aview:LCS

Deep learning AI-based automatic lung nodule analysis solution

Lung Cancer Screening

coreline

Introduction

We detect and analyze lung nodules with deep learning AI technology.

core:line's aview:LCS is
the AI CAD system to detect and diagnose lung nodules on chest CT images according to the LUNG-RADS. Patient communication becomes easier with the automatically generated readings and reports.

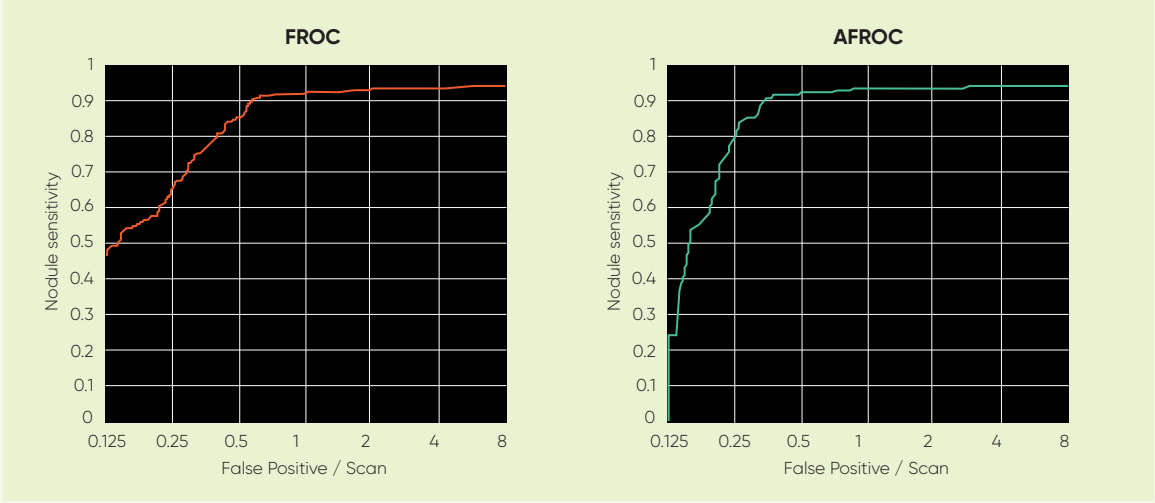
4-IN THE LUNG RUN in five EU countries, including K-LUCAS of korea and HANSE of Germany, a lung cancer screening project Selected as a solution.

aview:LCS

Performance Validation

Sensitivity 97%, Specificity 76%
Pulmonary nodule detection performance 91%

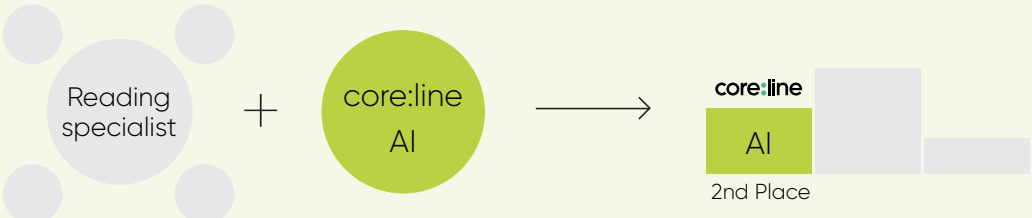
Evaluation results of the clinical trials in Korea



- 346 cases at Asan Hospital, Seoul
- Sensitivity 0.97, specificity 0.76 (ROC AUC 0.93)

Moscow LS Verification

From the result of comparing the performance of AI with 5 Reading specialists from the Moscow LS verification, it proved the 2nd best performance in terms of sensitivity (5 Reading specialists + AI).



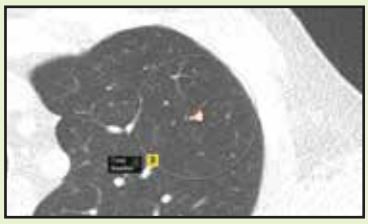
※ investigational use only

Key features

Optimize your reading time
Increase the accuracy of the result

AI-based automatic analysis

- Deep learning AI technology detects even the smallest nodules that the reader might miss.
- It provides 3D size and volume information by segmenting nodules, and automatically classifies solid, part-solid, non-solid.
- It calculates the analyzed quantitative results to generate a report.

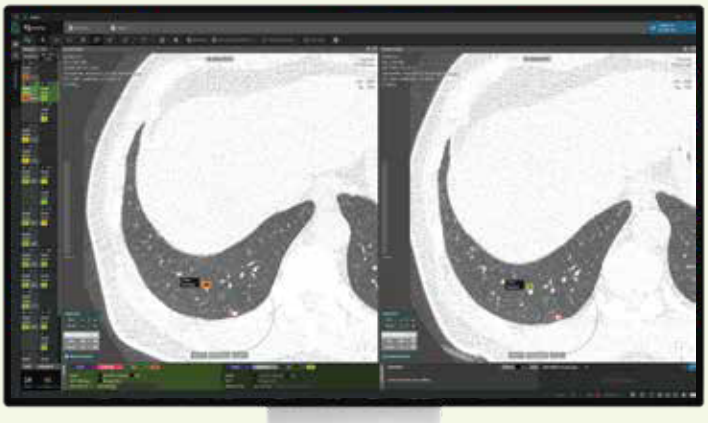


CAD & Lung-RADS

Nodule (3D)

Follow-up

It matches nodules from previous and follow-up examinations to provide changes in nodule by measuring the volume of lung nodules to see the growth and risk of nodules.



