

The Weill Cornell Lung Cancer Appropriate Use Criteria (AUC) addresses twenty-eight clinical conditions and makes recommendations to optimize diagnostic effectiveness.

Common Clinical Conditions	
0	Not Related to Lung Cancer
1	High-Risk Appearing Nodule
2	Initial Screen, does not meet Lung Cancer Screening Inclusion Criteria
3	Initial Screen, meets Lung Cancer Screening Inclusion Criteria
4	Known Lung Cancer, Follow Up Surgery
5	Known Lung Cancer, Staging
6	Known Lung Cancer, Treatment Complication
7	Lung Cancer Care, no AUC Applicable
8	Lung Cancer or Recurrence Suspected
9	Lung Cancer Screening Follow Up, Abnormal Finding on CT
10	Multiple Part Solid Nodules, Largest Solid Component <6 mm
11	Multiple Part Solid Nodules, Largest Solid Component 6+ mm
12	Multiple Pulmonary Nodules, Solid, <6 mm, High-Risk Exposure
13	Multiple Pulmonary Nodules, Solid, 6+ mm, High-Risk Exposure
14	Multiple Pulmonary Nodules, Solid, Low Risk, <6 mm
15	Multiple Pulmonary Nodules, Solid, Low Risk, 6+ mm
16	Nodule or other Incidental Finding on Chest X-Ray
17	Pulmonary Nodule, age <35
18	Pulmonary Nodule, Cancer or Fever
19	Single Non-Solid Nodule, Ground Glass, <6 mm
20	Single Non-Solid Nodule, Ground Glass, 6+ mm
21	Single Part Solid Nodule, Solid Component <6 mm
22	Single Part Solid Nodule, Solid Component 6+ mm
23	Single Pulmonary Nodule, Solid, High-Risk exposure, <6 mm
24	Single Pulmonary Nodule, Solid, High-Risk exposure, 6-8 mm
25	Single Pulmonary Nodule, Solid, High-Risk exposure, 8+ mm
26	Single Pulmonary Nodule, Solid, Low Risk, <6 mm
27	Single Pulmonary Nodule, Solid, Low Risk, 6-8 mm
28	Single Pulmonary Nodule, Solid, Low Risk, 8+ mm

The Lung Cancer AUC is activated when a user orders one of the following five Advanced Imaging Procedures.

Advanced Imaging Procedures	
1	CT Chest without Contrast
2	CT Chest with Contrast
3	CT Chest with and without Contrast
4	CT Lung Cancer Screen
5	PET/CT Whole Body

The Lung Cancer AUC recommends one of the following six Imaging Procedures based on the clinical condition.

Advanced Imaging Procedures	
1	CT Chest without Contrast
2	CT Chest with Contrast
3	CT Chest with and without Contrast
4	CT Lung Cancer Screen
5	PET/CT Whole Body
6	CT Chest, Abdomen, Pelvis with Contrast

Logic Tables

The following Clinical Condition Logic Tables provide the Lung Cancer AUC logic for each clinical condition.

The logic includes priors, contraindications, metal reduction and advanced US techniques where applicable.

Key

Value	Score
Blank	No Score Assigned
0	AUC Not Applicable
1	Inappropriate
2	Contact Radiology
3	Appropriate
4	Appropriate Preferred

Condition 0 – Not Related to Lung Cancer

Base Condition	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT Whole Body	CT Chest/Abd/Pelvis W	Reference
Not related to Lung Cancer	0	0	0	0	0	0	

Condition 1 - High-Risk Appearing Nodule

Condition	Contraindication	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
High-Risk Appearing Nodule		4	4	1	1	1		
High-Risk Appearing Nodule	IOD	4	1	1	1	1		

Condition 2 - Initial Screen, does not meet Lung Cancer Screening Inclusion Criteria

Condition	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Initial Screen, does not meet Lung Cancer Screening inclusion criteria	1	1	1	1	1		

Condition 3 – Initial Screen, meets Lung Cancer Screening Inclusion Criteria

Condition	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Initial screen, meets Lung Cancer Screening inclusion criteria	1	1	1	4	1		

