cancer is the leading cancer killer in both men and women in the United States. It surpassed breast cancer as the leading cause of death in women in 1987. In 2013, an estimated 226,000 new cases of lung cancer will be diagnosed. This represents 14 percent of all cancers. This is a disease of the elderly with 80 percent greater than 60 years of age. It is also the most common cancer worldwide.

Unfortunately, the 5 year survival rate for lung cancer is 16 percent. For patients who were diagnosed with localized lung cancer, the 5 year survival rate is 52 percent. Only 15 percent are diagnosed at an early stage. For those with metastatic disease, the 5 year survival rate is 5 percent. Over half of the patients diagnosed with lung cancer die within the first year of diagnosis.

The rate of new lung cancer cases for women has increased versus a decrease for men over the past 30 years, though men still develop lung cancer more frequently.

The absolute primary risk factor for lung cancer is smoking, both active and secondhand smoking. Smoking accounts for at least 85 to 90 percent of all lung cancer, radon 10 percent, and other environmental exposures contribute to lung cancer development. Non-smokers have a 20 to 30 percent increase in lung cancer risk if exposed to smoke in the home or other environment.

Lung cancer may present with no symptoms, but symptoms may include shortness of breath, weight loss, cough, coughing up blood and chest pain.

Lung cancer is divided into two major classes, non-small cell lung cancer and small cell lung cancer. The non-small cell lung cancers account for 85 percent of all lung cancer cases. This includes 2 major types, nonsquamous cancer including adenocarcinoma, large cell cancer and squamous cell cancer. Adenocarcinoma is now the most common type of lung cancer. It is also the most common type in nonsmokers.

From 2007 until 2012, there were 300 analytical cases of non-small cell carcinoma diagnosed at Mon General Hospital. Of these cases 54.8 percent were men and 45.2 percent were women. The peak age range was 60 to 80 years, with 64 percent of the patients being diagnosed in this age range. This is consistent with in the National Cancer Database, which shows 60 percent of patients being diagnosed in this age range as well.

By stage, 24 percent of the patients were stage I, 8 percent were stage II, 22 percent were stage III, 43 percent stage IV, and 5 percent uncertain. This also correlates to the National Cancer Database as well. There were 167 patients from Monongalia County and 63 patients from Preston County and other surrounding counties. In addition, there were 45 patients diagnosed with small lung cancer in this timeframe.

As noted, only 15 percent of lung cancer is detected at an early stage. Though our detection here was slightly higher than the national average, in an effort to improve earlier diagnosis of lung cancer, which hopefully will improve survival and detect patients at an earlier stage, Mon General Hospital now offers low dose CT scanning in high-risk patients as defined by the NCCN Guidelines. The NCCN Guidelines recommend low-dose helical CT scanning for select high-risk patients. These include current and former smokers between the ages of 50 to 74, with a greater than 30 pack-year history of smoking. Recent data from previous trials has shown a 20 percent decrease in lung cancer mortality with the use of low dose CT scanning compared to conventional chest x-ray. For those stage I patients found through this screening who underwent surgery, their survival rate was approximately 92 percent for stage I patients.

This screening cancer program is now available through Mon General Hospital. Also, the Zelda-Stein Weiss Cancer Prevention Program offers education and community service through workshops, lectures, advertising as well for this screening program, and also complications related to smoking and smoking cessation programs. The health fair further helps to educate the community regarding the complications of smoking and the benefit of low dose CT scan in high-risk patients.

It is hoped that all of these efforts will help to improve the overall prognosis of lung cancer, which still remains very dismal. First and foremost, smoking must be decreased. This will require much patient, physician and community education to achieve our goal.

Sincerely,

Darrell Saunders, M.D.

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Resources: American Lung Association, NCCN Guidelines, NCDB Benchmark Reports