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Key features

Provides detailed results that can help improve patient communication

Detailed analysis reports

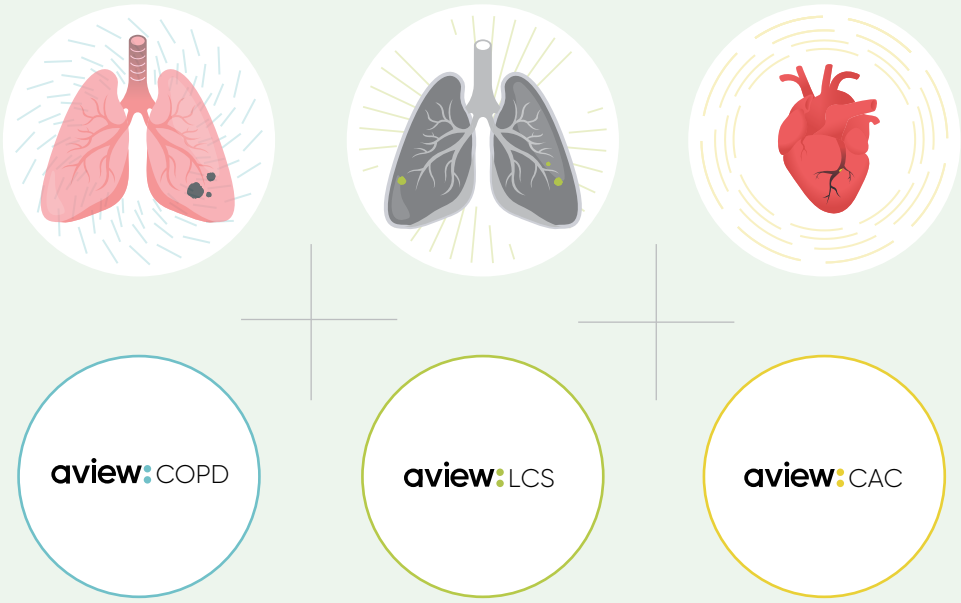
- It can also generate patient-facing detailed analysis reports automatically, giving back more information to the patient.
- Reading reports align with the Lung-RADS category and are assorted by user-confirmed nodules from its highest scores at the top.

3D clinical viewer

3D visualization of the lung and nodule for clinical overview. It can accurately identify the location and size of the nodule which can help with patient communication.

aview: LCS PLUS

Analysis for lung cancer, chronic obstructive pulmonary disease and coronary artery disease from a single examination



Coreline's AVIEW LCS Plus provides

integrated detection and fully automatic analysis of *Big 3 diseases from a single examination.

It automatically generates a pulmonary nodule readout for lung cancer diagnosis and quantifies the quantitative results of emphysema and coronary artery calcification.

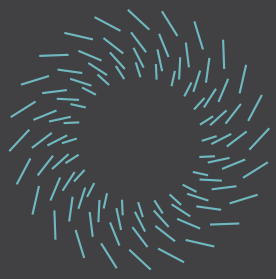
It is the Solution that can detect three diseases at the same time through low-dose chest CT image with CT kernel conversion AI technology.

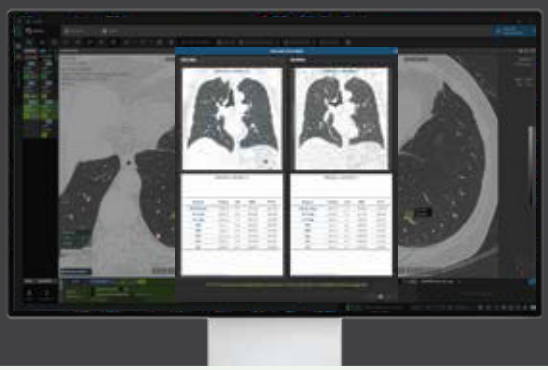
*Marjolein A Heuvelmans, Marleen Vonder, Mieneke Rook, Harry J M Groen, Geertruida H De Bock, Xueqian Xie, Maarten J Ijzerman, Rozemarijn Vliegenthart, Matthijs Oudkerk, "Screening for Early Lung Cancer, Chronic Obstructive Pulmonary Disease, and Cardiovascular Disease (the Big-3) Using Low-dose Chest Computed Tomography: Current Evidence and Technical Considerations" Journal of Thoracic Imaging (2019) pp.160-169, doi: 10.1097/RTI.0000000000000379

Emphysema

aview: COPD

Converts low-dose chest CT images taken for lung cancer screening, analyzes emphysema, and reports the results automatically.





Coronary Artery Calcium Score

aview: CAC

Converts low-dose chest CT images taken for lung cancer screening to find calcium in the coronary arteries and automatically reports the results.

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Deep learning AI-based automatic analysis solution
for big 3 diseases from a single examination

FDA Cleared CE bsi ISO 13485 Quality Management for Medical Devices CERTIFIED GMP Pmda FDA

core:line Staying ahead of symptoms

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