Condition 4 – Known Lung Cancer, Follow Up Surgery

Condition	Contraindication	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Known lung cancer, follow-up surgery		3	4	1	1	1		
Known lung cancer, follow-up surgery	IOD	4	1	1	1	1		

Condition 5 – Known Lung Cancer, Staging

Condition	Contraindication	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Known lung cancer, staging		1	1	1	1	4	4	
Known lung cancer, staging	IOD	4	1	1	1	4		

Condition 6 – Known Lung Cancer, Treatment Complication

Condition	Contraindication	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Known lung cancer, treatment complication		3	4	3	1	1		
Known lung cancer, treatment complication	IOD	4	1	1	1	1		

Condition 7 – Lung Cancer Care, no AUC Applicable

Condition	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Lung cancer care, no AUC applicable	0	0	0	0	0		

Condition 8 – Lung Cancer or Recurrence Suspected

Condition	Contraindications	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis w	Reference
Suspected lung cancer or suspected recurrence		3	4	1	1	1		
Suspected lung cancer or suspected recurrence	IOD	4	1	1	1	1		

Condition 9 – Lung Cancer Screening Follow Up, Abnormal Finding on CT

Condition	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Lung cancer screening follow-up, Abnormal finding on CT	0	0	0	0	0		

Condition 10 – Multiple Part Solid Nodules, Largest Solid Component <6 mm

Condition	Contraindication	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Multiple part solid nodules, largest solid component <6 mm		4	4	1	1	1		
Multiple part solid nodules, largest solid component <6 mm	IOD	4	1	1	1	1		

Condition 11 – Multiple Part Solid Nodules, Largest Solid Component 6+ mm

Condition	Contraindication	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	pET/CT	CT Chest/Abd/Pelvis W	Reference
Multiple part solid nodules, largest solid component 6+ mm		4	4	1	1	1		
Multiple part solid nodules, largest solid component 6+ mm	IOD	4	1	1	1	1		

Condition 12 – Multiple Pulmonary Nodules, Solid, <6 mm, High-Risk Exposure

Condition	Contraindication	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	pET/CT	CT Chest/Abd/Pelvis W	Reference
Multiple pulmonary nodules, solid, <6 mm, high-risk exposure		4	4	1	1	1		
Multiple pulmonary nodules, solid, <6 mm, high-risk exposure	IOD	4	1	1	1	1		

Condition 13 – Multiple Pulmonary Nodules, Solid, 6+ mm, High-Risk Exposure

Condition	Contraindication	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Multiple pulmonary nodules, solid, 6+ mm, high-risk exposure		4	4	1	1	1		
Multiple pulmonary nodules, solid, 6+ mm, high-risk exposure	IOD	4	1	1	1	1		

Condition 14 – Multiple Pulmonary Nodules, Solid, Low Risk, <6 mm

Condition	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Multiple pulmonary nodules, solid, low risk, <6 mm	1	1	1	1	1		

Condition 15 - Multiple Pulmonary Nodules, Solid, Low Risk, 6+ mm

Condition	Contraindication	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Multiple pulmonary nodules, solid, low risk, 6+ mm		4	4	1	1	1		
Multiple pulmonary nodules, solid, low risk, 6+ mm	IOD	4	1	1	1	1		

Condition 16 - Nodule or other Incidental Finding on Chest X-Ray

Condition	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Nodule or Other Incidental finding on Chest X-Ray	0	0	0	0	0		LBP

Condition 17 – Pulmonary Nodule, age <35

Condition	Contraindication	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Pulmonary nodule, age <35		4	4	1	1	1		
Pulmonary nodule, age <35	IOD	4	1	1	1	1		

Condition 18 – Pulmonary Nodule, Cancer or Fever

Condition	Contraindication	CT Chest W/O	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Pulmonary nodule, cancer or fever		3	4	1	1	1		
Pulmonary nodule, cancer or fever	IOD	4	1	1	1	1		

