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## Low Dose CT Screening Needed to Reduce Mortality from Lung Cancer



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### ESR/ERS: White paper on lung cancer screening

A joint publication by two major medical societies - the European Society of Radiology (ESR) and the European Respiratory Society (ERS) - advocating the use of low-dose computed tomography to reduce mortality from lung cancer was published on April 30 in their scientific journals, *European Radiology* and *European Respiratory Journal*, simultaneously.

Lung cancer causes 1.37 million deaths per year, representing 18% of all cancer deaths worldwide, with a poor survival rate once the disease has reached an advanced stage. Since the disease can be treated most effectively in the early stages, and the risk factors (smoking, occupational exposure to substances like fine dust or asbestos, and age) are well known, early detection in high-risk individuals might help to reduce death from lung cancer.

"A major study from the US has revealed a significant decrease in lung cancer mortality as a result of a screening programme using computed tomography (CT) of the lung. It is our duty to provide recommendations for the implementation of standardised high-quality screening programmes to help reduce lung cancer deaths in Europe", said the first author of the paper, Hans-Ulrich Kauczor, from the University Heidelberg and the German Center for Lung Research.

The paper recommends structural and quality standards for future programmes, whether they are part of a clinical trial or routine clinical practice. A number of requirements for such programmes (which must be adjusted to the regional infrastructure and healthcare system) are listed in this article, including standardised operating procedures for low-dose image acquisition, inclusion and exclusion criteria, expectation management, and smoking cessation programmes. Furthermore, the paper recommends that risk models should be included and effective radiation dose reduced in order to increase the quality, outcome, and cost-effectiveness of lung cancer screening. Additionally, a central registry including a biobank and an image bank should be established and is highly recommended.

According to Kauczor, European networking already exists on an academic level, but it is now up to political leaders to provide the supranational framework to implement high-quality national and European programmes and prove the benefits for the general population and patients.

#### Contact:

European Society of Radiology (ESR), Neutorgasse 9/2, 1010 Vienna, Austria.  
e-Mail: [press@myESR.org](mailto:press@myESR.org)

European Respiratory Society (ERS), 4 Avenue Ste-Luce, 1003 Lausanne, Switzerland.  
e-Mail: [lauren.anderson@europeanlung.org](mailto:lauren.anderson@europeanlung.org)

#### Reference:

Kauczor HU, Bonomo L, Gaga M, Nackaerts K, Peled N, Prokop M, Remy-Jardin M, von Stackelberg O, Sculier JP, on behalf of the European Society of Radiology and the European Respiratory Society (2015) ESR/ERS white paper on lung cancer screening.  
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