

Collecting Cancer Data: Lung

NAACCR 2015-2016 Webinar Series

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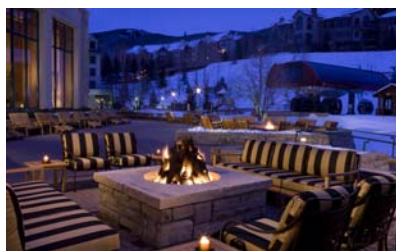


●●● Q&A

- Please submit all questions concerning webinar content through the Q&A panel.
- Reminder:
 - If you have participants watching this webinar at your site, please collect their names and emails.
 - We will be distributing a Q&A document in about one week. This document will fully answer questions asked during the webinar and will contain any corrections that we may discover after the webinar.



●●● Fabulous Prizes



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●●● Agenda

- Coding Moment
- Overview
- MPH Rules
- Epi Moment
- Break – Quiz 1
- Staging
- Break – Quiz 2
- Case Scenarios

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Coding Moment

Mets at Diagnosis - BBDLLO

●●● Mets at Diagnosis BBDLLO

- Mets at Diagnosis – Brain
- Mets at Diagnosis – Bone
- Mets at Diagnosis – Distant Lymph Nodes
- Mets at Diagnosis – Liver
- Mets at Diagnosis – Lung
- Mets at Diagnosis - Other

●●● Coding Moment – Mets at Diagnosis BBDLLO

- Involvement may be single or multiple
- Involvement may be clinical or pathologic
- Code even if there was preoperative systemic therapy
- Code for all solid tumors, Kaposi sarcoma, Unknown Primaries and Other/ill-defined Primaries
- Code for Lymphomas (9590-9699, 9702-9727, 9735, 9737-9738, 9811-9818, 9823, 9827, 9837) (All sites)



●●● Take Notice: Mets at Diagnosis - Bone

- Do **NOT** code bone marrow involvement in this field



●●● Take Notice: Mets at Diagnosis - Brain

- Do NOT Code involvement of spinal cord or other parts of the CNS in this field



●●● Take Notice: Mets at Diagnosis - Lung

- Do NOT code pleural or pleural fluid involvement in this field
- Do not assign code 1 for a lung primary with multifocal involvement of the same lung
- Use of Code 1 – indicates lung is primary site and there are mets in the contralateral lung.



●●● Take Notice: Mets at Diagnosis– Distant Lymph Nodes

- Use AJCC TNM to determine regional vs distant
- Assign Code 0 for unknown primaries, unless lymph nodes are stated to be distant lymph nodes
- Placental lymph nodes for placenta primaries are distant lymph nodes (M1) and are recorded in this field
- Do not code for regional lymph node involvement
- Code 0 for all lymphomas.
 - Lymphomas (9590-9699, 9702-9727, 9735, 9737-9738, 9811-9818, 9823, 9827, 9837 (All sites)



●●● Take Notice: Mets at Dx – Other

- Code 1 includes bone marrow involvement for lymphomas
 - Does not include lymphomas or lymphoma/leukemias where primary site is C421
- Code 2 when the patient has carcinomatosis



●●● Coding Moment – Mets at Diagnosis BBDLLO

- Code 0
 - None, no bone metastases
- Code 1
 - Yes, distant bone metastases
- Code 2 (Mets at Dx – Other)
 - Generalized metastases such as carcinomatosis
- Code 8
 - Not applicable
- Code 9
 - Unknown is involved metastatic site
 - Not documented in patient record

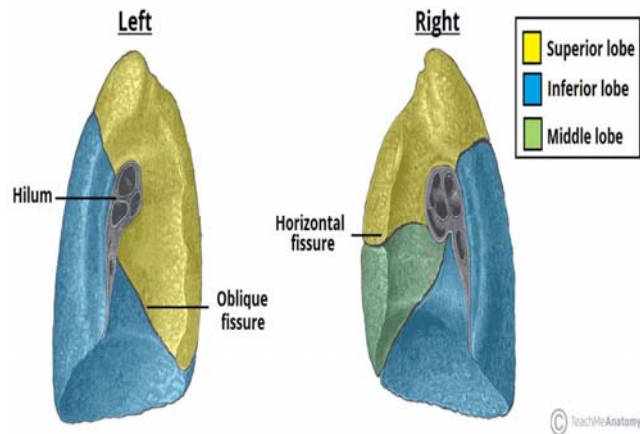


Overview

Lung

●●● Anatomy

- Upper Lobe (C34.1)
- Middle Lobe (C34.2)
- Lower Lobe (C34.3)
- Hilum (C34.0)
- Lingula (C34.1)