Condition 19 – Single Non-Solid Nodule, Ground Glass, <6 mm

Condition	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Single nonsolid nodule, ground glass, <6 mm	1	1	1	1	1		

Condition 20 - Single Non-Solid Nodule, Ground Glass, 6+ mm

Condition	Contraindications	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Single nonsolid nodule, ground glass, 6+ mm		4	4	1	1	1		
Single nonsolid nodule, ground glass, 6+ mm	IOD	4	1	1	1	1		

Condition 21 – Single Part Solid Nodule, Solid Component <6 mm

Condition	Contraindication	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Single part solid nodule, solid component <6 mm		4	4	1	1	1		
Single part solid nodule, solid component <6 mm	IOD	4	1	1	1	1		

Condition 22 – Single Part Solid Nodule, Solid Component 6+ mm

Condition	Contraindication	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Single part solid nodule, solid component 6+ mm		4	4	1	1	1		
Single part solid nodule, solid component 6+ mm	IOD	4	1	1	1	1		

Condition 23 – Single Pulmonary Nodule, Solid, High-Risk exposure, <6 mm

Condition	Contraindication	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Single pulmonary nodule, solid, high-risk exposure, <6 mm		4	4	1	1	1		
Single pulmonary nodule, solid, high-risk exposure, <6 mm	IOD	4	1	1	1	1		

Condition 24 – Single Pulmonary Nodule, Solid, High-Risk exposure, 6-8 mm

Condition	Contraindication	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	pET/CT	CT Chest/Abd/Pelvis W	Reference
Single pulmonary nodule, solid, high-risk exposure, 6-8 mm		4	4	1	1	1		
Single pulmonary nodule, solid, high-risk exposure, 6-8 mm	IOD	4	1	1	1	1		

Condition 25 – Single Pulmonary Nodule, Solid, High-Risk exposure, 8+ mm

Condition	Contraindication	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Single pulmonary nodule, solid, high-risk exposure, 8+ mm		4	4	1	1	4		
Single pulmonary nodule, solid, high-risk exposure, 8+ mm	IOD	4	1	1	1	4		

Condition 26 – Single Pulmonary Nodule, Solid, Low Risk, <6 mm

Condition	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Single pulmonary nodule, solid, low risk, <6 mm	1	1	1	1	1		

Condition 27 – Single Pulmonary Nodule, Solid, Low Risk, 6-8 mm

Condition	Contraindication	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Single pulmonary nodule, solid, low risk, 6-8 mm		4	4	1	1	1		
Single pulmonary nodule, solid, low risk, 6-8 mm	IOD	4	1	1	1	1		

Condition 28 – Single Pulmonary Nodule, Solid, Low Risk, 8+ mm

Condition	Contraindication	CT Chest WO	CT Chest W	CT Chest WWO	CT Lung Cancer Screen	PET/CT	CT Chest/Abd/Pelvis W	Reference
Single pulmonary nodule, solid, low risk, 8+ mm		4	4	1	1	4		
Single pulmonary nodule, solid, low risk, 8+ mm	IOD	4	1	1	1	4		

Sources

The Lung Cancer Screening AUC has been developed by Weill Cornell Medicine
utilizing the following four published sources and local best practice.

No.	Source
1	Guidelines for management of incidental pulmonary nodules detected on CT images. MacMahon H, Naidich DP, Goo JM, Lee KS, Leung AN, Mayo JR et al. . https://www.ncbi.nlm.nih.gov/pubmed/28240562
2	U.S. Preventive Services Task Force Statement. Screening for lung cancer. Moyer VA. https://www.ncbi.nlm.nih.gov/pubmed/24378917
3	Methods for staging non-small cell lung cancer: Diagnosis and management of lung cancer. Silvestri GA, Gonzalez AV, Jantz MA, et al. . https://www.ncbi.nlm.nih.gov/pubmed/23649440
4	Follow-up and surveillance of the patient with lung cancer after curative-intent therapy. Colt HG, Murgu SD, Korst RJ, et al. . https://www.ncbi.nlm.nih.gov/pubmed/23649451
LBP	Weill Cornell Medicine Local Best Practice