

Lung cancer screening model favored in Europe detects more cancers than one preferred in the US

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Researchers reported today that a prospective trial comparing two screening methods for at-risk lung cancer patients found that a model used by Canadian, Australian and European public health organizations detected more cancers than the screening model used by the United States Preventive Services Task Force (USPSTF). The results were shared today at the IASLC 2019 World Conference on Lung Cancer hosted by the International Association for the Study of Lung Cancer.

The National Lung Screening Trial (NLST) showed that [lung cancer screening](#) of high-risk individuals with low-dose computed tomography can reduce [lung](#) cancer mortality by 20 percent. Other findings such as the Dutch Belgian (NELSON) trial, first reported at WCLC2018 in Toronto, supported those results.

The International Lung Screening Trial (ILST) was established to follow at-risk lung cancer patients over a six-year period to determine if a popular screening selection model, PLCOm2012, and the model used by the USPSTF, were effective in detecting lung cancers in at-risk patients.

The PLCOm2012 is the most widely validated and applied lung cancer risk prediction model and has been shown to perform well multiple times in the United States, Canada, the United Kingdom, Germany and Australia. This model recommends CT screening for patients if they have a six-year risk of more than 1.5 percent. Most current guidelines,

including those of the USPSTF and Center for Medicare and Medicaid Services (CMS), recommend screening using variants of the NLST eligibility criteria: smoked 30 pack-years or more, smoking within 15 years, and age 55 to 77/80years.

Participants in the ILST trial received two annual screens and were followed for six years for lung cancer outcomes. Individuals not qualifying by either criteria were not offered screening, but some of them will be followed for lung cancer outcomes.

Of the 5,013 patients screened, 110 were found to have lung cancer. Ninety-nine percent of the cancers were found using PLCOm2012 compared to 77 percent using USPSTF criteria. 24/110 (21.8 percent) cancers were found by PLCOm2012 alone while only 1/110 (0.9 percent) was found by USPSTF criteria alone.

"Our analysis of ILST data indicates that classification accuracy of lung [cancer](#) screening outcomes supports the PLCOm2012 criteria over the USPSTF criteria," said lead researcher Stephen Lam, M.D., of the University of British Columbia in Vancouver.

Provided by International Association for the Study of Lung Cancer

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