Augmented Detection, Enhanced Workflow

Lunit INSIGHT CXR is a state-of-the-art AI solution for chest x-ray that detects 10 different radiologic findings with **97-99%** accuracy.

☑ Accurate and Efficient Reading

· 97-99% Detection Accuracy

· Max 20% Increase in Reading Performance

☑ Seamless Workflow Optimization

· PACS Integration Supported

· Worklist Triage Feature Available
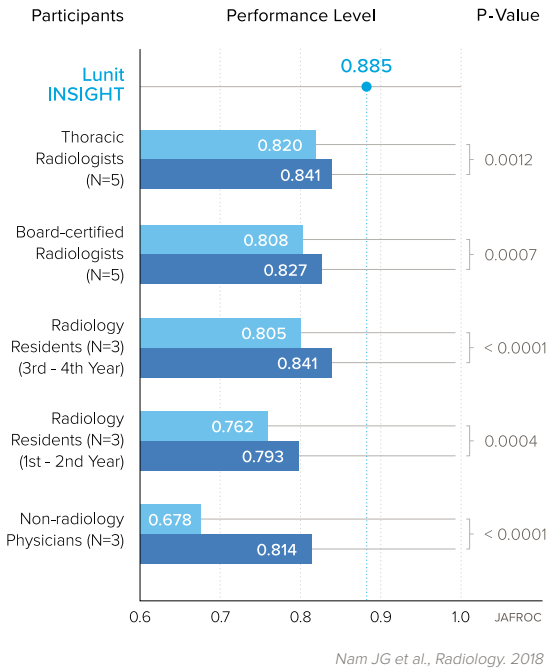
☑ Validated in Major Publications

· *European Radiology 2019*

· *Radiology 2019*

· *Scientific Reports 2019*

· *JAMA Network Open 2019*

· *Clinical Infectious Diseases 2018*

· *Radiology 2018*
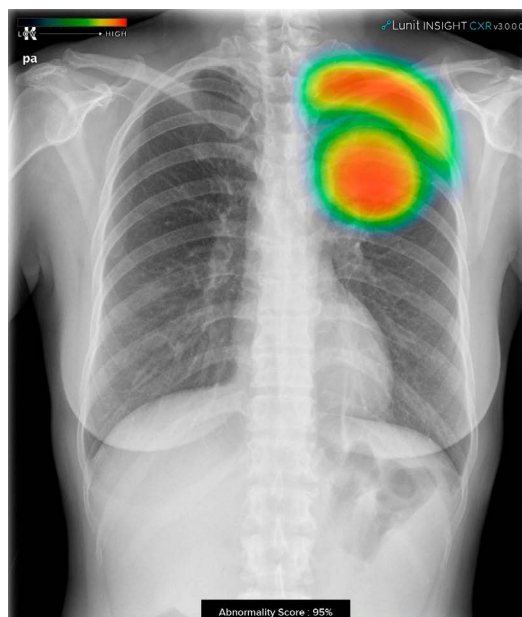
PERFORMANCE SUMMARY

Lunit INSIGHT CXR boasts superior accuracy in the detection of major lung abnormalities in
a chest x-ray image, with an average accuracy of 98.7%. Our studies show that with Lunit INSIGHT CXR,
the reading performance of a physician can increase by 20% at the highest.

Reader Performance

Participants	Performance Level	P-Value
Lunit INSIGHT	0.885	
Thoracic Radiologists (N=5)	0.820 / 0.841	0.0012
Board-certified Radiologists (N=5)	0.808 / 0.827	0.0007
Radiology Residents (N=3) (3rd - 4th Year)	0.805 / 0.841	< 0.0001
Radiology Residents (N=3) (1st - 2nd Year)	0.762 / 0.793	0.0004
Non-radiology Physicians (N=3)	0.678 / 0.814	< 0.0001

0.6   0.7   0.8   0.9   1.0   JAFROC

Nam JG et al., Radiology. 2018

■ Human Only
■ Human + Lunit INSIGHT

Accuracy by Radiologic Finding (N=2,992)

in AUC

Finding	AUC	Finding	AUC
Atelectasis	99.4	Mediastinal Widening	98.5
Calcification	97.7	Nodule	97.6
Cardiomegaly	98.9	Pleural Effusion	99.7
Consolidation	98.6	Pneumoperitoneum	99.9
Fibrosis	98.8	Pneumothorax	99.7
Normal vs Abnormal			97.2

