Detecting lung cancer early with chest CT scans  
By Jared T. Hagaman, MD, FCCP

Lung cancer is the leading cause of cancer-related death in the United States, killing more people each year than colon, breast, and prostate cancers combined. The rates of lung cancer are particularly high in Kentucky. This is likely due to the historically high rates of cigarette smoking – the leading cause of lung cancer. Although not always the case, lung cancers generally do not cause symptoms until they have progressed to an advanced stage. Due to this lack of symptoms, most lung cancers are not detected until far along in the disease course when treatment options are limited. Until recently, lung cancers were only found in early stage by coincidence when a chest x-ray or CT scan (commonly referred to as a “cat scan”) was performed for some other reason. In fact, only 15% of lung cancers are diagnosed at stage 1 – the earliest and most treatable stage. Conversely, 57% of lung cancers were diagnosed at stage 4, the most advanced stage of lung cancer, when the cancer has spread to other organs.

Because of this, for years a method to effectively screen at-risk patients has been sought. Many trials were conducted, but none were found to be effective in finding lung cancers earlier and improving outcomes until the National Lung Cancer Screening Trial (NLST) in 2012. The NLST was a nationwide trial that was conducted at 33 health centers across the country. The study investigators looked at the group most at-risk for lung cancer – smokers or former smokers, age 55-74 – and looked to see if screening annually for lung cancer with a chest CT would improve outcomes. The study included more than 55,000 patients and took several years to complete. At the conclusion of the study, the group that was screened annually with a chest CT had a 20% reduction in cancer-related deaths when compared to the group that was not screened.

No study had ever shown such promise to reduce the risk of dying from lung cancer. The NSLT proved that by screening patients at high risk of developing lung cancer, more cancers are detected at an early stage when they can be cured and ultimately save lives.

Based on these powerful results, the United States Preventive Task Force recommended annual chest CT screening for patients in the at-risk group. Other organizations such as the American Cancer Society and the American College of Chest Physicians have adopted similar recommendations.

Unfortunately, chest CTs for lung cancer screening are very costly. Medicare, one of the largest insurers of at-risk patients, decided to pay for screening chest CTs for patients meeting the at-risk criteria. Other insurers have been slower to pay for the studies, and patients wanting to be screened had to pay for the exam themselves. To increase the access to this potentially lifesaving test to more people, many organizations have begun to offer lung cancer screening chest CTs at rates far below the actual cost of performing the exam. At Ephraim McDowell, we are offering lung cancer screening CTs to patients that fit the at-risk criteria for a nominal fee.

The criteria for lung cancer screening are:

- Age 55-74
• Greater than 30 pack years of smoking (pack years equal number of years smoking x average packs of cigarettes per day)
• Quit smoking within the last 15 years
• Must be able to lie flat

If you feel you meet the criteria to be screened for lung cancer, please contact your primary care physician or Ephraim McDowell Pulmonology at (859) 239-5860.

Dr. Jared T. Hagaman is a board-certified pulmonologist who is on the medical staff at Ephraim McDowell Regional Medical Center.