
9TH EDITION AJCC AND CASE REVIEWS

2025 KCR SPRING TRAINING

TRACY SUMLER, BA, ODS-C



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AJCC Cancer Staging System

VERSION NINE

Lung



ACS **AJCC**
American Joint Committee on Cancer
American College of Surgeons

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Lung	
8253	Invasive mucinous adenocarcinoma
8253	Adenocarcinoma <i>in situ</i> , mucinous
8254	Mixed invasive mucinous and non-mucinous adenocarcinoma
8257	Mixed invasive adenocarcinoma, non-mucinous
8257	Mixed invasive adenocarcinoma, mucinous
8260	Papillary adenocarcinoma
8265	Micropapillary adenocarcinoma
8310	Hyalinized clear cell carcinoma
8333	Fetal rhabdomyosarcoma
8430	Mucinous sarcomatoid carcinoma
8480	Colloid adenocarcinoma
8551	Acinar adenocarcinoma
8560	Adenocarcinoma
8562	Epithelioid myoepithelial carcinoma
8972	Pleuropulmonary blastoma
8980	Carcinoid carcinoma
8982	Myoepithelial carcinoma
8998	Mucinous adenocarcinoma

Cases diagnosed in 2025 forward:

Malignant Myoepithelioma / Myoepithelial Carcinoma (8982) of the Lung (C34.0-34.9) have been changed from 8th Edition Soft Tissue Abdomen & Thoracic and is now included in Version 9 Lung.

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AJCC version 9 Lung

Summary of Changes: Primary Tumor

Change	Details of Change	Level of Evidence
Definition of Primary Tumor (T)	Invasion of adjacent lobe has been added as a T2a category criteria	III
Definition of Primary Tumor (T)	Azygos vein, thoracic nerve roots (i.e., T1, T2) and stellate ganglion added as a T3 category criteria	III
Definition of Primary Tumor (T)	Thymus, vagus nerve, supra-aortic arteries, brachiocephalic veins, subclavian vessels, vertebral body, lamina, spinal canal, cervical nerve roots, brachial plexus (i.e., trunks, divisions, cords or terminal nerves) are specified as T4 category criteria	III

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AJCC version 9 Lung		AJCC T2 update	
<p>T2 </p> <p>Version 9</p>	<p>Tumor > 3 cm but ≤ 5 cm in greatest dimension</p> <p>OR</p> <p>Tumor ≤ 4 cm with one or more of the following features:</p> <ul style="list-style-type: none"> • Invades visceral pleura • <u>Invades an adjacent lobe</u> • Involves main bronchus (up to but not including the carina) <p>or</p> <p>associated with atelectasis or obstructive pneumonitis, extending to the hilar regions, involving either part of or the entire lung</p>	<p>T2</p> <p>8th Edition</p>	<p>Tumor >3 cm but ≤5 cm or having any of the following features:</p> <ul style="list-style-type: none"> • Involves the main bronchus regardless of distance to the carina, but without involvement of the carina • Invades visceral pleura (PL1 or PL2) • Associated with atelectasis or obstructive pneumonitis that extends to the hilar region, involving part or all of the lung
<p>Tumors with these features are classified:</p> <p>T2a: Tumor size less than or equal to 4.0 cm.</p> <p>T2b: Tumor size greater than 4.0 cm but less than or equal to 5.0 cm.</p>			
<p>Invasion of adjacent lobe has been added as a T2a category criteria</p>			

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AJCC version 9 Lung		AJCC T3 update	
<p>T3 </p> <p>Version 9</p>	<p>Tumor > 5 cm but ≤ 7 cm in greatest dimension</p> <p>OR</p> <p>Tumor ≤ 7 cm with one or more of the following features:</p> <ul style="list-style-type: none"> • Invades parietal pleura or chest wall • Invades pericardium, phrenic nerve or <u>azygos vein</u> <p>Although these structures lie within the mediastinum, the degree of mediastinal penetration by the tumor needed to invade these structures is not counted as T4</p> <ul style="list-style-type: none"> • Involves <u>thoracic nerve roots (i.e., T1, T2) or stellate ganglion</u> • Separate tumor nodule(s) in the same lobe as the primary 	<p>T3</p> <p>8th Edition</p>	<p>Tumor >5 cm but ≤7 cm in greatest dimension or directly invading any of the following: parietal pleura (PL3), chest wall (including superior sulcus tumors), phrenic nerve, parietal pericardium; or separate tumor nodule(s) in the same lobe as the primary</p>
<p>Azygos vein, thoracic nerve roots (i.e., T1, T2) and stellate ganglion added as a T3 category criteria</p>			

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AJCC version 9 Lung

T4 ★
Version 9

AJCC T4 update

Tumor > 7 cm in greatest dimension
OR
Tumor of any size with one or more of the following features:

- Invades mediastinum (except structures listed in T3), thymus, trachea, carina, recurrent laryngeal nerve, vagus nerve, esophagus or diaphragm
- Invades heart, great vessels (aorta, superior/inferior vena cava, intrapericardial pulmonary arteries/veins), supra-aortic arteries or brachiocephalic veins
- Invades subclavian vessels, vertebral body, lamina, spinal canal, cervical nerve roots or brachial plexus (i.e., trunks, divisions, cords or terminal nerves)
- Separate tumor nodule(s) in a different ipsilateral lobe than that of the primary

Thymus, vagus nerve, supra-aortic arteries, brachiocephalic veins, subclavian vessels, vertebral body, lamina, spinal canal, cervical nerve roots, brachial plexus (i.e., trunks, divisions, cords or terminal nerves) are specified as T4 category criteria

T4
8th Edition

Tumor >7 cm or tumor of any size invading one or more of the following: diaphragm, mediastinum, heart, great vessels, trachea, recurrent laryngeal nerve, esophagus, vertebral body, or carina; separate tumor nodule(s) in an ipsilateral lobe different from that of the primary

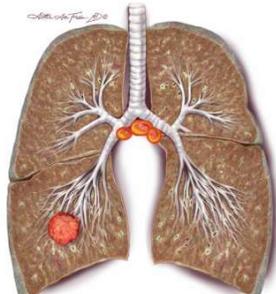
7

AJCC version 9 Lung

Summary of Changes: Regional Lymph Nodes

Change	Details of Change	Level of Evidence
Definition of Regional Lymph Nodes (N)	N2 subdivided into N2a (involvement of a single N2 nodal station) and N2b (involvement of multiple N2 nodal stations)	II

N2a



Metastasis to single ipsilateral mediastinal or subcarinal lymph node station

N2b



Metastasis to multiple ipsilateral mediastinal and/or subcarinal lymph node stations

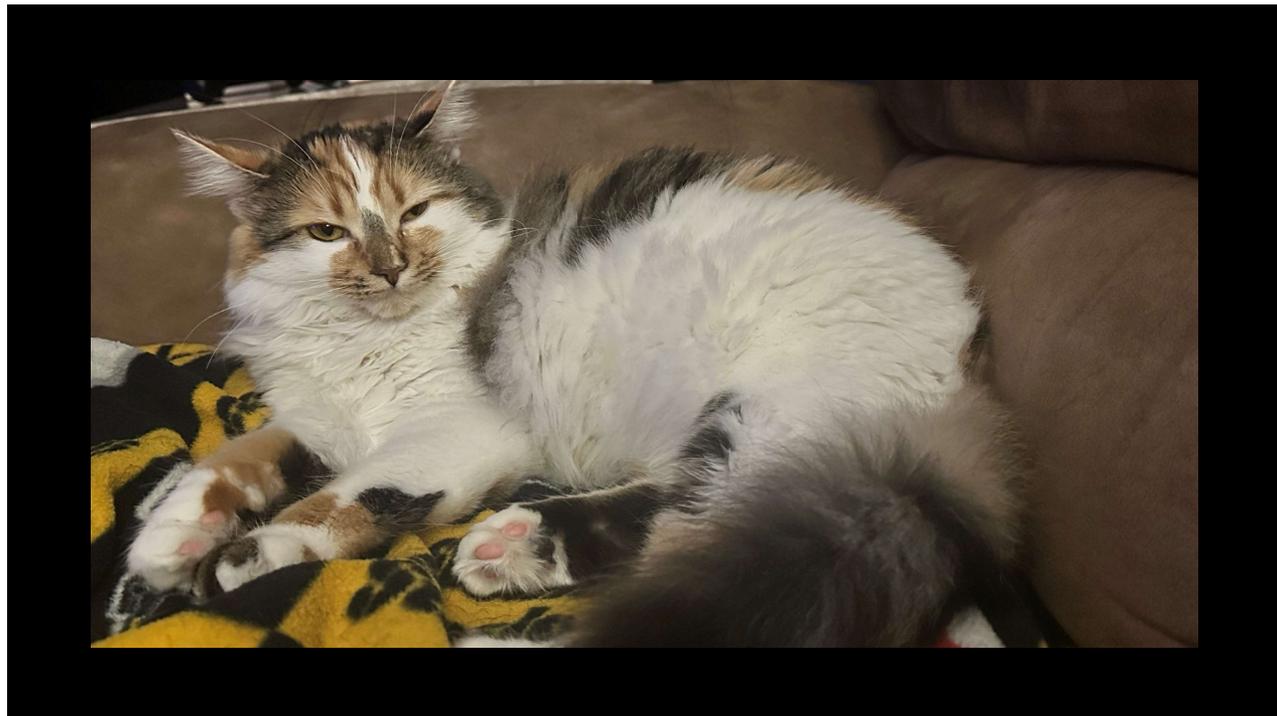
8

AJCC version 9 Lung		AJCC N2 update
N2	Version 9 ★	Tumor involvement of ipsilateral mediastinal nodal station(s) and/or subcarinal lymph node station
N2a		Tumor involvement of a <u>single</u> ipsilateral mediastinal nodal station or of the subcarinal nodal station
N2b		Tumor involvement of <u>multiple</u> ipsilateral mediastinal nodal stations with or without involvement of the subcarinal nodal station

