Lung cancer screening guidelines inadequate for high-risk minorities

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Lung CA seen on CXR. Credit: CC BY-SA 4.0 James Heilman, MD/Wikipedia
Data from a lung cancer screening program at the University of Illinois at Chicago provides evidence that national lung cancer screening guidelines, which were developed based on the National Lung Screening Trial, or NLST, in 2011 and recommend screening based on age and smoking history, may be insufficient for individuals in underrepresented communities.

The UIC researchers, who are members of the University of Illinois Cancer Center, found that when compared with patients in the NLST, the cohort of patients engaged in a Chicago-based lung cancer screening program had a higher percentage of black (69.6 percent vs. 4.5 percent) and Latino (10.6 percent vs. 1.8 percent) individuals, double the number of positive scans (24.6 percent vs. 13.7 percent) and a higher percentage of diagnosed lung cancer cases (2.6 percent vs. 1.1 percent).

Their findings are published in *JAMA Oncology*.

The researchers say the data illustrates how the national trial is not representative of all people living in the U.S., particularly of minorities.

Senior author Dr. Lawrence Feldman says that comparing the national screening data to baseline screening data from a diverse and urban population, including patients who receive care at federally qualified health centers, provides insights that can help reduce the racial disparities in lung cancer outcomes.

"Immunotherapies and other advances in medicine have come a long way in extending life and improving quality of life for many individuals diagnosed with lung cancer, but those advances mean much less for people living in underserved communities who can't access or are ineligible for screening programs," said Feldman, an oncologist at the University of Illinois Hospital and professor of clinical medicine in the UIC College of Medicine. "Screening that is offered based only on age
and smoking history may miss a large group of people who are at higher risk due to other factors."

According to the American Lung Association, African-Americans not only get lung cancer at a higher rate than other groups, but they are also more likely to die from the disease. The ALA reports that African-American men, for example, are 22 percent more likely to die from lung cancer than white men.

Lead author Mary Pasquinelli, a UIC nurse practitioner, says that the guidelines for lung cancer screening should be examined to see if additional risk factors, like a history of chronic obstructive pulmonary disease and having a close relative with lung cancer or a low education level, among other socioeconomic factors, should be considered alongside age and tobacco use when evaluating a person's eligibility for screening.

"We know screening is effective, but these data show us that we really need to start thinking about more expansive, risk-based screening guidelines, especially if we want to close the gap when it comes to racial disparities in lung cancer outcomes," Pasquinelli said. "Otherwise, continued use of screening guidelines that are skewed toward the white population could actually increase racial disparities in outcomes."

The UIC study group consisted of 500 men and women who received care at the University of Illinois Hospital and Clinics or UI Health Mile Square Health Center, its network of federally qualified health centers. The mean age of participants was 62 years.
