Harmonizing Lung Cancer Screening Guidelines

By Joanne Nicholas

New guidelines on lung cancer screening narrow the scope of who should be screened for the disease, as well as define where and how people should be screened.

The guidelines were a combined effort of the American College of Chest Physicians, the American Society of Clinical Oncology, the American Cancer Society, and the National Comprehensive Cancer Network (NCCN). A special edition of the Journal of the American Medical Association published the guidelines on May 20, 2012, which were presented the same day at the annual meeting of the American Thoracic Society by Peter B. Bach, M.D., M.A.P.P., a pulmonologist and director of the Center for Health Policy and Outcomes at Memorial Sloan-Kettering Cancer Center in New York, who chaired the panel.

“Many organizations have established separate guidelines for lung cancer screening. We felt it was important to follow the Institute of Medicine’s recommendations for best practices and bring together these four organizations to review the data from 21 studies, including the National Lung Cancer Screening Trial (NLST), and harmonize our recommendations. This effort is unparalleled,” said Bach. “We hope our review will be an enduring resource.”

Bach said the panel reviewed the risk and benefits of screening before arriving at their recommendation to screen only in a “highly controlled environment with very experienced doctors. We concluded that screening should only be offered to those at high risk. If the guidelines are followed, 8 million Americans would be eligible for screening, and as many as 4,000 lung cancer deaths per year could be prevented,” he said. “It is a mistake to think everyone can benefit from screening or that the harms (radiation exposure, lung biopsy, anxiety) are so small.”

Specifically, people should be screened only in settings that can deliver the comprehensive care provided to NLST participants and using only low-dose computed tomography.

Annual screenings are limited to current or former smokers aged 55–74 years who smoked for 30 pack-years (number of packs of cigarettes smoked per day by the number of years the person has smoked) or more who continue to smoke or have quit within the past 15 years. Screening is not recommended for people younger than 55 or older than 74 years, regardless of their smoking history.

“I am very excited about screening,” said Frank C. Detterbeck, M.D., F.A.C.S., F.C.C.P., chief of thoracic surgery at Yale Cancer Center in New Haven, Conn., who is the senior author of the study and represented the American College of Chest Physicians on the panel. “Screening may bring about a paradigm shift for lung cancer in a lot of ways. Our review and guidelines should help with implementation of this because they are evidence based.”

But he cautioned: “We have to be careful so we do this in a way that maximizes the benefits and minimize the harms.”

Detterbeck hopes to see an effect of the NLST in his practice. “A big part of what I do is evaluate people at all ends of the spectrum from early-stage to late-stage lung cancer, which cannot be treated surgically. Screening will shift this to more patients with early- and less with advanced-stage cancer.” He believes the guidelines will serve as a solid foundation on which to build the system to implement their recommendations.

Creating a System

In addition to the screening criteria, the report presented language and statistics to assist physicians evaluating patients for screening and explaining their individual risks and benefits.

“I am worried that primary-care physicians are not well equipped to have this discussion,” said Detterbeck. “Who you screen is a complex thing. I think this will be a learning process. We are just starting to develop the systems and processes to screen effectively.” He said many people confront screening “worried and wanting a lot of reassurance. That has to be part of what we provide. You need to be able to communicate their risk. If it is low, you have to be able to show them their risk is really not that high so it is probably not in their best interest to be screened, not simply say, ‘You don’t meet the criteria.’”

Detterbeck fears people may then self-refer for screening without following a careful process. “It is America. You have everything from entrepreneurs preying on people’s fears to thoughtful people completely invested in doing the right thing.”

Bach is also concerned that despite “superclear” guidelines, danger exists that physicians less experienced in interpreting the scans may overdiagnose and overtreat patients. “The efficacy of screening is

Frank C. Detterbeck, M.D.
seen only at top centers like those used in the NLST. It takes experience evaluating scans for physicians to be cautious.” Bach suggests possible financial incentives for physicians to aggressively follow up minor findings. “Although many people pay out of pocket for the initial scan, if an abnormality is found, everything will be paid for by insurance.”

Yet to be created is a way to share patients’ results. “A real important aspect will be whether we can pool the data to keep learning and keep refining the process,” said Detterbeck.

**Advocates Encourage Screening**

Several lung cancer advocacy groups recommend screening by using the NCCN guidelines issued October 2011. These include a category 2a recommendation for younger and former smokers who smoked for 20 years and have one additional risk factor. However, some seek to further expand the definition of a high-risk population.

Laurie Fenton Ambrose, president and CEO of the Lung Cancer Alliance, endorses the NCCN guidelines but suggests “there are risks not associated with smoking which could be another category benefiting from screening after talking with doctors.”

She asserts that “over 160,000 people a year will die from lung cancer. Half could be saved if they were properly screened. The early termination of the NLST scientifically proved low-dose computed tomography to be effective in dramatically reducing deaths. How we transition the science into a public-health benefit responsibly, safely, and effectively is our primary challenge now.”

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