N2 subdivided into N2a (involvement of a single N2 nodal station) and N2b (involvement of multiple N2 nodal stations)

N2	8 th Edition	Metastasis in ipsilateral mediastinal and/or subcarinal lymph node(s)
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AJCC version 9 Lung

Summary of Changes: Mets at Diagnosis

<i>Change</i>	<i>Details of Change</i>	<i>Level of Evidence</i>
Definition of Distant Metastasis (M)	M1c subdivided into M1c1 (multiple extrathoracic metastases in a single organ system) and M1c2 (multiple extrathoracic metastases in multiple organ systems)	II



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AJCC version 9 Lung

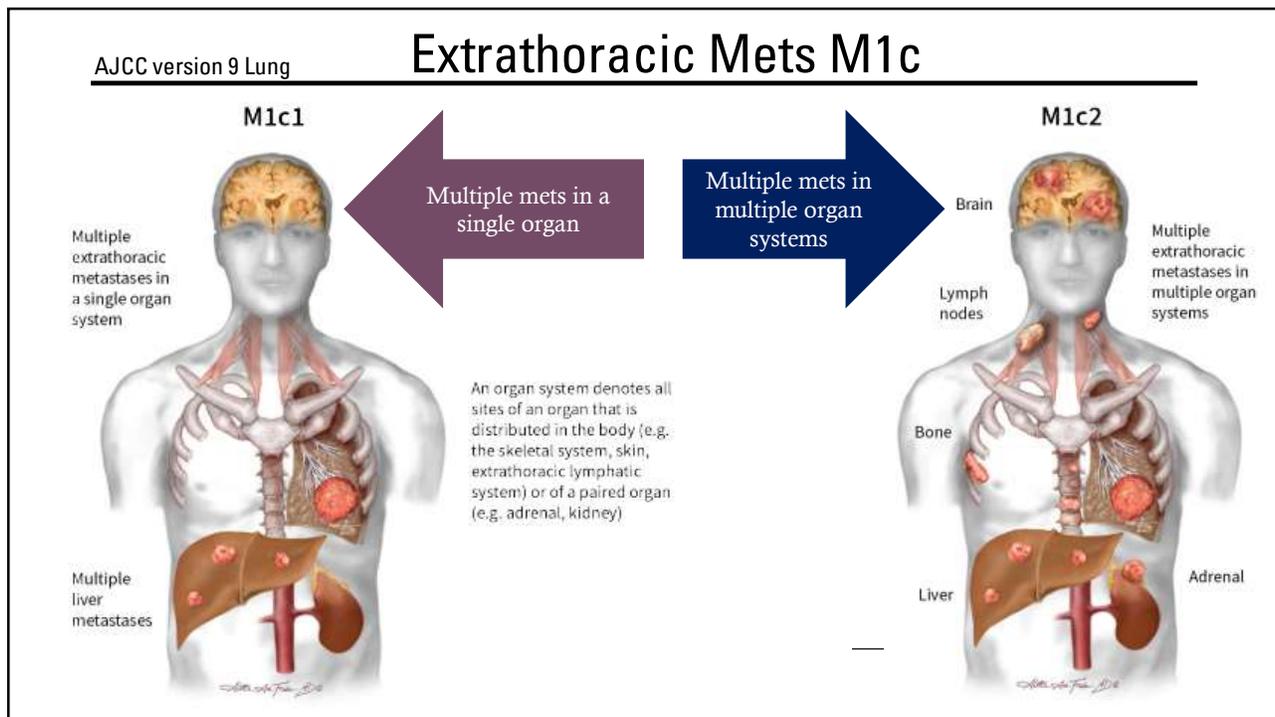
AJCC M1c update

cM1c	★ Multiple extrathoracic metastases in a single or multiple organ system(s)
cM1c1	Multiple extrathoracic metastases in a single organ system
Version 9	For example, the skeleton is considered one organ. Several metastases in a single bone or several metastases in several bones are classified as M1c1.
cM1c2	Multiple extrathoracic metastases in multiple organ systems

M1c subdivided into M1c1 (multiple extrathoracic metastases in a single organ system) and M1c2 (multiple extrathoracic metastases in multiple organ systems)

M1c 8 th Edition	Multiple extrathoracic metastases in a single organ or in multiple organs
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AJCC version 9 Lung Summary of Changes: Stage Group

Change	Details of Change	Level of Evidence
AJCC Prognostic Stage Groups	T1 N1 M0 changed from stage IIB to stage IIA	II
AJCC Prognostic Stage Groups	T1 N2a M0 assigned to stage IIB	II
AJCC Prognostic Stage Groups	T2 N2b M0 assigned to stage IIIB	II
AJCC Prognostic Stage Groups	T3 N2a M0 assigned to stage IIIA	II

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CASE 1**HISTORY AND PHYSICAL**

67-year-old married, non-Hispanic, black male presented to Facility A ED with c/o SOA and chest pain. CT chest at that time revealed a lung nodule. Follow up CT Chest showed interval increase in size of the nodule. Subsequent PET and biopsy was performed. Biopsy was positive for adenocarcinoma. Former 30 CPY cigarette smoker at 1 ppd x 30 years. No smokeless tobacco or vape use. Passive smoke exposure as child. Mother had lung cancer. CoMorb: HTN. Occupation: Pharmacist.

Physical Exam per Dr. Bob Barker at consult - Lungs: CTA B, no wheezes or rhonchi. Lymphatics: No palpable LAD on neck, supraclavicular, or axillary regions.

Insurance at diagnosis: BCBS

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CASE 1**IMAGING**

1/2/25 (Facility A) CT Chest: solid nodule in the periphery of the right lower lobe previously measured 8.2 mm with solid component 6 mm; now measures 1.8 cm consistent with a slow growing carcinoma.

1/5/25 (Facility A) PET Scan: ground glass nodule in the posterior right lower lobe measures 1.6 cm, SUV 1.87; no hypermetabolic adenopathy or distant mets.

1/8/25 (Facility A) CT-guided biopsy of 1.8 cm right lower lobe nodule.

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CASE 1**OPERATIVE REPORT**

1/15/25 (Facility A) Bronchoscopy, Right Robotic Lower Lobectomy, Mediastinal Lymph Node Dissection, Intercostal Nerve Blocks per Robert Barker MD. Discharged on 1/19/25 with no readmission either planned or unplanned. No complications.

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CASE 1**PATHOLOGY REPORT**

Path # 123 (Facility A) 1/8/25: Lung, Right Lower Lobe, Ct Guided Core Biopsy: Non-Small Cell Carcinoma. Scant viable tissue to subcategorize tumor type, large cells are noted....Defer to a repeat biopsy or surgical resection for final histologic type.

Path # 234 (Facility A) 1/15/25:

ADDENDUM: PD-L1 IHC 22C3 pharmDx* is performed and the results are as follows: - Tumor proportion score (TPS)*: 95% - Expression level: Positive for PD-L1 expression (TPS 95%)

Final Diagnosis

- A. BRONCHIAL MARGIN: - NO TUMOR SEEN.
- B. LEVEL 8: - NO EVIDENCE OF METASTATIC CARCINOMA, ONE LYMPH NODE (0/1).
- C. 4 R: - NO EVIDENCE OF METASTATIC CARCINOMA, ONE LYMPH NODE (0/1). - GRANULOMATOUS INFLAMMATION WITH GMS STAIN POSITIVE FOR BUDDING YEAST, MOST CONSISTENT WITH HISTOPLASMA SPECIES.
- D. LEVEL 7: - METASTATIC CARCINOMA, ONE OF TWO LYMPH NODES (1/2).**
- E. 11 R: - NO EVIDENCE OF METASTATIC CARCINOMA, ONE LYMPH NODE (0/1).
- F. 10 R: - NO EVIDENCE OF METASTATIC CARCINOMA, TWO LYMPH NODES (0/2).
- G. **RIGHT LOWER LOBECTOMY: - INVASIVE LARGE CELL CARCINOMA WITH NEUROENDOCRINE DIFFERENTIATION (1.7 cm), POORLY DIFFERENTIATED, WITH VISCERAL PLEURAL INVASION.** - MARGINS FREE OF TUMOR. - NO EVIDENCE OF METASTATIC CARCINOMA, THREE PERIBRONCHIAL LYMPH NODES(0/3).

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CASE 1

TREATMENT PLAN

1/2/25: Diagnosed on imaging 'consistent with carcinoma'.

1/8/25: CT-Guided biopsy confirmed cancer diagnosis.

1/15/25: Lobectomy with lymph node dissection. 1 Subcarinal lymph node involved (pN2a) - coded to NED d/t negative margins and 1 of 10 lymph nodes positive.

2/1/25: Adjuvant Radiation Therapy.

2/26/25: Adjuvant Keytruda planned for 1 year.

Let's code this case

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WHAT IS THE HISTOLOGY CODE?

Solid Tumor Rules

Effective with Cases Diagnosed 1/1/2018 and Forward

2025 Update



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Serban Negoita, MD, PhD, CTR, NCI SEER

Suggested citation: Dickie, L., Johnson, CH., Adams, S., Negoita, S. (November 2024). Solid Tumor Rules. National Cancer Institute, Rockville, MD 20850.

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WHAT IS THE HISTOLOGY?

-Answer-

G3 8012/3 Large Cell Carcinoma, Poorly Differentiated per Solid Tumor Rule H6.

Final Diagnosis: INVASIVE LAR
CARCINOMA WITH NEUROEND
DIFFERENTIATION, POORLY DIF

Rule H6 Code the **subtype/variant** when there is a **NOS** and a **single subtype/variant** of that NOS, such as the following:

Note: See **Table 3** in the Equivalent Terms and Definitions to find NOS and subtypes/variants.

