



NATIONWIDE LUNG CANCER SCREENING PROGRAM - CROATIAN MODEL

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Objective:

Lung cancer is one of the leading causes of death from malignant diseases, both worldwide and in Croatia. With more than 3000 new diagnoses of lung cancer and more than 2900 lung cancer deaths each year, lung cancer is one of the main public health problems in Croatia. Despite recent advances in the treatment of lung cancer, five year survival rates for lung cancer patients is very poor. One of the main reasons is that approximately two-thirds of patients are being diagnosed at advanced stages when surgical treatment is not possible, leaving only systemic treatments available. Taking this into consideration along with a high smoking prevalence, we decided to implement the National Lung Cancer Screening Program.



The first national lung cancer-screening program in Europe to cover high-risk populations, completely integrated into an existing healthcare system and covered by the National Health Insurance Fund in full. The Croatian model places general practitioners (GPs) in the central role of the integrated approach checking for eligible candidates (based on inclusion and exclusion criteria) during dedicated or non-dedicated visits as well as searching their digital archive for stored data on smoking history.

Screening candidates are then enrolled in a smoking cessation program and referred to one of 16 low dose CT (LDCT) centers nationwide for baseline screening. Specially trained radiologists, along with the aid of Artificial Intelligence (AI) will then assess the baseline LDCTs to identify large or advanced cancers that require immediate diagnosis and treatment, with subsequent LDCTs to identify smaller non cancer nodules (NCNs) that require follow up. Lung nodules will be measured by using volumetric analysis and I-ELCAP guidelines.

The aim of the Croatian program is to establish pulmonology nodule clinics across the country to offer quick and comprehensive management of suspected lung cancers. The purpose of these clinics is to diagnose and treat patients with suspected lung cancer earlier to try to increase the cure rate in this group of patients.

The final goal of the program is to decrease the mortality of lung cancer by at least 20% in the next 10 years.