PHILIPS

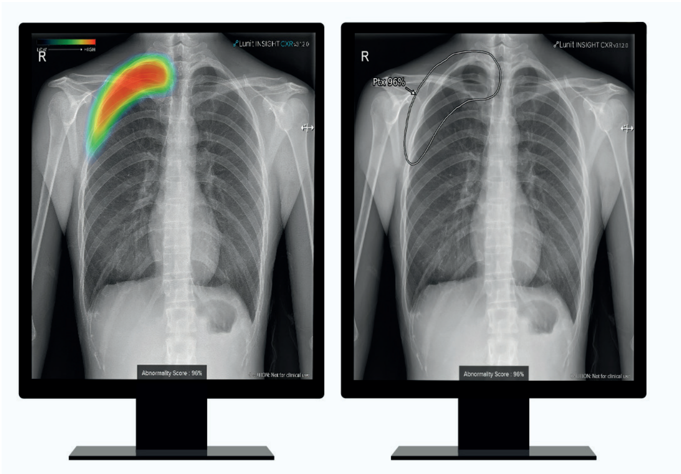
Augmented Detection,
Advanced Workflow

Augmented detection, Advanced workflow

with Lunit INSIGHT CXR*

Improved diagnostic confidence and faster time to diagnose for Chest X-ray[1,2,3,4,5,6,7,8]

Augmented Detection, Advanced Workflow with Lunit INSIGHT CXR* is an AI based clinical decision support solution which helps to improve diagnostic performance, reduce overlooked abnormalities** and streamline workflows. Using artificial intelligence and machine learning technology to expedite the treatment response.



Lunit INSIGHT CXR generates the following information:

- The location of detected abnormalities in the form of heatmaps and/or contour maps which also reflects the abnormality score.
- An abnormality score, which calculates the lesion presence, with the highest probability indicated in red.
- A Case Report that summarizes the overall analysis of presence of abnormalities on the Chest X-ray

The analyzed image is available in the PACS, providing an instant AI result for the Radiologist as a point of reference, all within seconds.

Puts AI to work for Reading Support at PACS***

With seamless workflow integration, valuable feedback is instantly sent to your PACS, which can assist the radiologist in making a more accurate, first time right diagnosis****

Accurate and efficient diagnosis boosted with AI

Detects 10 abnormal radiological findings, including lung nodule, consolidation and pneumothorax within seconds with 97-99% accuracy and supports lung tuberculosis screening[1]

Efficient reading via exam prioritization

Radiologists can prioritize exams in their reading order, resulting in a 13% reduction in reading time, and a 33% reduction in reading time for normal cases[1]

Time-to-report for critical cases can be reduced by 81%[1]

Improved reading performance

Improves diagnostic accuracy for major chest abnormalities such as malignant pulmonary nodules, pneumothorax, pneumonia, and active pulmonary tuberculosis.[2,3,4,5,6,7,8]

Radiologists using Lunit's AI have an increase in sensitivity of 32.5%, resulting in better detection of early stage overlooked lung cancer without increasing false positive cases[9]

* Available in selected countries only
** Atelectasis, Calcification, Cardiomegaly, Consolidation, Fibrosis, Mediastinal Widening, Nodule, Pleural Effusion, Pneumoperitoneum, Pneumothorax, and supports Lung Tuberculosis Screening
*** Customer cannot use the software for images coming from PACS, but only for images derived from Philips X-Ray systems
**** Please note that results can vary per case

1 Ju Gang Nam, Minchul Kim, et al. Development and validation of a deep learning algorithm detecting 10 common abnormalities on chest radiographs. European Respiratory Journal. 2020
2 Ju Gang Nam, Sunggyun Park, et al. Development and Validation of Deep Learning–based Automatic Detection. Algorithm for Malignant Pulmonary Nodules on Chest Radiographs. Radiology. 2018
3 Eui Jin Hwang, Sunggyun Park, et al. Development and Validation of a Deep Learning-based Automatic Detection. Algorithm for Active Pulmonary Tuberculosis on Chest Radiographs. Clinical Infectious Diseases. 2018
4 Eui Jin Hwang, Sunggyun Park, Kwang-Nam Jin, et al. Development and Validation of a Deep Learning–Based Automated Detection Algorithm for Major Thoracic Diseases on Chest Radiographs. JAMA Network Open. 2019
5 Jong Hyuk Lee, Sunggyun Park, et al. Deep learning–based automated detection algorithm for active pulmonary tuberculosis on chest radiographs: diagnostic performance in systematic screening of asymptomatic individuals. European Radiology. 2020
6 Eui Jin Hwang, Jung Hee Hong, et al. Deep learning algorithm for surveillance of pneumothorax after lung biopsy: a multicenter diagnostic cohort study. European Radiology. 2020
7 Jong Hyuk Lee, Hye Young Sun, et al. Performance of a Deep Learning Algorithm Compared with Radiologic Interpretation for Lung Cancer Detection on Chest Radiographs in a Health Screening Population. Radiology. 2020
8 Hyunsuk Yoo, Ki Hwan Kim, et al. Validation of a Deep Learning Algorithm for the Detection of Malignant Pulmonary Nodules in Chest Radiographs JAMA Network Open. 2020
9 Sowon Jang, Hwayoung Song, et al. Deep Learning–based Automatic Detection Algorithm for Reducing Overlooked Lung Cancers on Chest Radiographs. Radiology. 2020

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How to reach us
Please visit www.philips.com
healthcare@philips.com