Specific or NOS Histology Term and Code	Synonym of Specific or NOS
Intrapulmonary thymoma (arising within lung) 8580/3 <i>Note:</i> Intrapulmonary thymoma is always malignant 3.	
Large cell carcinoma 8012 <i>Note 1:</i> A diagnosis of large cell carcinoma is usually followed by further diagnostic testing to identify the subtype/variant. <i>Note 2:</i> The diagnosis of large cell carcinoma usually happens when there is a small	Large cell anaplastic carcinoma Large cell carcinoma NOS Large cell carcinoma with no additional stains (subtype/variant)
	features (subtype/variant – no ICD-O code) Large cell undifferentiated carcinoma

Note 3: Large cell carcinoma with **neuroendocrine (NE) differentiation** lacks NE morphology and is coded as **large cell carcinoma**, **not large cell neuroendocrine carcinoma.**

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COMPLETE THE EOD CODING

Lung [V9: 2025+] (09360)

EOD--Schema

EOD--Primary Tumor Not recorded

EOD--Regional Nodes Not recorded

Date Regional Lymph Node Dissection / / Date Flag:

Nodes Positive

Nodes Examined

EOD--Mets Not recorded

Mets at DX - Bone

Mets at DX - Brain

Mets at DX - Liver

Mets at DX - Lung

Mets at DX - Distant LN

Mets at DX - Other

Derived Summ Stg 2018 Calculate

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EOD PRIMARY TUMOR: 450, VISCERAL PLEURAL INVASION PER SURGICAL PATHOLOGY REPORT

450	Any size tumor <ul style="list-style-type: none"> > Atelectasis/obstructive pneumonitis <ul style="list-style-type: none"> > Extends to hilar region, involving part or all of lung > Pleura, NOS > Pulmonary ligament > Visceral pleura (PL1, PL2, or NOS)
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[https://staging.seer.cancer.gov/eod_public/schema/3.2/lung_v9_2025/?breadcrumbs=\(~schema_list~\)](https://staging.seer.cancer.gov/eod_public/schema/3.2/lung_v9_2025/?breadcrumbs=(~schema_list~))

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EOD REGIONAL LYMPH NODES: 400, ONE STATION 7 SUBCARINAL LYMPH NODE PER SURGICAL PATH REPORT.

400	IPSILATERAL NODES ONLY (SUBCARINAL OR MEDIASTINAL, Stations 2-9) <ul style="list-style-type: none"> > See code 700 for contralateral or bilateral nodes (Stations 2 and 4 only) Subcarinal nodes (Station 7) involved ONLY OR One Mediastinal Station involved WITH or WITHOUT Subcarinal nodes (Station 7) > Other mediastinal nodal stations include: 2R, 2L, 3a, 3p, 4R, 4L, 5, 6, 8, 9
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Answers:

EOD--Schema	Lung [V9: 2025+] (09360)
EOD--Primary Tumor	450 Any size tumor ; - Atelectasis/obstructive pneumonitis; + Extends to hilar region, invo...
EOD--Regional Nodes	400 IPSILATERAL NODES ONLY (SUBCARINAL OR MEDIASTINAL, Stations 2-9); * See code 700 for cont...
Date Regional Lymph Node Dissection	01 / 15 / 2025 Date Flag:
Nodes Positive	1
Nodes Examined	10
EOD--Mets	00 No distant metastasis; Unknown if distant metastasis
Mets at DX - Bone	0 No
Mets at DX - Brain	0 No
Mets at DX - Liver	0 No
Mets at DX - Lung	0 No
Mets at DX - Distant LN	0 No
Mets at DX - Other	0 No
Derived Summ Stg 2018	4 Calculate

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COMPLETE THE GRADE(S) AND SSDI CODING

Grade/SSDI--Schema	Lung [V9: 2025+] (09360)
Grade Clinical	Not recorded
Grade Pathological	Not recorded
Grade Post Therapy Clin (yc)	
Grade Post Therapy Path (yp)	
Separate Tumor Nodules	Not recorded
Visceral and Parietal Pleural Invasion	Not recorded
ALK Rearrangement	
EGFR Mutational Analysis	
PDL1	

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Answers:

Grade/SSDI--Schema	Lung [V9: 2025+] (09360)
Grade Clinical	9 Grade cannot be assessed (GX); Unknown
Grade Pathological	3 G3: Poorly differentiated
Grade Post Therapy Clin (yc)	
Grade Post Therapy Path (yp)	
Separate Tumor Nodules	0 No separate tumor nodules; single tumor only; Separate tumor nodules of same histologic t...
Visceral and Parietal Pleural Invasion	4 Invasion of visceral pleura present, NOS ; Stated as PL1 or PL2
ALK Rearrangement	9 Not documented in medical record; ALK Rearrangement not assessed or unknown if assessed
EGFR Mutational Analysis	9 Not documented in medical record; EGFR not assessed or unknown if assessed
PDL1	95.0

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COMPLETE THE CODING



Directly Coded Summ Stg 2018	
Tumor Size Summary	
AJCC Staging Edition	09
AJCC cTNM T	Not recorded
T Suffix	Not recorded
N	Not recorded
N Suffix	Not recorded
M	Not recorded
Clin Stage Group	Not recorded
AJCC pTNM T	Not recorded
T Suffix	Not recorded
N	Not recorded
N Suffix	Not recorded
M	Not recorded
Path Stage Group	Not recorded
AJCC Post Tx Clin TNM T	Not recorded
T Suffix	Not recorded
N	Not recorded
N Suffix	Not recorded
M	Not recorded
Post Tx Clin Stage Group	Not recorded

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AJCC ID	Lung [V9] (9014)
Directly Coded Summ Stg 2018	4 Regional (both 2 and 3) v
Tumor Size Summary	17
AJCC Staging Edition	09
AJCC cTNM T	cT1b v
T Suffix	Not recorded v
N	cN0 v
N Suffix	Not recorded v
M	cM0 v
Clin Stage Group	1A2 IA2 v
AJCC pTNM T	pT2a
T Suffix	Not recorded v
N	pN2a v
N Suffix	Not recorded v
M	cM0 v
Path Stage Group	3A IIIA v

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CASE 2

HISTORY AND PHYSICAL

52-year-old divorced, white, non-Hispanic, male presented to ER c/o SOA, shoulder and back pain, and hemoptysis. Imaging noted a large right upper lobe lung mass c/w lung carcinoma. CoMorb: obesity, HTN, CAD. Current 50 CPY cigarette smoker at diagnosis (2 ppd x 25 years) and vape use. No passive smoking history. Father had prostate cancer and brother had NHL. Occupation: Truck Driver (Transportation, Communications, Public Utilities).

SS# XXX-XX-XXXX confirmed by pt demographics form completed by patient.

Insurance at diagnosis: UHC

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CASE 2

IMAGING

1/2/25 (Facility C) Chest Xray: Masslike opacity replacing the right upper lobe. Suspicion is for malignancy.

1/2/25 (Facility C) CT Chest: An 11 cm mass encompassing the entire right upper lobe with chest wall, mediastinal and right hilar invasion, suggestive of primary pulmonary malignancy. Mass also invades the thoracic nerve right at T1, and vertebral body. Right lower lobe and a portion of the right middle lobe remain aerated with centrilobular emphysema with bullae formation.

Bulky mediastinal lymphadenopathy suspicious for metastatic involvement right upper paratracheal lymph node measuring 2.5 cm, subcarinal lymph nodes measuring 2.1 cm in greatest dimension, and multiple right hilar lymph nodes measuring 1.8 cm in greatest dimension.

1/3/25 (Facility C) CT-Guided biopsy of right upper lobe mass. See pathology.

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CASE 2

IMAGING

1/3/25 (Facility C) Brain MRI: This patient has multiple enhancing brain lesions compatible with multiple brain metastases that are too numerous to count but at least 35 enhancing cerebral lesions several of which measure just over a centimeter in size and have some mild surrounding edema. The remainder measure less than a centimeter in size and have little to no surrounding edema and there are at least 8 separate cerebellar lesions, the largest in the left cerebellum measures 12 x 11 x 11 mm and has 3 x 2.5 cm of surrounding edema and the largest right cerebellar lesion measures 8 x 7 x 6 mm and has no surrounding edema. There is no significant mass effect. The ventricles are normal in size and there is no midline shift.

There are 2 separate tiny enhancing calvarial lesions involving the anterior superomedial right and left frontal bones measuring 6 mm in size compatible with calvarial METS.

1/7/25 (Facility C) PET Scan: The cavitary right upper lobe mass measures 10.4 cm with a max SUV of 12.6. The tumor invades the T2 vertebral body with loss of plane between the vertebral body and spinal canal. Mediastinal and hilar lymph nodes noted on prior CT have an SUV of 10.4 consistent with metastatic involvement. There are numerous metastatic lytic lesions in the skull, clavicle, sternum, right humerus, cervical and thoracic spine, left iliac wing, and left femur with SUVs of at least 6.2.

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CASE 2

PATHOLOGY REPORT

Path # 234 (Facility C) 1/3/25: Lung, Right Upper Lobe, Ct Guided Core Biopsy: Adenocarcinoma, moderately differentiated, of pulmonary origin.

Comment: Immunostains for CK7, CK20, GATA3, ER, PR, HER2/neu, Ki67, CDX2, PAX8, WT1 and TTF-1 are performed utilizing appropriate controls. Adenocarcinoma shows immunoreactivity CK7 and TTF-1 with rare focal immunoreactivity for CK20 noted. Ki67 is increased and estimated at 35-40% tumor cells. Malignancy is judged nonreactive for WT1, GATA3, PAX8, ER, PR, HER2/neu and CDX2. Immunostain for Napsin A was performed following review of the initial immunostain panel results and carcinoma is immunoreactive for this marker supporting pulmonary origin. Results of immunostaining are consistent with moderate to moderately differentiated adenocarcinoma of pulmonary origin.

Caris Life Sciences:

PD-L1 positive TPS 15%

BRAF mutation not detected

EGFR pathogenic variant Exon 19|p.E746_A750del

KRAS mutation not detected

ALK negative

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CASE 2

TREATMENT PLAN

1/2/25: Diagnosed on imaging.

1/3/25: CT-Guided biopsy proved cancer diagnosis.

1/15/25 – 1/25/25: Palliative radiation therapy to lung, bone mets, and WBI.