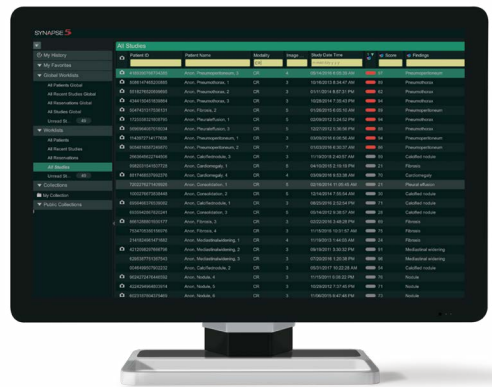*Internal Validation, October 2019*

* **Lunit INSIGHT CXR 3** detects all of the above 10 findings
  (customizable)

* **Lunit INSIGHT CXR 2** detects only the following 3 findings :
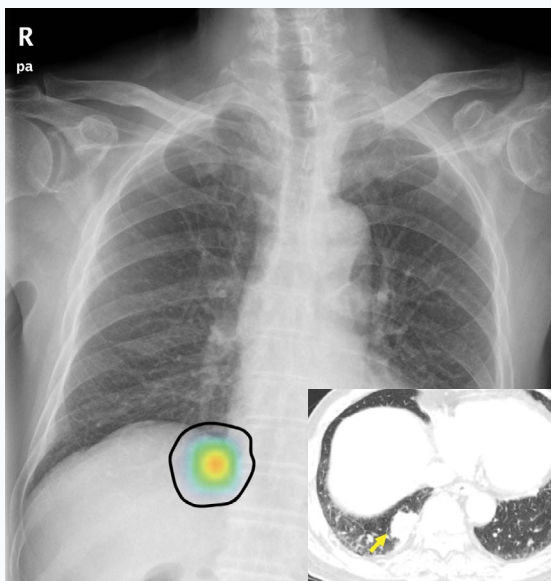 lung nodule/mass, consolidation and pneumothorax.

WORKFLOW IMPROVEMENT WITH TRIAGE
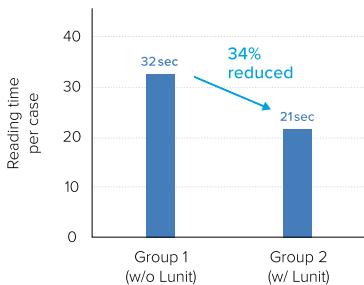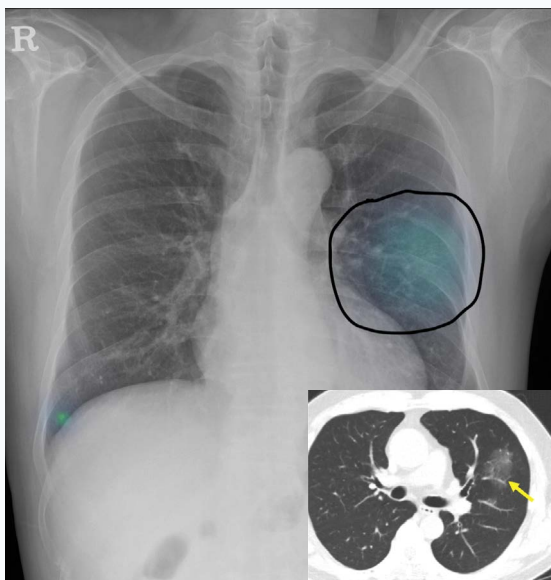
* Available on selected PACS only

Reading time per case

40
32 sec **34% reduced**
30
21 sec
20
10
0
Group 1 (w/o Lunit)   Group 2 (w/ Lunit)

CLINICAL CASES

CASE 1 Lung cancer located in the right lower lobe.
Only 5 out of 10 radiologists detected this w/o Lunit. **With Lunit, 9 were able to detect.**

CASE 2 Pneumonia located in the left middle lung area.
None of 10 radiologists detected this w/o Lunit. **With Lunit, 5 were able to detect.**

Lunit