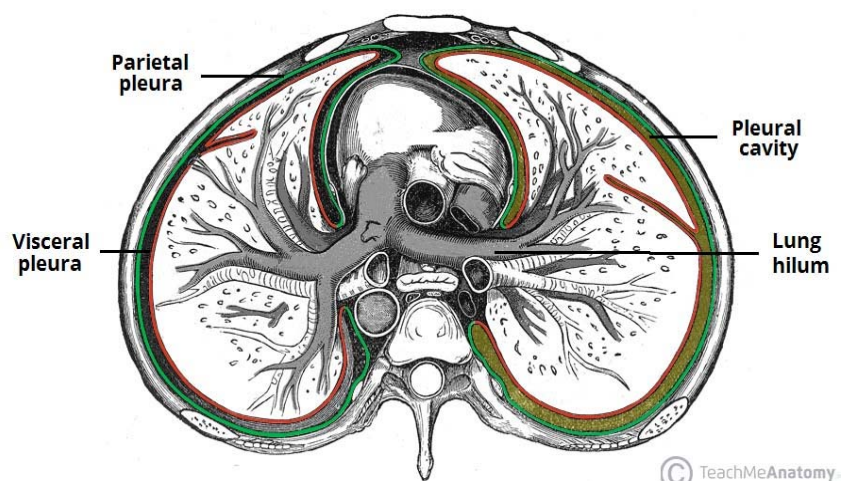


<http://teachmeanatomy.info/wp-content/uploads/Lobes-and-Fissures-of-the-Left-and-Right-Lungs-1024x438.jpg>

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- Pleura
 - Visceral
 - Parietal
- Pleural Cavity



• <http://teachmeanatomy.info/wp-content/uploads/The-Parietal-and-Visceral-Pleura-and-Pleural-Cavity.jpg>

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●●● Regional Lymph Nodes

- Pulmonary
- Interlobar
- Peribronchial
- Segmental
- Hilar
- Mediastinal
- Pretracheal
- Paratracheal
- Carinal
- Paraesophageal



●●● Common Distant Metastatic Sites

- Other lung
- Adrenal gland
- Bones
- Brain
- Liver



●●● Histologies

- Non-Small Cell
 - Adenocarcinoma
 - Squamous Cell
 - Large Cell Carcinoma
- Small Cell
- Carcinoid



●●● What is “Lepidic” Growth Pattern

- "Lepidic" is a growth pattern meaning that tumor cells are growing along the alveolar septa. It is characteristic of bronchioloalveolar carcinoma (BAC), but not diagnostic of it. The diagnosis of BAC also requires no stromal, vascular, or pleural invasion. Lepidic growth may be seen in other adenocarcinomas, including metastases to lung from other sites. It is not considered a type/subtype of adenocarcinoma. For lepidic lung neoplasms, code the histology indicated, for example BAC.