2/1/25: Palliative Carboplatin/Paclitaxel/Keytruda x 6 cycles

Let's code this case



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Case 2 Coding

COMPLETE THE EOD CODING

EOD--Schema	Lung [V9: 2025+] (09360)
EOD--Primary Tumor	Not recorded
EOD--Regional Nodes	Not recorded
Date Regional Lymph Node Dissection	<input type="text"/> / <input type="text"/> / <input type="text"/> Date Flag:
Nodes Positive	<input type="text"/>
Nodes Examined	<input type="text"/>
EOD--Mets	Not recorded
Mets at DX - Bone	<input type="text"/>
Mets at DX - Brain	<input type="text"/>
Mets at DX - Liver	<input type="text"/>
Mets at DX - Lung	<input type="text"/>
Mets at DX - Distant LN	<input type="text"/>
Mets at DX - Other	<input type="text"/>
Derived Summ Stg 2018	<input type="text"/> Calculate

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Case 2 Coding Answers

EOD--Schema	Lung [V9: 2025+] (09360)
EOD--Primary Tumor	700 Heart; Inferior vena cava; Neural foramina; Vertebra(e) (vertebral body); Visceral perica...
EOD--Regional Nodes	450 IPSILATERAL NODES ONLY (SUBCARINAL OR MEDIASTINAL, Stations 2-9); * See code 700 for cont...
Date Regional Lymph Node Dissection	<input type="text"/> / <input type="text"/> / <input type="text"/> Date Flag:
Nodes Positive	98
Nodes Examined	00
EOD--Mets	45 Multiple extrathoracic metastases in multiple organs system; *Example: Liver and distant ...
Mets at DX - Bone	1 Yes
Mets at DX - Brain	1 Yes
Mets at DX - Liver	0 No
Mets at DX - Lung	0 No
Mets at DX - Distant LN	0 No
Mets at DX - Other	0 No
Derived Summ Stg 2018	7 Calculate

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Case 2 Coding

COMPLETE THE GRADE(S) AND SSDI CODING

Grade/SSDI--Schema Lung [V9: 2025+] (09360)

Grade Clinical Not recorded

Grade Pathological Not recorded

Grade Post Therapy Clin (yc)

Grade Post Therapy Path (yp)

Separate Tumor Nodules Not recorded

Visceral and Parietal Pleural Invasion Not recorded

ALK Rearrangement

EGFR Mutational Analysis

PDL1 15.0

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Case 2 Coding Answers

Grade Clinical 2 G2: Moderately differentiated

Grade Pathological 9 Grade cannot be assessed (GX); Unknown

Grade Post Therapy Clin (yc)

Grade Post Therapy Path (yp)

Separate Tumor Nodules 0 No separate tumor nodules; single tumor only; Separate tumor nodules of same histologic t...

Visceral and Parietal Pleural Invasion 9 Not documented in medical record; No surgical resection of primary site is performed; Vis...

ALK Rearrangement 0 Normal; ALK negative; Negative for rearrangement, no rearrangement identified, no mutatio...

EGFR Mutational Analysis 1 Abnormal (mutated)/detected in exon(s) 18, 19, 20, and/or 21

PDL1 15.0

Caris Life Sciences:
 PD-L1 positive TPS 15%
 EGFR pathogenic variant Exon 19|p.E746_A750del
 ALK negative



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Case 2 Coding

COMPLETE THE CODING



Directly Coded Summ Stg 2018	<input type="text" value=""/>
Tumor Size Summary	<input type="text" value=""/>
AJCC Staging Edition	09
AJCC cTNM T	<input type="text" value="Not recorded"/>
T Suffix	<input type="text" value="Not recorded"/>
N	<input type="text" value="Not recorded"/>
N Suffix	<input type="text" value="Not recorded"/>
M	<input type="text" value="Not recorded"/>
Clin Stage Group	<input type="text" value="Not recorded"/>
AJCC pTNM T	<input type="text" value="Not recorded"/>
T Suffix	<input type="text" value="Not recorded"/>
N	<input type="text" value="Not recorded"/>
N Suffix	<input type="text" value="Not recorded"/>
M	<input type="text" value="Not recorded"/>
Path Stage Group	<input type="text" value="Not recorded"/>
AJCC Post Tx Clin TNM T	<input type="text" value="Not recorded"/>
T Suffix	<input type="text" value="Not recorded"/>
N	<input type="text" value="Not recorded"/>
N Suffix	<input type="text" value="Not recorded"/>
M	<input type="text" value="Not recorded"/>
Post Tx Clin Stage Group	<input type="text" value="Not recorded"/>

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Case 2 Coding Answers

AJCC ID	Lung [V9] (9014)
Directly Coded Summ Stg 2018	<input type="text" value="7 Distant"/>
Tumor Size Summary	<input type="text" value="110"/>
AJCC Staging Edition	09
AJCC cTNM T	<input type="text" value="cT4"/>
T Suffix	<input type="text" value="Not recorded"/>
N	<input type="text" value="cN2b"/>
N Suffix	<input type="text" value="Not recorded"/>
M	<input type="text" value="cM1c2"/>
Clin Stage Group	<input type="text" value="4B IVB"/>

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Potential Pitfalls in Coding Lung: EOD Regional Lymph Nodes

400	<p>IPSILATERAL NODES ONLY (SUBCARINAL OR MEDIASTINAL, Stations 2-9)</p> <p>> See code 700 for contralateral or bilateral nodes (Stations 2 and 4 only)</p> <p>Subcarinal nodes (Station 7) involved ONLY OR One Mediastinal Station involved WITH or WITHOUT Subcarinal nodes (Station 7)</p> <p>> Other mediastinal nodal stations include: 2R, 2L, 3a, 3p, 4R, 4L, 5, 6, 8, 9</p>	N2a
450	<p>IPSILATERAL NODES ONLY (SUBCARINAL OR MEDIASTINAL, Stations 2-9)</p> <p>> See code 700 for contralateral or bilateral nodes (Stations 2 and 4 only)</p> <p>Two or more mediastinal nodal stations involved WITH or WITHOUT Subcarinal lymph nodes (Station 7)</p> <p>> Other mediastinal nodal stations include: 2R, 2L, 3a, 3p, 4R, 4L, 5, 6, 8, 9</p>	N2b
500	<p>IPSILATERAL NODES ONLY (SUBCARINAL OR MEDIASTINAL, Stations 2-9)</p> <p>> See code 700 for contralateral or bilateral nodes (Stations 2 and 4 only)</p> <p>Mediastinal nodal stations involved, <u>unknown</u> how many WITH or WITHOUT involvement of subcarinal nodes</p> <p>> Other mediastinal nodal stations include: 2R, 2L, 3a, 3p, 4R, 4L, 5, 6, 8, 9</p> <p>Mediastinal nodes, <u>NOS</u></p>	N2

NOS Code
Use sparingly

41

Nodal Map

page 50 of v9
AJCC
and
page 434 of 8th
Edition AJCC

Supraclavicular zone

- 1 Low cervical, supraclavicular, and sternal notch nodes

SUPERIOR MEDIASTINAL NODES

Upper zone

- 2R Upper Paratracheal (right)
- 2L Upper Paratracheal (left)
- 3a Prevascular
- 3p Retrotracheal
- 4R Lower Paratracheal (right)
- 4L Lower Paratracheal (left)

AORTIC NODES

AP zone

- 5 Subaortic
- 6 Para-aortic (ascending aorta or phrenic)

INFERIOR MEDIASTINAL NODES

Subcarinal zone

- 7 Subcarinal

Lower zone

- 8 Paraesophageal (below carina)
- 9 Pulmonary ligament

N1 NODES

Hilar/Interlobar zone

- 10 Hilar
- 11 Interlobar

Peripheral zone

- 12 Lobar
- 13 Segmental
- 14 Subsegmental

42



Beware the N2 subcategory!



When T is...	And N is...	And M is...	Then the stage group is...
TX	N0	M0	Occult carcinoma
Tis	N0	M0	0
T1mi-T1a	N0	M0	IA1
T1b	N0	M0	IA2
T1c	N0	M0	IA3
T2a	N0	M0	IB
T2b	N0	M0	IIA
T1	N1	M0	IIA
T3	N0	M0	IIIB
T1	N2a	M0	IIIB
T2a-T2b	N1	M0	IIIB
T4	N0	M0	IIIA
T3-T4	N1	M0	IIIA
T1	N2b	M0	IIIA
T2-T3	N2a	M0	IIIA
T2-T3	N2b	M0	IIIB
T4	N2a-N2b	M0	IIIB
T1-T2	N3	M0	IIIB
T3-T4	N3	M0	IIIC
Any T	Any N	M1a-M1b	IVA
Any T	Any N	M1c1-M1c2	IVB



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Potential Pitfalls in Coding Lung: EOD Mets at Dx

40	Multiple extrathoracic metastases in a single organ system <i>Example: The skeleton is considered one organ. Several metastases in a single bone OR several metastases in several bones are classified as M1c1.</i>	M1c1
45	Multiple extrathoracic metastases in multiple organs system <i>Example: Liver and distant lymph nodes</i>	M1c2
50	Multiple extrathoracic metastases, <u>unknown</u> if single or multiple organ systems	M1

NOS Code

44



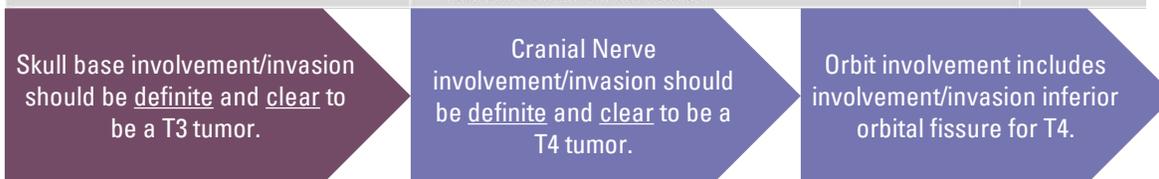
45

The image shows the cover of the 'AJCC Cancer Staging System' for 'Nasopharynx', Version Nine. The cover has a blue background with white text. On the right side, there is a photograph of a fluffy calico kitten sitting on a stack of books. At the bottom, the logos for ACS and AJCC are displayed, along with the full names of the American Joint Committee on Cancer and the American College of Surgeons. A stylized graphic of a pen nib with colorful rings is also visible on the right side of the cover.

