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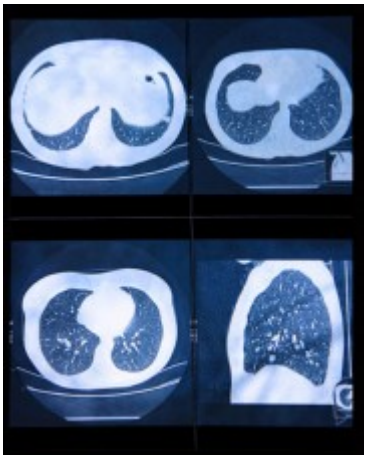
To CT scan, or not to: that is the question. Smokers need to know

By ACSH Staff — May 13, 2015



Let s get to the end of this story first, as the rest of it is subject to debate and discussion among patients, doctors and family members. This however is not: no screening will prevent or protect against lung cancer. The best and only protection is this: *Don t smoke. If you do, quit.*

That s easy to say, so hard to do. That's why it's far better to ***never start smoking!*** But the remaining discussion here is for smokers and ex-smokers considering if they should get the screening CT scan for lung cancer.

Not long ago, the official advisory to smokers and their doctors seemed fairly clear [1]: for current smokers over age 50 or so and under 75, or ex-smokers who quit less than a decade ago, periodic screening for lung cancer with low-dose spiral CT scanning would reduce the risk of lung cancer death by a significant amount, around 20 percent [2]. These studies were done by the National Lung Screening Trial group and published in 2011. Two years later, the voluntary expert federal panel, United States Preventive Services Task Force (USPSTF), confirmed their official recommendation [3], changing the advised parameters a bit:

The USPSTF recommends annual screening for lung cancer with low-dose computed tomography (LDCT) in adults aged 55 to 80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years.

(A pack-year of smoking is calculated based upon how many cigarettes are smoked daily multiplied by the duration in years of smoking).

Medicare s coverage would be crucial, as most of those recommended to get the scan would be covered by that entity. While its advisory committee recommended ***not*** to cover CT screening, citing inadequate evidence that its benefits outweighed potential harms, Chief Medical Officer Dr. Patrick Conway, officially disagreed with his own committee and approved coverage [4] with some

caveats. Uniquely for Medicare coverage, patients wishing to undergo the test need to first discuss the subject in a counseling and shared decision-making visit with a physician (not the patient s own MD). The rationale for this: the benefits, that 20 percent reduction in lung cancer deaths, is not so simple, as discussed in a recent New York Times article on this subject [5]:

The problem is, testing can cause harm, too. First, a high proportion of those tests will trigger a false alarm. CT scans can t distinguish well between small nodules that aren t dangerous and those that become lethal.

In the national trial, close to 40 percent of participants got positive results from at least one of their three CT scans, but more than 96 percent of these nodules weren t cancerous.

False positives usually require additional scans, over several years, to determine whether nodules are malignant. Meanwhile, you have to be willing to live with that uncertainty, Dr. Gould said.

Worse, some positive results require more invasive follow-up, particularly biopsies, which also have risks, though low ones. Twenty to 25 percent of the time, a biopsy causes a pneumothorax, or collapsed lung, which usually heals on its own but occasionally requires hospitalization. Biopsies can also produce false negatives or dangerous bleeding.

For older people, the odds shift somewhat. Their cancer risk rises with age, so the scan will detect more lung cancer, according to an analysis of the national trial participants over age 65. But their rate of false positives rose, too, making invasive diagnostic procedures more likely. At older ages, these procedures may not be trivial.

ACSH s Dr. Gil Ross had this comment: Years ago, when I was in practice, it seemed that the more screening, early detection, etc., the better. Now the pendulum has swung clearly: You may think we should try to detect lung cancer as early as possible, after all it s the nation s leading cancer killer, with about 160,000 victims annually. Twenty percent of that is over 30,000 lives potentially saved. But the facts are not so clear. Still, what I said in 2013 [2] remains my belief today: smokers who qualify through the parameters given should get that test.
But coming round to the beginning again: Don t smoke!

Links

[1] http://www.nejm.org/doi/full/10.1056/NEJMoa1102873
[2] http://acsh.org/2013/05/spiral-ct-screening-a-good-idea-for-smokers-and-many-ex-smokers/
[3] http://www.uspreventiveservicestaskforce.org/Page/Topic/recommendation-summary/lung-cancer-screening
[4] http://www.cms.gov/medicare-coverage-database/details/nca-decision-memo.aspx?NCAId=274
[5] http://www.nytimes.com/2015/05/12/health/on-medicare-and-assessing-the-value-of-lung-cancer-screening.html