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Patent Search

Invention Title	ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING-BASED TECHNIQUES TO IMPROVE THE DETECTION OF LUNG CANCER
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Abstract:

Lung cancer prediction models based on machine learning may help doctors manage incidental, or screen found indeterminate nodules. A method like this might en
decision making, minimise variability in nodule categorisation, and eventually reduce the number of benign nodules that are overworked. This article reviews the prin
cancer prediction methods and discusses their respective strengths and drawbacks. We explain the road to clinical acceptance and highlight the problems of develop
validating such approaches. When using commercially available artificial intelligence (AI)-based computer-assisted detection (CAD) software to identify lung cancer no
chest radiographs from several vendors, we looked at how clinicians performed.

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING-
BASED TECHNIQUES TO IMPROVE THE DETECTION OF
LUNG CANCER
FIELD OF THE INVENTION
This invention relates to the field of Oncology. This invention addressed the effective methods
for nodule categorisation and lung cancer prediction using CT imaging data. We used a
commercial AI-based CAD to assess reader performance before and after utilising a multi-
vendor retrospective clinical study.
BACKGROUND OF THE INVENTION
Chest radiography is one of the most basic imaging tests in medicine. It is the most common
examination in routine clinical work, such as screening for chest disease, diagnostic workup,
and observation. One of the features physicians look for in these chest radiographs is nodules—
an indicator of lung cancer, which has the highest mortality rate in the world. In practice, low-
dose CT is recommended for lung cancer screening for at-risk individuals rather than chest
radiography despite a false-positive rate of approximately 27%. Several studies concluded that

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