46

Summary of Changes: Primary Tumor Clarifications

Change	Details of Change	Level of Evidence
Definition of Primary Tumor (T)	<p>T3 clarification:</p> <ul style="list-style-type: none"> Skull base involvement should be unequivocal, and bony sclerosis alone on MRI and CT does not qualify as T3 <p>T4 clarification:</p> <ul style="list-style-type: none"> Involvement of orbit includes inferior orbital fissure Cranial nerve involvement may be unequivocal radiological and/or clinical involvement 	II



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<p>T3</p> <p>Version 9</p>	<p>Tumor with <u>unequivocal</u> infiltration into any of the following bony structures:</p> <ul style="list-style-type: none"> skull base (including pterygoid structures) paranasal sinuses cervical vertebrae
<p>T4</p>	<p>Tumor with any of the following:</p> <ul style="list-style-type: none"> intracranial extension <u>unequivocal</u> radiological and/or clinical involvement of <u>cranial nerves</u> involvement of hypopharynx involvement of orbit (<u>including inferior orbital fissure</u>) involvement of parotid gland extensive soft tissue infiltration beyond the anterolateral surface of the lateral pterygoid muscle

<p>T3 clarification:</p> <ul style="list-style-type: none"> Skull base involvement should be unequivocal, and bony sclerosis alone on MRI and CT does not qualify as T3 <p>T4 clarification:</p> <ul style="list-style-type: none"> Involvement of orbit includes inferior orbital fissure Cranial nerve involvement may be unequivocal radiological and/or clinical involvement 	<p>8th Edition</p> <p>T3</p> <p>Tumor with infiltration of bony structures at skull base, cervical vertebra, pterygoid structures, and/or paranasal sinuses</p> <p>T4</p> <p>Tumor with intracranial extension, involvement of cranial nerves, hypopharynx, orbit, parotid gland, and/or extensive soft tissue infiltration beyond the lateral surface of the lateral pterygoid muscle</p>
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48

Summary of Changes: Regional Lymph Nodes Clarifications only

Change	Details of Change	Level of Evidence
Definition of Regional Lymph Nodes (N)	Addition of advanced radiologic and/or clinical extranodal extension as N3 criterion. Advanced radiologic ENE is unequivocal evidence of tumor invasion through the nodal capsule into one or more adjacent structures: muscle, skin, or neurovascular structures.	II

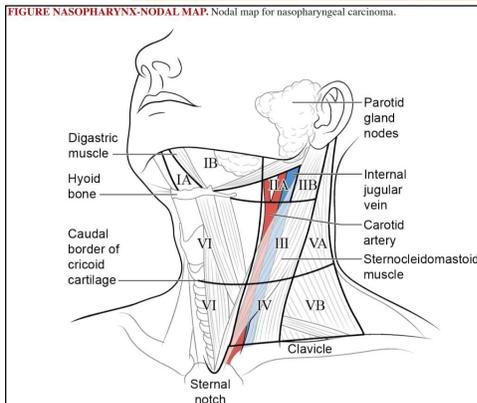
Clinical ENE should be definite and clear.
Support ENE in your text

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N3

Version 9 → Tumor involvement of unilateral or bilateral cervical lymph node(s), AND any of the following:

- > 6 cm in greatest dimension
- extension below the caudal border of cricoid cartilage
- advanced radiologic extranodal extension with involvement of adjacent muscles, skin, and/or neurovascular bundle

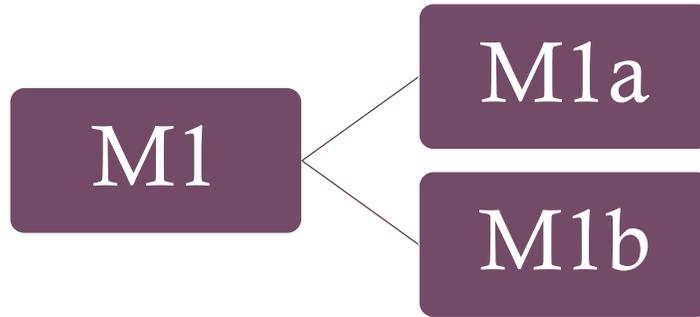


8th Edition → **N3** Unilateral or bilateral metastasis in cervical lymph node(s), larger than 6 cm in greatest dimension, and/or extension below the caudal border of cricoid cartilage

50

Summary of Changes: Mets at Diagnosis

Change	Details of Change	Level of Evidence
Definition of Distant Metastasis (M)	Subdivision of M1 into M1a (≤ 3 metastatic lesions) and M1b (> 3 metastatic lesions)	II



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M Category	M Criteria
cM0	No distant metastasis
cM1	Distant metastasis
cM1a	≤ 3 metastatic lesions in one or more organs/sites
cM1b	> 3 metastatic lesions in one or more organs/sites
pM1	Microscopic confirmation of distant metastasis
pM1a	Microscopic confirmation of ≤ 3 metastatic lesions in one or more organs/sites
pM1b	Microscopic confirmation of > 3 metastatic lesions in one or more organs/sites

M Category	M Criteria
M0	No distant metastasis
M1	Distant metastasis

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Summary of Changes: Stage Group

Change	Details of Change	Level of Evidence
AJCC Prognostic Stage Groups	<ul style="list-style-type: none"> • Non-metastatic patients are re-grouped into Stages I-III instead of Stages I-IVA • Stage I is revised from T1 N0 M0 to T0-2 N0-1 M0, and subdivided into IA (T1-2 N0 M0) and IB (T0-2 N1 M0) • Stage III is revised to Stage II (T0-2 N2 M0 or T3 N0-2 M0) • Stage IVA is revised to Stage III (T4 or N3 with M0) • Stage IVB is revised to Stage IVA (M1a) and IVB (M1b) 	II

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Summary of Changes: Stage Group

When T is...	And N is...	And M is...	Then the stage group is...
Tis	N0	M0	0
T1-T2	N0	M0	IA
T0-T2	N1	M0	IB
T0-T2	N2	M0	II
T3	N0-N2	M0	II
T4	Any N	M0	III
Any T	N3	M0	III
Any T	Any N	M1a	IVA
Any T	Any N	M1b	IVB

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AJCC version 9 Nasopharynx
Stage Group Comparison

When T is...	And N is...	And M is...	Then the stage group is...
Tis	N0	M0	0
T1-T2	N0	M0	IA
T0-T2	N1	M0	IB
T0-T2	N2	M0	II
T3	N0-N2	M0	II
T4	Any N	M0	III
Any T	N3	M0	III
Any T	Any N	M1a	IVA
Any T	Any N	M1b	IVB



**Version
9**



8th Edition

When T is...	And N is...	And M is...	Then the stage group is...
Tis	N0	M0	0
T1	N0	M0	I
T1, T0	N1	M0	II
T2	N0	M0	II
T2	N1	M0	II
T1, T0	N2	M0	III
T2	N2	M0	III
T3	N0	M0	III
T3	N1	M0	III
T3	N2	M0	III
T4	N0	M0	IVA
T4	N1	M0	IVA
T4	N2	M0	IVA
Any T	N3	M0	IVA
Any T	Any N	M1	IVB

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Case 3

History and Physical

71-year-old married, Pakistani, non-Hispanic female with c/o right facial numbness, right sided vision changes, headache, and intermitted epistaxis. PCP order imaging which noted a right sinonasal mass with extension into the skull base and inferior orbit fissure. CoMorb: GERD. Parity 3, post-menopausal. No family history of cancers. Former cigarette smoker at 0.25 ppd x 10 years, quit in 1985 (3 CPY). Occupation: Homemaker.

SS# verified via patient questionnaire completed by patient.

Insurance: Humana Medicare Replacement.

Place of Birth: Pakistan.

PE: Neck -- fullness noted in right cervical lymph nodes. Examination limited to severe pain.

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Case 3

Imaging:

1/15/25 (Facility D) CT Head, Neck, Chest, Abdomen, and Pelvis: Hyperdense middle cranial fossa tumor arising from the sphenoid sinus with erosion of the middle cranial fossa plate as well as the clivus. Mass effect on bilateral temporal lobes as well as the elevation of the tentorium there is effacement of the left right lateral ventricle with 3-4 leftward midline shift at the level of septum pellucidum (series 2, image 18). There is an effacement of the chiasmatic, bilateral carotid. Extension of the tumor into the posterior fossa with effacement along the right cerebellopontine angle.

Several enlarged and necrotic multistation cervical adenopathy for example right level 2A lymph node measures 3.4 x 2.4 cm (series 1, image 200 and left level 2A (series 1, image 151) 2.5 x 2.3 cm lymph node.

Narrowing of the distal right internal carotid artery with encasement by large mass.

There is a 3 cm soft tissue metastatic lesion in the right fifth rib. Questionable metastatic lesion in the left iliac wing.

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Case 3

Imaging Cont.

1/21/25 (Facility D) MRI Face/Neck: Large T2 hypointense enhancing mass with restricted diffusion centered in the right lateral wall of the nasopharynx measuring 7cm.