<https://seer.cancer.gov/seerinqury/index.php?page=view&id=20130072&type=q>



Multiple Primary and Histology Rules

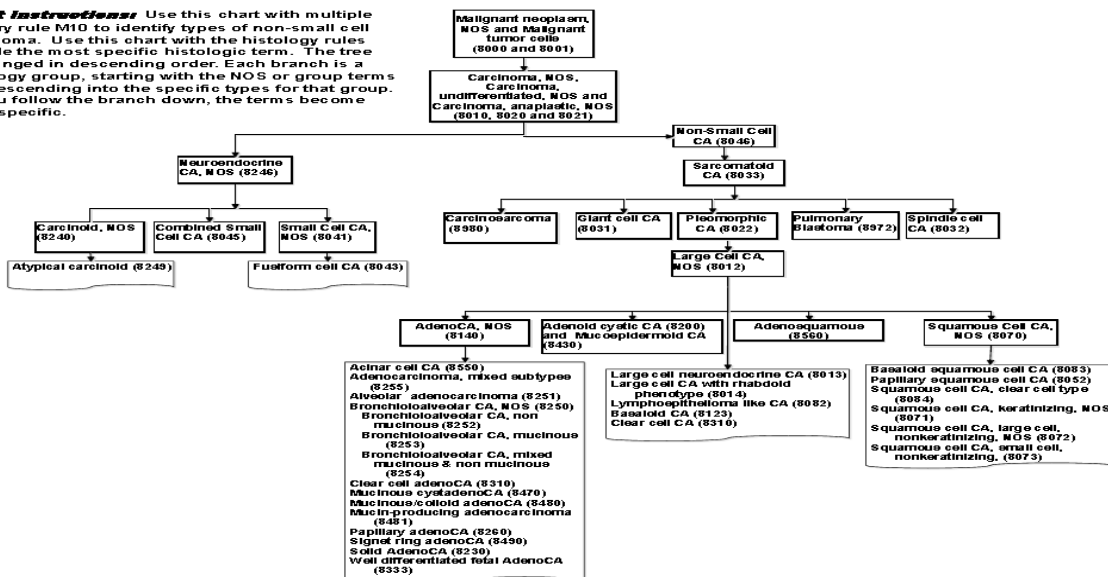
Lung Equivalent Terms, Definitions, Charts, Tables and Illustrations C340- C349

(Excludes lymphoma and leukemia M9590-9989 and Kaposi sarcoma M9140)

Chart 1 – Lung Histology Groups and Specific Types

Note: This chart is based on the *WHO Classification of Tumors* for tumors of the lung. The chart is not a complete listing of histologies that may occur in the lung.

Chart Instructions: Use this chart with multiple primary rule M10 to identify types of non-small cell carcinoma. Use this chart with the histology rules to code the most specific histologic term. The tree is arranged in descending order. Each branch is a histology group, starting with the NOS or group terms and descending into the specific types for that group. As you follow the branch down, the terms become more specific.



**Lung Equivalent Terms, Definitions, Charts, Tables and Illustrations
C340-C349
(Excludes lymphoma and leukemia M9590-9989 and Kaposi sarcoma M9140)**

Table 1 –Combination/Mixed Codes for Lung Histologies

Table Instructions: Use this table to select combination/mixed histology codes. Compare the terms in the diagnosis to the terms in columns 1 and 2. If the terms match, abstract the case using the ICD-O-3 histology code in column 4. Use the combination/mixed codes listed in this table only when the histologies in the tumor match the histologies listed below. Use the combination/mixed codes for a **single tumor** when all histologies are present in a single tumor.

Note: This table is not a complete listing of histologies that may occur in the lung.

Column 1: Required Terms	Column 2: Additional Required Terms	Column 3: ICD-O-3 Term	Column 4: ICD-O-3 Code
Giant cell carcinoma AND spindle cell carcinoma		Giant cell and spindle cell carcinoma	8030
Small cell carcinoma AND one of the histologies in Column 2 <i>Note: Diagnosis must be small cell carcinoma (NOS), not a subtype of small cell</i>	Adenocarcinoma Large cell carcinoma Squamous cell carcinoma	Combined small cell carcinoma Mixed small cell carcinoma	8045
Squamous cell carcinoma* AND large cell nonkeratinizing		Squamous cell carcinoma, large cell, nonkeratinizing	8072
Squamous cell carcinoma AND small cell nonkeratinizing		Squamous cell carcinoma, small cell, nonkeratinizing	8073
Squamous cell carcinoma* AND one of the histologies in Column 2	Spindle cell carcinoma Sarcomatoid	Squamous cell carcinoma, spindle cell Squamous cell carcinoma, sarcomatoid	8074
A combination of at least two of the histologies in Column 2***	A cinar Bronchioloalveolar carcinoma Bronchioloalveolar carcinoma non mucinous (Clara cell/type II pneumocyte) Bronchioloalveolar carcinoma mucinous (goblet cell) Bronchioloalveolar carcinoma mixed mucinous and non-mucinous Clear cell adenocarcinoma Papillary adenocarcinoma Solid adenocarcinoma Well-differentiated fetal adenocarcinoma	Adenocarcinoma with mixed subtypes***	8255***

