

Cost-effective Lung Cancer Screening Programmes



For lung cancer screening programmes to be cost-effective, these should target high-risk people and identify non-cancer conditions such as chronic obstructive pulmonary disease (COPD), according to new research published in the *Journal of Thoracic Oncology*.

A multidisciplinary team from Canada conducted the study, which found that the overall cost-effectiveness of the programme could be substantially improved if the health of the people being screened were to improve. Combining CT screening for multiple conditions with efforts to stop smoking and manage the treatment of non-cancer heart and lung disease could make screening even more cost-effective, the authors say.

Lung cancer affects millions of families around the world, and treatment is becoming more and more expensive. By diagnosing smoking-related diseases early on, it could be possible to improve people's lives, both in length and in quality, more affordably. However, there are currently no national lung cancer screening programmes in place, because there was little evidence that the benefit in terms of life improvement would outweigh the financial cost.

The research team looked at patient-level data from two major screening trials: the National Lung Cancer Screening Trial (NLST) and the Pan-Canadian Early Detection of Lung Cancer Study (PanCan). They built an economic model to simulate the costs and benefits of introducing lung cancer screening programmes for high-risk people – those who had a two percent or higher chance of developing lung cancer within six years.

The team found that focusing on high-risk people could reduce the number of people who need to be screened by more than 80%. They calculated the cost of screening to be \$20,724 (in 2015 Canadian dollars) per year of life saved; this means the screening would be considered cost-effective compared to the benchmark of \$100,000 that is often paid for other cancer interventions in national healthcare.

"We need to think about how we manage lung cancer and focus on more economically viable strategies, including prevention and screening," said lead author Dr. Sonya Cressman, of The Canadian Centre for Applied Research in Cancer Control, and The British Columbia Cancer Agency in Canada. "Screening those at a high risk gives us the chance to prevent and treat a range of tobacco-related illnesses, and could also offer access to care for individuals who could be otherwise stigmatised or segregated from receiving treatment."

Source: [Elsevier](#)

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Published on : Tue, 4 Jul 2017