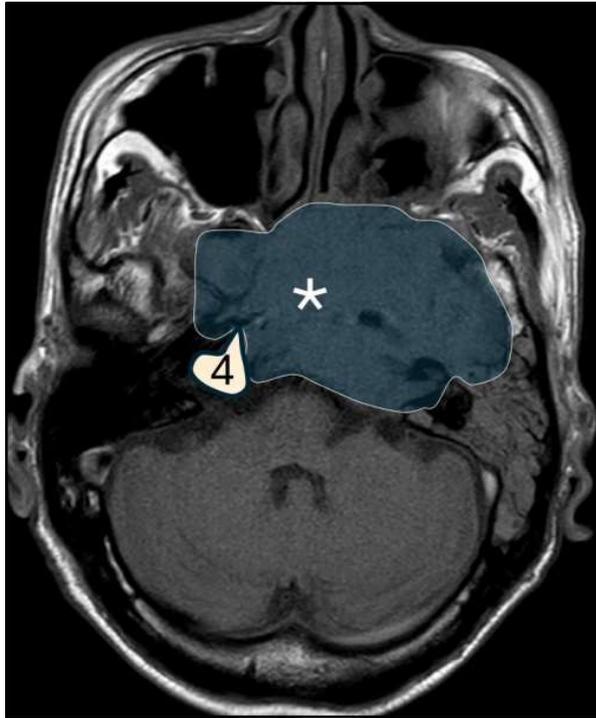
Anteriorly the mass extends into the posterior nasal cavity and posterior ethmoid air cells as well as into the right maxillary sinus and the right extraconal orbit and the right orbital apex. There is asymmetric enhancement in the right lateral rectus suspicious for disease involvement. There is also extension into the right greater than left pterygopalatine fossa. It is also tumor extension to the bilateral foramen ovale.

Inferiorly the mass extends into the oral cavity and oropharynx. Laterally the mass extends into the right parapharyngeal space, masticator space, carotid space and deep lobe of the right parotid gland.

There is destruction of the skull base with extension intracranially through the middle cranial fossa to completely encase the sella and parasellar structures including the cavernous sinuses, bilateral distal petrous and cavernous ICAs, optic chiasm, prechiasmatic optic nerves and Meckel's caves. The mass extends through the clivus into the prepontine cistern with mass effect on the pons. There is also abnormal enhancement extending into the right IAC and throughout the right facial nerve course including the geniculate ganglion and stylomastoid foramen suspicious for perineural spread. There is also extension of tumor into the right hypoglossal canal and jugular bulb.

Enlarged bilateral retropharyngeal lymph nodes. Bilateral level II adenopathy. For example, a right level II node measuring 44 mm and left level II node measures 27mm. Findings consistent with metastasis.

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CASE 3 IMAGING CONT.

1/25/25 (Facility D) Whole Body Bone Scan: Two sites of metastatic osseous lesions involving the right fifth rib measuring 2.4 cm laterally and left sternal manubrium measuring 1.9 cm, correlating with lytic lesions with soft tissue components on CT chest. Diffuse heterogenous increased radiotracer uptake of the right mandible and maxilla correlates with lytic/destructive lesions associated with the big nasopharyngeal mass.

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Case 3

Operative Report:

2/1/25 (Facility D) Nasal Endoscopy with Biopsies per Dr. Dolly Parton: Large, soft, friable mass centered in the right lateral nasopharynx wall extending into the nasal cavity obliterating the sphenoid face and involving the posterior aspect of the superior turbinate. Biopsies taken.

Pathology Report:

S25-987 (Facility D) 2/1/25 Biopsy, Right Nasopharyngeal Mass: Poorly Differentiated Squamous Cell Carcinoma, Non-Keratinizing. Comment: Immunohistochemistry results:

A3-2 P40: positive

A3-3 EBER-in-situ: positive

A3-4 EBER Positive Slide

A3-5 EBER Negative Slide

A3-6 Pan Cytokeratin AE1 AE3: positive

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Case 3

Treatment Plan:

2/1/25: Due to patient's severe pain and metastatic disease, patient was prescribed pain medication. Refills will be managed by Medical Oncology.

2/22/25: Cisplatin/and Gemcitabine day 1 and 8 Q 3 weekly for 6 cycles with Neulasta support. Per tumor board recommendations, rescan after 3 cycles and if tumor responds will add concurrent radiation therapy.

5/25/25: Radiation therapy to primary site, regional lymph nodes, and bone mets concurrent with cycles 4-6 of Cisplatin/Gemcitabine.

Let's code this case

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Case 3 Answers

EOD--Schema	Nasopharynx [V9: 2025+] (09090)
EOD--Primary Tumor	700 Brain; Cranial nerve involvement ; Hypopharynx; Infratemporal fossa/masticator space; Int...
EOD--Regional Nodes	400 Cervical lymph node(s); * Unilateral or Bilateral; * 6 cm or smaller; * Above the caudal ...
Date Regional Lymph Node Dissection	<input type="text"/> / <input type="text"/> / <input type="text"/> Date Flag:
Nodes Positive	98
Nodes Examined	0
EOD--Mets	30 Distant metastasis with metastatic lesions **less than or equal to 3 cm** ; * WITH or WIT...
Mets at DX - Bone	1 Yes
Mets at DX - Brain	0 No
Mets at DX - Liver	0 No
Mets at DX - Lung	0 No
Mets at DX - Distant LN	0 No
Mets at DX - Other	0 No
Derived Summ Stg 2018	7 <input type="button" value="Calculate"/>

62

Case 3 Answers

Grade/SSDI--Schema	Nasopharynx [V9: 2025+] (09090)
Grade Clinical	C Poorly differentiated
Grade Pathological	9 Grade cannot be assessed; Unknown
Grade Post Therapy Clin (yc)	
Grade Post Therapy Path (yp)	
Extranodal Extension Head and Neck Clinical	0 Regional lymph node(s) involved, ENE not
Extranodal Extension Head and Neck Pathological	X.9
LN Size	44.0

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Case 3 Answers

AJCC ID	Nasopharynx [V9] (9016)	
Directly Coded Summ Stg 2018	7 Distant	
Tumor Size Summary	70	
AJCC Staging Edition	09	
AJCC cTNM T	cT4	
T Suffix	Not recorded	
N	cN2	
N Suffix	Not recorded	
M	cM1a	
Clin Stage Group	4A IVA	

M Category	M Criteria
cM0	No distant metastasis
cM1	Distant metastasis
cM1a	≤ 3 metastatic lesions in one or more organs/sites
cM1b	> 3 metastatic lesions in one or more organs/sites
pM1	Microscopic confirmation of distant metastasis
pM1a	Microscopic confirmation of ≤ 3 metastatic lesions in one or more organs/sites
pM1b	Microscopic confirmation of > 3 metastatic lesions in one or more organs/sites

Any T	Any N	M1a	IVA
Any T	Any N	M1b	IVB

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Important Note

It has been noted during Spring Training that there may be a discrepancy between Extent of Disease and Version 9 AJCC Mets at Diagnosis. This issue has been addressed with the standard setters, and we will provide updates if any changes are made.

Code	Description
00	No distant metastasis Unknown if distant metastasis
10	Distant lymph node(s) with metastatic lesion(s) less than or equal to 3 cm <ul style="list-style-type: none"> › Axilla › Groin › Intraclavicular › Mediastinal (excluding superior mediastinal nodes) › Distant lymph node(s), NOS
30	Distant metastasis with metastatic lesions less than or equal to 3 cm <ul style="list-style-type: none"> › WITH or WITHOUT distant lymph nodes metastatic lesions less than or equal to 3 cm
50	Distant lymph node(s) OR distant organs <ul style="list-style-type: none"> › WITH one or more metastatic lesions greater than 3 cm
70	Distant lymph node(s) OR distant organs <ul style="list-style-type: none"> › Size of metastatic lesions unknown Distant metastasis, NOS

M Category	M Criteria
cM0	No distant metastasis
cM1	Distant metastasis
cM1a	≤ 3 metastatic lesions in one or more organs/sites
cM1b	> 3 metastatic lesions in one or more organs/sites
pM1	Microscopic confirmation of distant metastasis
pM1a	Microscopic confirmation of ≤ 3 metastatic lesions in one or more organs/sites
pM1b	Microscopic confirmation of > 3 metastatic lesions in one or more organs/sites

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AJCC Cancer Staging System

VERSION NINE

Diffuse Pleural Mesothelioma

ACS / AJCC

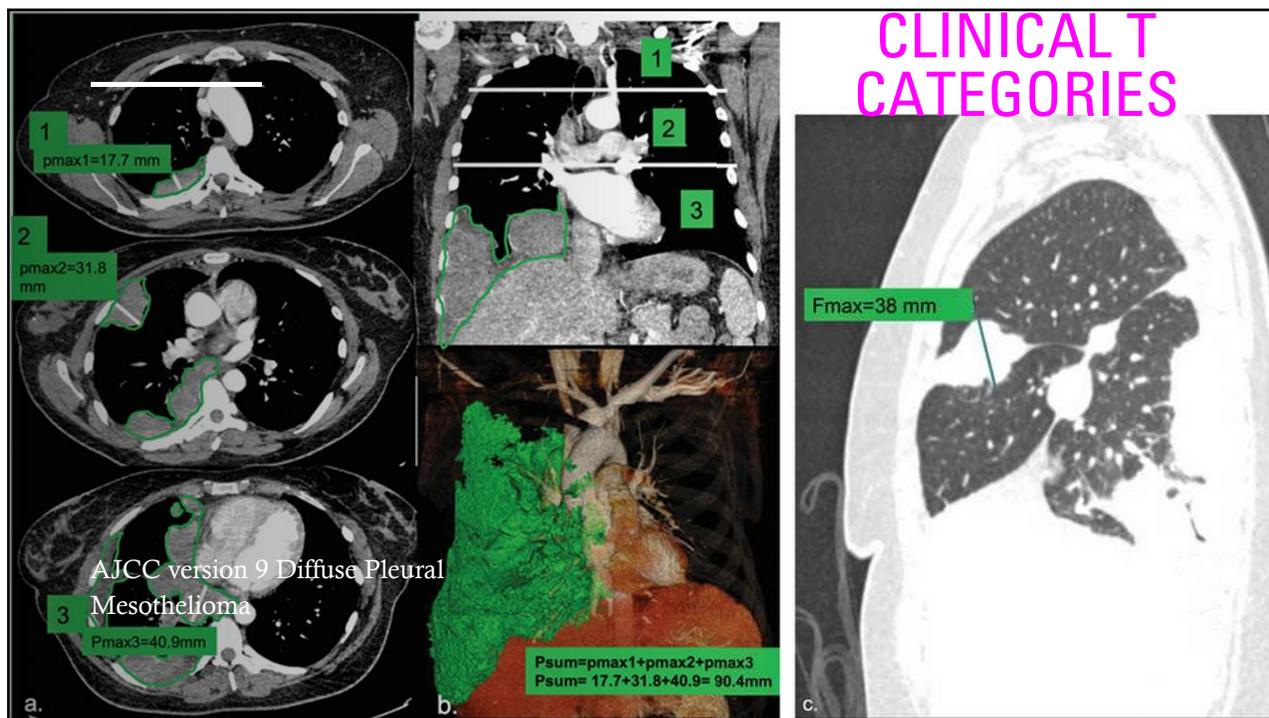
American Joint Committee on Cancer
American College of Surgeons

