

AI-Assisted Lung CT Analysis

Clinician Decision Support Report

XAI-TEST-001

Scan Date: N/A

Patient: N/A (N/A, N/A yrs)

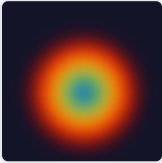
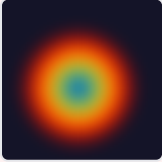
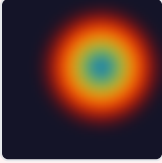
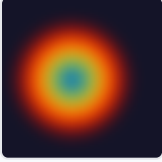
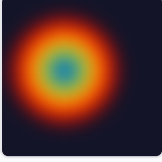
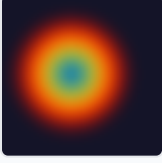

DATA QUALITY WARNINGS


- [XAI:Nodule 1] gradcam_path file missing: outputs/nodule_1_gradcam.png
- [XAI:Nodule 1] overlay_path file missing: outputs/nodule_1_overlay.png
- [XAI:Nodule 1] mask_path file missing: outputs/nodule_1_mask.npy
- [XAI:Nodule 2] gradcam_path file missing: outputs/nodule_2_gradcam.png
- [XAI:Nodule 2] overlay_path file missing: outputs/nodule_2_overlay.png
- [XAI:Nodule 2] mask_path file missing: outputs/nodule_2_mask.npy
- [XAI:Nodule 3] gradcam_path file missing: outputs/nodule_3_gradcam.png
- [XAI:Nodule 3] overlay_path file missing: outputs/nodule_3_overlay.png
- [XAI:Nodule 3] mask_path file missing: outputs/nodule_3_mask.npy
- [XAI:Nodule 4] gradcam_path file missing: outputs/nodule_4_gradcam.png
- ... and 11 more warnings

LUNG CONDITION SUMMARY

Overall Status:	Lungs appear within expected attenuation ranges.	Emphysema Score:	0.0020
Fibrosis Score:	0.1500	Consolidation Score:	0.0800
Airway Wall:	N/A	Processing Time:	5.25 sec

DETECTED PULMONARY NODULES (7)

ID	SIZE (MM)	VOLUME (MM ³)	TYPE	LOCATION	MALIGNANCY	REVIEW	XAI
1	18.5	2450	solid	right upper lobe	85.0%	Yes	
2	12.3	890	subsolid	left upper lobe	78.0%	Yes	
3	8.7	320	ground-glass	right lower lobe	72.0%	Yes	
4	6.2	150	solid	left lower lobe	45.0%	No	
5	4.5	45	solid	right middle lobe	25.0%	No	
6	3.8	28	solid	left upper lobe	12.0%	No	
7	5.2	70	subsolid	right lower lobe	35.0%	No	

 **3 high-risk nodule(s) detected** — Clinical correlation and follow-up recommended.

CLINICAL IMPRESSION

7 nodules detected. 3 high-risk nodules require clinical attention. XAI visualizations available for all high-risk findings.

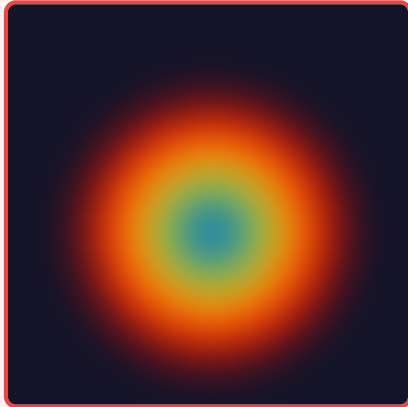
EXPLAINABILITY SUMMARY

AI explainability visualizations are available for 7 of 7 detected nodules.

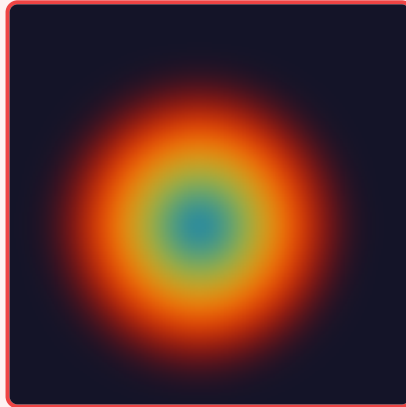
Visualizations available for 7/7 nodules.

AI Explainability Visualizations

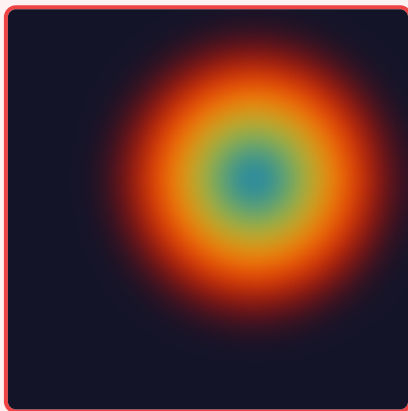
The following heatmaps show regions that influenced the AI's risk assessment for high-risk nodules.



Nodule #1 (85% risk)
GRADCAM



Nodule #2 (78% risk)
GRADCAM



Nodule #3 (72% risk)
GRADCAM

⚠ AI-Assisted Screening Notice: This report was generated by automated AI analysis and is intended for decision support only. All findings must be validated by a qualified radiologist or physician. AI predictions are probabilistic and should not be used as the sole basis for clinical decisions.