Lung Terms and Definitions

**Lung Equivalent Terms, Definitions, Charts, Tables and Illustrations
C340-C349
(Excludes lymphoma and leukemia M9590-9989 and Kaposi sarcoma M9140)**

Column 1: Required Terms	Column 2: Additional Required Terms	Column 3: ICD-O-3 Term	Column 4: ICD-O-3 Code
Adenocarcinoma AND squamous cell carcinoma <i>Note: Diagnosis must be adenocarcinoma (NOS), not a subtype of adenocarcinoma</i>		Adenosquamous carcinoma	8560
Epithelial carcinoma AND myoepithelial carcinoma		Epithelial-myoepithelial carcinoma	8562

* Squamous cell carcinoma and epidermoid carcinoma are synonyms.

*** **DO NOT USE** code **8255** for adenocarcinoma combined with mucinous subtypes such as mucinous “colloid” adenocarcinoma (8480) mucinous cystadenocarcinoma (8470) or signet ring adenocarcinoma (8490).

●●● Multiple Primary Rules

M1

- When it is not possible to determine if there is a **single** tumor or **multiple** tumors, opt for a single tumor and abstract as a single primary.

M2

- A **single tumor** is always a single primary.



●●● Multiple Primary Rules

M3

- Tumors in sites with ICD-O-3 **topography** codes that are **different** at the second (Cxxx) and/or third character (Cxxx) are multiple primaries.

M4

- At least one tumor that is **non-small cell** carcinoma (8046) **and** another tumor that is **small cell** carcinoma (8041-8045) are multiple primaries.

M5

- A tumor that is **adenocarcinoma** with **mixed subtypes** (8255) **and** another that is **bronchioloalveolar** (8250-8254) are multiple primaries.



●●● Multiple Primary Rules

M6

- A **single** tumor in **each lung** is multiple primaries.

M7

- **Multiple** tumors in **both lungs** with ICD-O-3 histology codes that are different at the first (xxxx), second (xxxx) or third (xxxx) number are multiple primaries.

M8

- Tumors diagnosed **more than three (3) years** apart are multiple primaries.



●●● Multiple Primary Rules

M9

- An **invasive** tumor **following** an **in situ** tumor more than 60 days after diagnosis is a multiple primary.

M10

- Tumors with **non-small cell carcinoma, NOS (8046)** and a more **specific** non-small cell carcinoma **type** (Chart 1) are a single primary.



●●● Multiple Primary Rules

M11

- Tumors with ICD-O-3 **histology** codes that are **different** at the first (xxxx), second (xxxx) or third (xxxx) number are multiple primaries.

M12

- Tumors that **do not meet any** of the above **criteria** are a single primary.



●●● Histology Rules

H5 & H12

- Code the **most specific** term using Chart 1 **when** there are multiple histologies within the same branch. Examples of histologies within the same branch are:
 - Cancer/malignant neoplasm, NOS (8000) and a more specific histology or
 - Carcinoma, NOS (8010) and a more specific carcinoma or
 - Adenocarcinoma, NOS (8140) and a more specific adenocarcinoma or
 - Squamous cell carcinoma, NOS (8070) and a more specific squamous cell carcinoma or
 - Sarcoma, NOS (8800) and a more specific sarcoma



●●● Histology Rules

- **Rule H6** Code the appropriate combination/mixed code (Table 1) when there are **multiple specific histologies** or when there is a non-specific **with multiple specific histologies**



●●● Pop Quiz #1

- Does lung MP/H Rule M6 apply to synchronous tumors only, metachronous tumors only, or both?
- How many primaries should be reported when a patient has a history of RLL adenocarcinoma diagnosed on 10/8/2009 followed by diagnoses of LUL adenocarcinoma on 10/5/2012 and a RUL adenocarcinoma on 3/26/2014?