66

Summary of Changes: Primary Tumor

Change	Details of Change	Level of Evidence
Definition of Primary Tumor (T)	Quantitative pleural thickness measurements added to modified qualitative T criteria for definitions of clinical T1-3; modified qualitative criteria only retained for pathological T categories	I

67



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AJCC version 9 Diffuse Pleural Mesothelioma

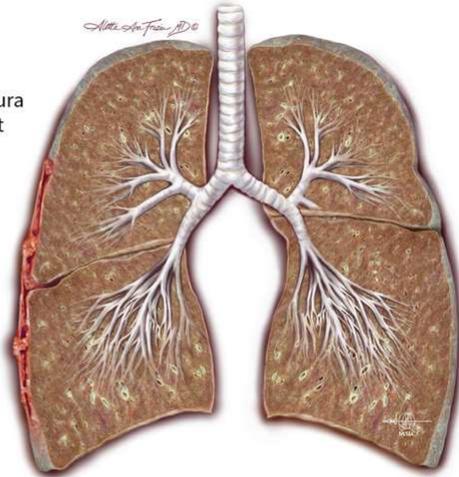
T1

CLINICAL T (cT)

cT1: Tumor limited to the ipsilateral pleura with $P_{sum}^a \leq 12\text{mm}$ with no involvement of the fissure ($F_{max}^b \leq 5\text{mm}$)

PATHOLOGICAL T (pT)

pT1: Tumor limited to the ipsilateral pleura with no involvement of the fissure



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AJCC version 9 Diffuse Pleural Mesothelioma

T2

cT2: Tumor involving the ipsilateral pleura with $P_{sum}^a \leq 12\text{mm}$ and with any of the following:

- involvement of the fissure ($F_{max}^b > 5\text{mm}$)
- mediastinal fat invasion
- solitary area of chest wall soft tissue invasion;

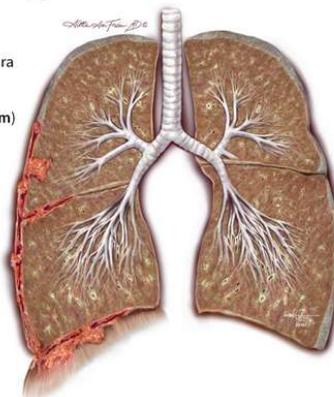
or

Tumor involving the ipsilateral pleura with $P_{sum}^a > 12\text{mm}$ but $\leq 30\text{mm}$, with or without:

- involvement of the fissure ($F_{max}^b > 5\text{mm}$)
- mediastinal fat invasion
- solitary area of chest wall soft tissue invasion

pT2: Tumor involving the ipsilateral pleura and with any of the following:

- involvement of the fissure
- ipsilateral lung parenchyma invasion
- diaphragm (non-transmural) invasion



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AJCC version 9 Diffuse Pleural Mesothelioma

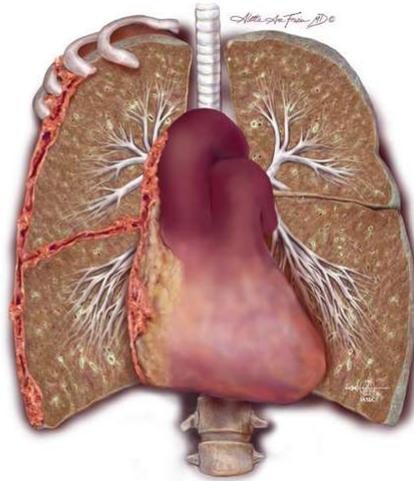
T3

cT3: Tumor involving the ipsilateral pleura with Psum^a > 30 mm; with or without:

- involvement of the fissure (Fmax^b >5mm)
- mediastinal fat invasion
- solitary area of chest wall soft tissue invasion

pT3: Tumor limited to the ipsilateral pleura (with or without fissure involvement) and with invasion of any of the following:

- mediastinal fat
- surface of pericardium
- endothoracic fascia
- solitary area of chest wall soft tissue



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AJCC version 9 Diffuse Pleural Mesothelioma

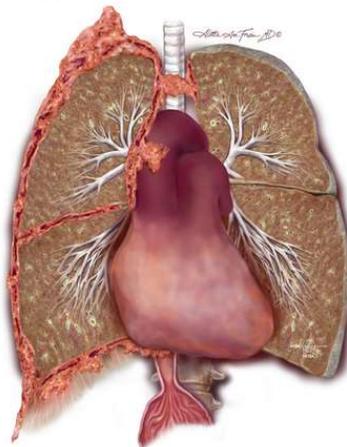
T4

cT4: Tumor with invasion of any of the following (any Psum^a):

- chest wall bony invasion (rib)
- mediastinal organs (heart, spine, esophagus, trachea, great vessels)
- diffuse chest wall invasion
- direct tumor extension through the diaphragm or pericardium
- direct extension to the contralateral pleura
- presence of malignant pericardial effusion

pT4: Tumor with invasion of any of the following:

- chest wall bony invasion (rib)
- mediastinal organs (heart, spine, esophagus, trachea, great vessels)
- diffuse chest wall invasion
- transmural invasion of the diaphragm or pericardium
- direct extension to the contralateral pleura
- presence of malignant pericardial effusion



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AJCC version 9 Diffuse Pleural Mesothelioma

Clinical T categories



Note: $P_{sum} = p_{max1} + p_{max2} + p_{max3}$ (sum of 3 measurements of maximal pleural thickness measured on axial images along the chest wall or mediastinum in each of the three divisions of the chest – upper, middle and lower divided by two lines, one at the top of the aortic arch and the second drawn at the top of the left atrium)

Note:
 F_{max} = maximal thickness of pleural tumor along the fissures measured on sagittal images

T Category	T Criteria
TX	Primary tumor cannot be assessed
T0	No evidence of primary tumor
T1	Tumor limited to the ipsilateral parietal pleura with $P_{sum} \leq 12$ mm and no involvement of the fissure ($F_{max} \leq 5$ mm)
T2	Tumor involving the ipsilateral pleura with $P_{sum} \leq 12$ mm, and with any of the following: <ul style="list-style-type: none"> involvement of the fissure ($F_{max} > 5$ mm) mediastinal fat invasion solitary area of chest wall soft tissue invasion OR Tumor involving the ipsilateral pleura with $P_{sum} > 12$ mm but ≤ 30 mm, with or without: <ul style="list-style-type: none"> involvement of the fissure ($F_{max} > 5$ mm) mediastinal fat invasion solitary area of chest wall soft tissue invasion
T3	Tumor involving the ipsilateral pleura with $P_{sum} > 30$ mm, with or without: <ul style="list-style-type: none"> involvement of the fissure ($F_{max} > 5$ mm) mediastinal fat invasion solitary area of chest wall soft tissue invasion
T4	Tumor with invasion of any of the following (any P_{sum}): <ul style="list-style-type: none"> chest wall bony invasion (rib) mediastinal organs (heart, spine, esophagus, trachea, great vessels) diffuse chest wall invasion direct tumor extension through the diaphragm or pericardium direct extension to the contralateral pleura presence of malignant pericardial effusion

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AJCC version 9 Diffuse Pleural Mesothelioma

Pathologic T categories



T Category	T Criteria
TX	Primary tumor cannot be assessed
T0	No evidence of primary tumor
T1	Tumor limited to the ipsilateral parietal pleura with no involvement of the fissure
T2	Tumor involving the ipsilateral pleura and with any of the following: <ul style="list-style-type: none"> involvement of the fissure ipsilateral lung parenchyma invasion diaphragm (non-transmural) invasion
T3	Tumor limited to the ipsilateral pleura (with or without fissure involvement) and with invasion of any of the following: <ul style="list-style-type: none"> mediastinal fat surface of pericardium endothoracic fascia solitary area of chest wall soft tissue
T4	Tumor with invasion of any of the following: <ul style="list-style-type: none"> chest wall bony invasion (rib) mediastinal organs (heart, spine, esophagus, trachea, great vessels) diffuse chest wall invasion transmural invasion of the diaphragm or pericardium direct extension to the contralateral pleura presence of malignant pericardial effusion

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AJCC version 9 Diffuse Pleural Mesothelioma

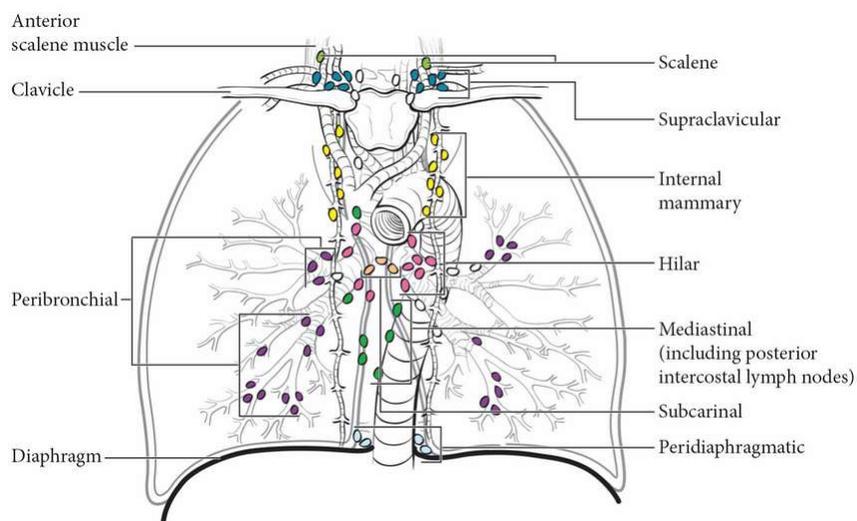
Summary of Changes: Regional Lymph Nodes

