



VUNO Med®

Chest X-ray™

Introduction

AI-based Diagnostic Support System for Abnormalities in Chest X-ray

VUNO Med®-Chest X-ray™ accurately and instantly detects and flags suspected chest abnormalities indicative of major pulmonary diseases from chest X-ray images.

The solution provides information on findings of chest related abnormalities, abnormality scores as well as their locations, maximizing the reading accuracy and efficiency of radiological reporting.

Key Features

Clinical Support

- Nodule/Mass
- Consolidation
- Interstitial Opacity
- Pleural Effusion
- Pneumothorax

- Detects presence of **5 lung abnormalities**, abnormality score and location based on PA and AP X-ray images
- Upcoming model will detect more than 10 lung abnormalities

Efficiency



- Detects abnormalities within **3 - 10 secs***

Integration

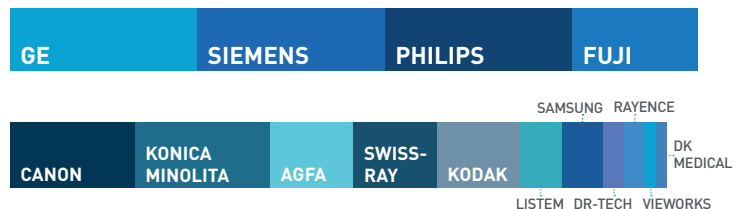


- Allows **PACS integration**
- Offers cloud-based service which requires no additional server installation
- **Embedded** into X-ray devices

* May vary depending on the internet speed and server environment

Performance Validation

Comprehensive Data

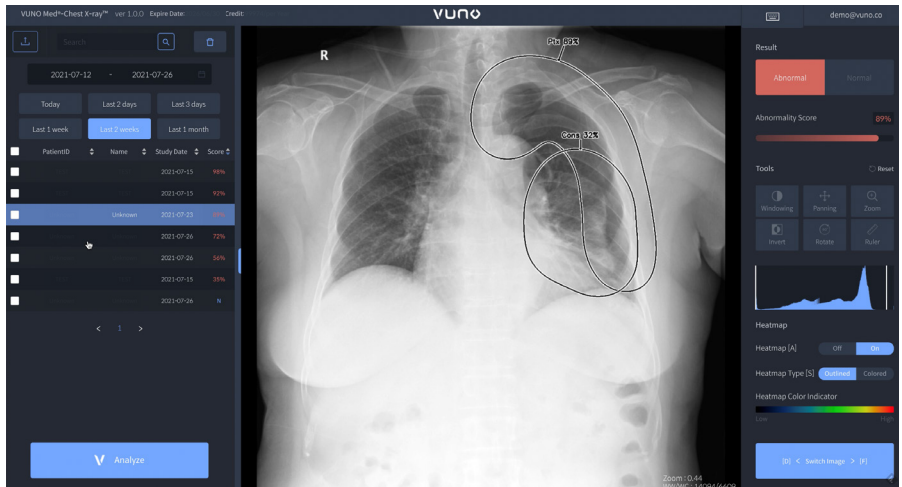


- Trained on chest X-ray images taken with imaging equipment from more than **15 global vendors¹**
- Reading accuracy of JAFROC FOM [0.96] and AUC [0.98]²

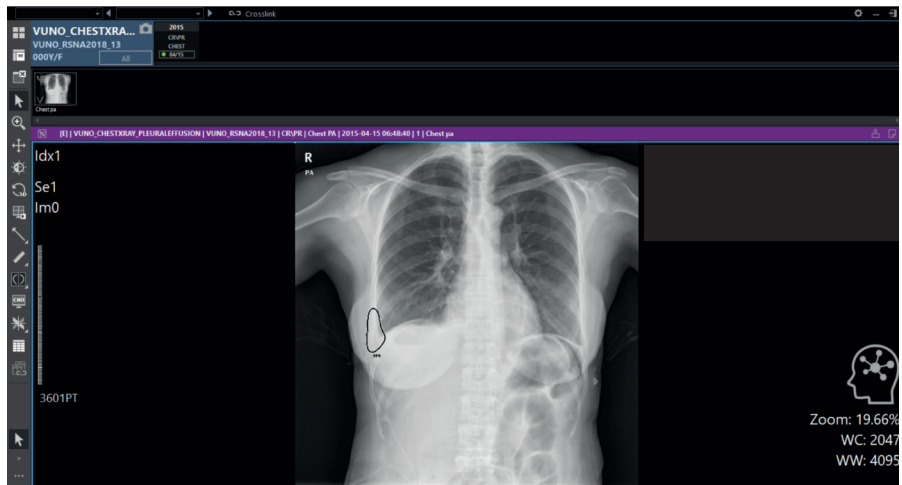
*AUROC, area under the receiver operating characteristic curve; JAFROC, Jackknife alternative free-response receiver operating characteristic curve; FOM, figure of merit; FP, false positive
Reference

- 1) Woong, et al. Deep Learning based Automatic Chest PA Screening System for various devices and hospitals. Presented at: RSNA 2018 Scientific Assembly and Annual Meeting.
- 2) Jinkyong S, et al. Value of Deep Learning-based Detection System for Multiple Major Findings on Chest Radiographs: A Randomized Crossover Study. Mar 23 2021;202818.

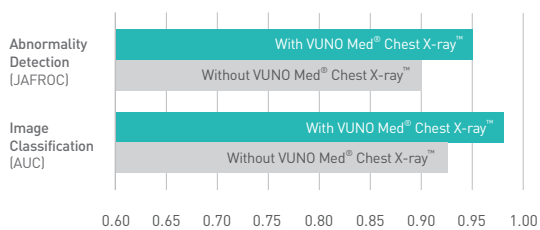
Product Screen



PACS Integration

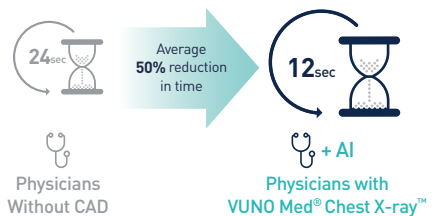


Reading Accuracy(%)



VUNO-Med Chest X-ray improved the reading performance of thoracic radiologists, general radiologists and residents¹

Reading Time(s)



VUNO-Med Chest X-ray reduced reading time by more than 50%¹

Reference

1) Added Value of Deep Learning-based Detection System for Multiple Major Findings on Chest Radiographs: A Randomized Crossover Study, Radiology, Mar. 2021