The American Cancer Society (ACS) recently published its new initial Lung Cancer Screening Guidelines using low-dose computed tomography (LDCT) based on findings of the National Cancer Institute's National Lung Screening Trial. The majority of non-small cell lung cancers are diagnosed in a locally advanced stage (Stage IIIb) or advanced stage with metastatic disease (Stage IV) with 5 year survival rates of only 7% and 2%, respectively. Therefore, there has been interest for decades in the detection of lung cancer at an earlier stage through screening when treatment might be more efficacious.

In a setting in which a patient's clinician has access to a "high-volume, high-quality" lung cancer screening and treatment center, the ACS recommends LDCT screening for patients between the ages of 55 to 74 years old who are in relatively good health and who are current smokers or who quit smoking within the past 15 years. Of course, this is a time period in which cost containment in medicine and concerns about excessive or unnecessary testing are at the forefront. As noted by the ACS guidelines, the benefits of screening may not be sufficient compared to the risks for some patients because of their age, other conditions, or relatively low probability of developing lung cancer, but screening is still a decision to be made by individual patients and their medical care providers. False-positive results and overdiagnosis with overtreatment may add costs and possible risks, without benefits in some cases, but the overall benefits and decreased medical and productivity costs from detecting and treating lung cancer in an early stage are worthwhile goals in the appropriate patient groups.

Pathologists will diagnose the increased number of aspirates, biopsies, and other procedures that will follow from LDCT screening. As pathologists are already aware, these tissues may need to be triaged for predictive biomarker testing or other studies, requiring conservation of tissue samples in many cases. This potential increase in testing takes place within the new context of cost containment and laboratory efficiency.

Screening for lung cancer is not the only area of laboratory screening that is under debate among pathologists. The Archives of Pathology & Laboratory Medicine welcomes input on this topic, including, especially, evidence-based studies on the benefits, risks, and costs of screening for cancer and other diseases.

References