N Category	N Criteria
NX	Regional lymph nodes cannot be assessed
N0	No tumor involvement of regional lymph node(s)
N1	Tumor involvement of ipsilateral bronchopulmonary, hilar, or mediastinal (including the internal mammary, peridiaphragmatic, pericardial fat pad, or intercostal lymph nodes) regional lymph nodes
N2	Tumor involvement of contralateral mediastinal, ipsilateral or contralateral supraclavicular lymph nodes

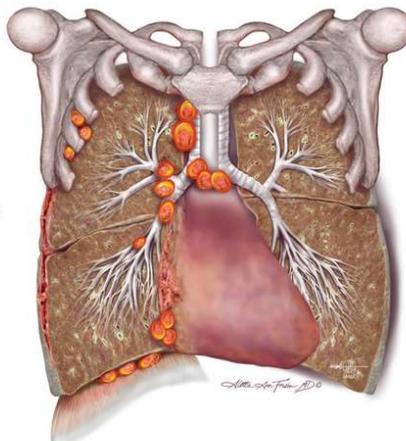
75

AJCC version 9 Diffuse Pleural Mesothelioma

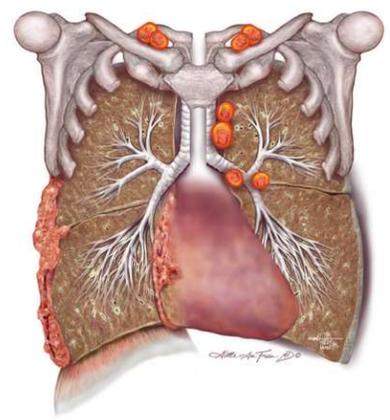
Regional Lymph Nodes



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<p>AJCC version 9 Diffuse Pleural Mesothelioma</p>	<p>Regional Lymph Nodes</p>
<p>N1</p>	
<p>Metastases to ipsilateral intrathoracic lymph nodes (includes ipsilateral bronchopulmonary, hilar, subcarinal, paratracheal, aortopulmonary, para-esophageal, peridiaphragmatic, pericardial fat pad, intercostal, and internal mammary nodes)</p>	

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<p>AJCC version 9 Diffuse Pleural Mesothelioma</p>	<p>Regional Lymph Nodes</p>
<p>N2</p>	
<p>Metastases in the contralateral mediastinal, ipsilateral or contralateral supraclavicular lymph nodes</p>	

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Summary of Changes: Mets at Diagnosis

M Category	M Criteria
cM0	No distant metastasis
cM1	Distant metastasis
pM1	Microscopic confirmation of distant metastasis

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Summary of Changes: Stage Group

Change	Details of Change	Level of Evidence
AJCC Prognostic Stage Groups	Revisions of stage groups prompted by revisions in clinical T categories (stages IA and IB merged into stage I that includes only T1N0M0; T1N1M0 and T2N0M0 are classified as stage II; T1N2M0, T2N1-2M0 and T3N0-2M0 are now classified as stage IIIA)	I

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AJCC version 9 Diffuse Pleural Mesothelioma

Summary of Changes: Stage Group

Version
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When T is...	And N is...	And M is...	Then the stage group is...
T1	N0	M0	I
T2	N0	M0	II
T1	N1	M0	II
T2	N1	M0	IIIA
T3	N0-N1	M0	IIIA
T1-T3	N2	M0	IIIA
T4	Any N	M0	IIIB
Any T	Any N	M1	IV

When T is...	And N is...	And M is...	Then the stage group is...
Tis	N0	M0	0
T1-T2	N0	M0	IA
T0-T2	N1	M0	IB
T0-T2	N2	M0	II
T3	N0-N2	M0	II
T4	Any N	M0	III
Any T	N3	M0	III
Any T	Any N	M1a	IVA
Any T	Any N	M1b	IVB

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Edition

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AJCC version 9 Diffuse Pleural Mesothelioma Histology Code: 9052 Epithelioid Mesothelioma

Summary of Changes: Grade

Grading of Epithelioid Mesothelioma

Nuclear Atypia Score		+	Mitotic Count Score	
1	Mild		1	Low (≤ 1 mitosis/2 mm ²)
2	Moderate		2	Intermediate (2-4 mitoses/2 mm ²)
3	Severe	3	High (≥ 5 mitoses/2 mm ²)	

↓

Sum	
2 or 3	Nuclear grade I
4 or 5	Nuclear grade II
6	Nuclear grade III

+

Necrosis
Present
Absent

G	G Definition
LG (Low Grade)	Nuclear grade I with or without necrosis
	OR
HG (High Grade)	Nuclear grade II without necrosis
	OR
	Nuclear grade II with necrosis
HG (High Grade)	OR
	Nuclear grade III with or without necrosis

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*Content current as of March 25, 2025

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AJCC Cancer
Staging System

VERSION NINE

Thymus




American Joint Committee on Cancer
American College of Surgeons

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Cases diagnosed in 2025 forward:

Carcinosarcoma (8980) of the
Thymus (C37.9) has been moved
from the 8th Edition Soft Tissue
Abdomen & Thoracic and added to
Version 9 Thymus.

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AJCC version 9 Thymus **Summary of Changes: Primary Tumor**

Change	Details of Change	Level of Evidence
Definition of Primary Tumor (T)	T1 is now subdivided based on tumor size, previously subdivided by involvement of the mediastinal pleura	II
Definition of Primary Tumor (T)	T2 added direct invasion of the lung or the phrenic nerve	II
Definition of Primary Tumor (T)	T3 removed direct invasion of the lung and phrenic nerve	II

8th Edition

T Category	T Criteria
T1a	Tumor ≤ 5 cm in greatest dimension with either: <ul style="list-style-type: none"> Limited to the thymus with or without encapsulation Directly invades into the mediastinal fat only Directly invades the mediastinal pleura but does not involve any other mediastinal structure
T1b	Tumor > 5 cm in greatest dimension with either: <ul style="list-style-type: none"> Limited to the thymus with or without encapsulation Directly invades into the mediastinal fat only Directly invades the mediastinal pleura but does not involve any other mediastinal structure
T2	Tumor with direct invasion of the pericardium (either partial or full thickness), or the lung, or the phrenic nerve
T3	Tumor with direct invasion into any of the following: brachiocephalic vein, superior vena cava, chest wall, or extrapericardial pulmonary artery or veins
T4	Tumor with direct invasion into any of the following: aorta (ascending, arch, or descending), arch vessels, intrapericardial pulmonary artery or veins, myocardium, trachea, esophagus

T Category	T Description
TX	Primary tumor cannot be assessed
T0	No evidence of primary tumor
T1	Tumor encapsulated or extending into the mediastinal fat; may involve the mediastinal pleura
T1a	Tumor with no mediastinal pleura involvement
T1b	Tumor with direct invasion of mediastinal pleura
T2	Tumor with direct invasion of the pericardium (either partial or full thickness)
T3	Tumor with direct invasion into any of the following: lung, brachiocephalic vein, superior vena cava, phrenic nerve, chest wall, or extrapericardial pulmonary artery or veins
T4	Tumor with invasion into any of the following: aorta (ascending, arch, or descending), arch vessels, intrapericardial pulmonary artery, myocardium, trachea, esophagus



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AJCC version 9 Thymus

Summary of Changes: Regional Lymph Nodes

N Category	N Criteria
NX	Regional lymph nodes cannot be assessed
N0	No tumor involvement of regional lymph node(s)
N1	Tumor involvement of anterior (perithymic) lymph nodes
N2	Tumor involvement of deep intrathoracic or cervical lymph nodes (e.g., paratracheal, subcarinal, aortopulmonary window, hilar, jugular, and/or supraclavicular nodes)

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AJCC version 9 Thymus

Summary of Changes: Mets at Diagnosis

M Category	M Criteria
cM0	No distant metastasis
cM1	Distant metastasis
cM1a	Separate pleural or pericardial nodule(s)
cM1b	Pulmonary intraparenchymal nodule or other distant metastasis
pM1	Microscopic confirmation of distant metastasis
pM1a	Microscopic confirmation of separate pleural or pericardial nodule(s)
pM1b	Microscopic confirmation of pulmonary intraparenchymal nodule or other distant metastasis

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AJCC version 9 Thymus

Summary of Changes: Stage Group

When T is...	And N is...	And M is...	Then the stage group is...
T1a-T1b	N0	M0	I
T2	N0	M0	II
T3	N0	M0	IIIA
T4	N0	M0	IIIB
Any T	N1	M0	IVA
Any T	N0-N1	M1a	IVA
Any T	N2	M0-M1a	IVB
Any T	Any N	M1b	IVB

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WHEN WILL THE V25 CONVERSION BE RELEASED FOR CPDMS?



When can we abstract 2025 cases?!?!

CPDMS Scheduled Downtime on April 8, 2025, starting at 5pm EST.

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EDITS!!!



- Regional Coordinator
 - CPDMS IT Team
- Email: cpdmsnetsupport@uky.edu
Phone: (859) 218-2222



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KCR IT TEAM

CANCER PATIENT DATA MANAGEMENT SYSTEM .net
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 UK HEALTHCARE

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Support Information

Support Hours:
 Monday-Friday, 7 AM to 5 PM Eastern Time
 (859) 218-2222
cpdmsnetsupport@uky.edu

CPOMS receives updates every other Tuesday at 5PM Eastern Time (unless that Tuesday falls at the end of the month or is a holiday). During the update period the software will be unavailable for use for a brief period.

[Update Schedule](#)
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THANK YOU!

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*Content current as of March 25, 2025

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