Well, as I suspected, the topic of lung cancer cancer screening has been a bit of a minefield, but I’m going to end now by trying to pull together where we are here and now, at least in the US. The article about the very impressive results of the I-ELCAP trial that was published in the New England Journal of Medicine (NEJM) (abstract here) concludes that 80% of deaths from lung cancer could be prevented by CT screening and that such a screening program has a cost-effectiveness comparable to that of mammography for breast cancer. This conclusion has met with a range of views. The Lung Cancer Alliance, a national non-profit organization dedicated to patient support and advocacy for lung cancer, now recommends that higher-risk patients “should have a detailed discussion with a doctor knowledgeable about lung cancer screening on the potential risk and benefits of undergoing a baseline CT scan”. Those higher risk patients are defined as any smoker or former smoker over age 50 with a greater than 10 pack year history of smoking, or any adult with a significant exposure to cigarettes and a first-degree relative diagnosed with lung cancer before age 50, and there are some other groups, noted here, who they recommend should consider a screening discussion.

The fact that the I-ELCAP manuscript was published in NEJM certainly suggests that it is an important result that might potentially alter general practice. NEJM is arguably the most visible and influential medical journal in the world, and papers published there often change medical practice overnight. The editorial that accompanied the I-ELCAP paper noted that the survival in the large I-ELCAP trial of 88% was certainly superior to the general survival rate of 70% for stage I NSCLC at 5 years but also noted that this was an observational rather than a randomized trial, and that lead time and overdiagnosis bias could have been introduced in the survival analysis. Rather than saying that the study makes CT screening for high risk patients an appropriate new standard, or saying that these results are not adequate to change screening recommendations (which have been that there is not evidence sufficient to recommend screening), author Michael Unger called the I-ELCAP results “provocative” and left the rest of the world to fight about what this all means. No real help there.

The current recommendations from the American Cancer Society, National Cancer Institute, American College of Radiology, US Preventive Services Task Force, and International Association for the Study of Lung Cancer do not go so far as to recommend screening for lung cancer at this time, but that isn’t to say that people at significant risk for lung cancer shouldn’t have a discussion about screening with their doctors. Although many critics of the I-ELCAP trial consider the statement that screening could decrease lung cancer-related deaths by 80%, plenty agree that there are arguable benefits to screening. Many of those who are hesitant about recommending CT screening await the results of the National Lung Screening Trial, or NLST, which is a trial that enrolled over 50,000 current or former smokers before closing to enrollment, than randomized them to receive either chest x-rays or CT scans. It’s very large, it’s randomized, and if it demonstrates a survival benefit would probably get everyone to agree that CT screening for lung cancer should be a standard of care for people at significant risk. But it will also take another several years or so before results are available, and that leaves us in a quandary for now.
Despite the sometimes contentious debate, there is a good bit both sides can agree on. Even if not definitive, the I-ELCAP results are very encouraging. Even though official guidelines from government and medical associations are not recommending routine screening yet, people anywhere on the spectrum generally support a good discussion of the pros and cons of screening between higher-risk people and their doctors. And the I-ELCAP protocol has provided a careful, deliberate, and very evidence-based approach to lung nodules seen on CT, which includes close follow-ups for a significant minority of people who undergo screening. Many nodules will be detected. The vast majority will not be cancer, but a few will. Not every person who finds out they have a small nodule can tolerate waiting three months for another CT scan, and others may not accept a lack of change on CT as comforting enough to prevent them from wanting a needle biopsy or a wedge resection to prove a benign diagnosis. But the people running the trials and advocating lung cancer screening are highlighting that screening is a process and not just a test, which involves follow-up scans and a restraint from chasing down nodules that are designated as likely benign by the screening criteria. And pretty much everyone agrees that if a person pursues screening, it is best pursued at a center that has strong experience with CT screening for lung cancer.

In that respect, I have it easy, since my hospital is one of the 38 institutions that has participated in I-ELCAP and continues to do so. For people who are interested, the website for the study/project is here, and the list of current participating centers and contact people around the world is on this page. The study is still collecting patients and data, which we can all hope will help everyone to reach a consensus in this field.

So no broad national changes yet, but I'll agree that the I-ELCAP trial is large and very provocative, and I'll continue to stand on the fence here. I'll update as new information comes in.