


# VUNO Med<sup>®</sup> Chest X-ray<sup>™</sup>

DEEP LEARNING-BASED DIAGNOSTIC  
SUPPORT SYSTEM FOR ABNORMALITIES  
IN CHEST X-RAY



CE

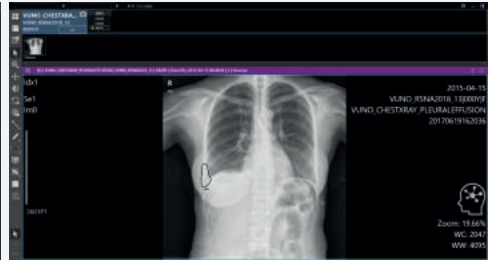
 Ministry of Food and  
Drug Safety

## Key Features

- VUNO Med-Chest X-ray can significantly reduce misdiagnosis and reading time by informing the reader the abnormality of case and location of the lesion for major thoracic findings.
- The current version of VUNO Med-Chest X-ray can find nodule/mass, consolidation, interstitial opacity, pleural effusion, and pneumothorax. Our next version capable of identifying less prevalent but clinically important findings is under development and validation.
- The system is also capable of detecting thoracic diseases such as TB and Pneumonia (RSNA 2019, SSG13-06)



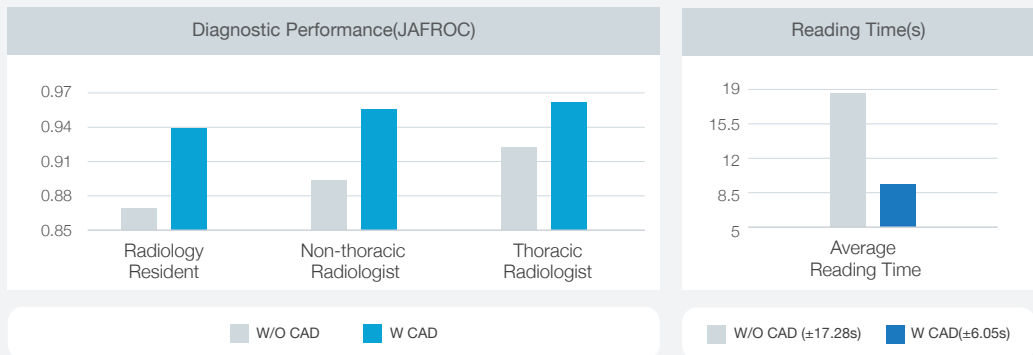
[ Product Screen ]



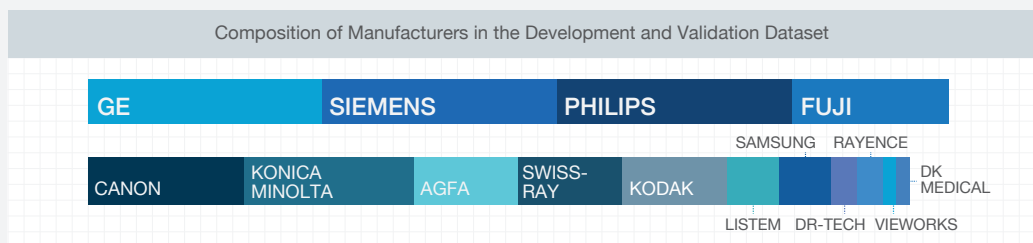
[ PACS Integration ]

## Performance Validation

- Physicians who participated in a randomized and cross-over study, conducted for MFDS approval, demonstrated more accurate diagnostic performance and shortened reading time when using VUNO Med-Chest X-ray CAD S/W<sup>1</sup>.
- In the multi-class & multi-center validation setting, VUNO Med-Chest X-ray CAD trained on CT-confirmed X-ray images shows a comparable performance with radiologists on a per-lesion basis based on the JAFROC criterion with statistical significance.<sup>2</sup>



- The algorithm built in the solution is robust to varying image characteristics associated with different hospitals, devices, and post image processing parameters.



Reference: 1. Data from clinical trial for regulatory approval

2. Deep learning-based detection system for multiclass lesions on chest radiographs: comparison with observer readings (European Radiology, 2019)