

AI-Assisted Lung CT Analysis

Clinician Decision Support Report

06d306c6-e76c-4789-83df-3712c7ecae66

Scan Date: 2026-02-12

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

⚠ DATA QUALITY WARNINGS

- [Schema:nodules → 0 → type] 'benign' is not one of ['solid', 'subsolid', 'ground-glass', 'ground_glass', 'ggo', 'unknown']
- [Nodule 1] Unknown type 'benign' - expected solid/subsolid/ground-glass

LUNG CONDITION SUMMARY

Overall Status:	AI-Analyzed	Emphysema Score:	0.0000
Fibrosis Score:	0.0000	Consolidation Score:	0.0000
Airway Wall:	Normal	Processing Time:	1.89 sec

DETECTED PULMONARY NODULES (1)

ID	SIZE (MM)	VOLUME (MM ³)	TYPE	LOCATION	MALIGNANCY	REVIEW	XAI
1	6.0	167.0	benign	RLL	1.1%	No	No XAI

CLINICAL IMPRESSION

AI detected 1 nodule(s), all classified as low risk. Routine follow-up suggested.

EXPLAINABILITY SUMMARY

No AI explainability visualizations were generated for this scan.

Visualizations available for 0/1 nodules.

⚠ 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.

AI-Assisted Clinical Discussion

Clinical Discussion: The low-dose CT demonstrates a solitary, solid pulmonary nodule measuring 6 mm (volume $\approx 167 \text{ mm}^3$) in the right lower lobe. The AI algorithm classifies the lesion as benign with a malignancy probability of 1.08 % (confidence $\approx 99\%$). According to Lung-RADS, a solid nodule $\leq 6 \text{ mm}$ in a patient without high-risk features is assigned Category 2 (benign finding). No additional nodules or parenchymal abnormalities (emphysema, fibrosis, consolidation) are identified, and the "needs_review" flag is false. Given the nodule's small size, smooth morphology (implicitly benign), and very low estimated malignancy risk, the differential diagnosis is limited to a benign granuloma or a small intrapulmonary lymph node. Malignancy is unlikely but cannot be entirely excluded without histologic confirmation; however, the imaging characteristics do not raise suspicion for primary lung cancer, carcinoid, or metastatic disease. Per the Fleischner Society 2023 guidelines for solid nodules $\leq 6 \text{ mm}$ in a low-risk individual, routine imaging follow-up is not required; a shared decision-making discussion with the referring clinician may be appropriate if clinical concern persists. No uncertainty flags were generated by the AI model, and no further immediate review is indicated. AI-assisted analysis — clinical correlation required.

Generated by HealthATM AI (Groq/openai-gpt-oss-120b) — Clinical correlation required.