<https://seer.cancer.gov/seerinqury/index.php?page=view&id=20140062&type=q>



●●● Pop Quiz #1

- Assuming each of the three diagnoses is a single tumor and there are no other tumors in either lung, abstract two primaries: 1 in the RLL diagnosed on 10/8/2009 and 1 in the LUL diagnosed on 10/5/2012. Do not abstract the 3/26/2014 diagnosis as a new primary.
- Rule M6 applies to the 2009 and 2012 diagnoses. Rule M12 applies to the 2012 and 2014 diagnoses. Do not compare the 2014 diagnosis to the 2009 diagnosis. Always compare the latest diagnosis to the most recent previous diagnosis in cases like this.

<https://seer.cancer.gov/seerinqury/index.php?page=view&id=20140062&type=q>



Epi Moment

Lung

Theme Song:

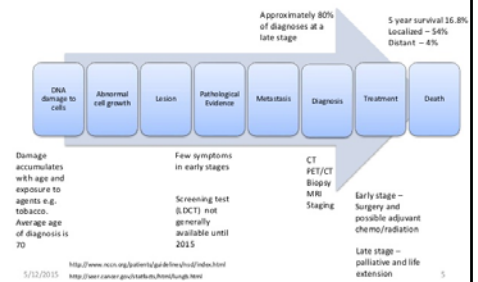
Smokin' in the Boys' Room



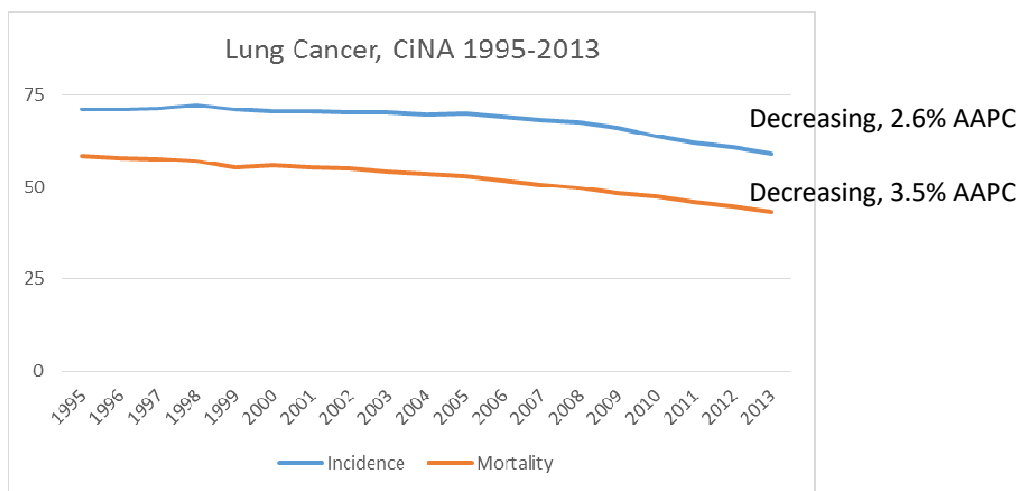
••• Epidemiology of lung cancer

- Analysis groups
 - Lung & Bronchus, tobacco-related
 - Trachea & pleura (mesothelioma) separate
- Leading cause of cancer related death worldwide
- 2nd most common cancer in North America
 - Most common worldwide (men)
 - Highest in more developed regions
- 100 years ago rare disease; now global problem
 - 1929 link with tobacco identified in Germany; 1950s causal relationship with smoking suspected; established 1962/1964 US
- 2 main histologies
 1. small cell lung cancer (SCLC)
 - SCLC most aggressive; strongly associated with smoking
 2. 2 types of non-small cell lung cancer (NSCLC—85%)
 - squamous (strongly associated with smoking)
 - adenocarcinoma (seen in non-smokers & low tar smokers; rates rising)

Natural History of Lung Cancer

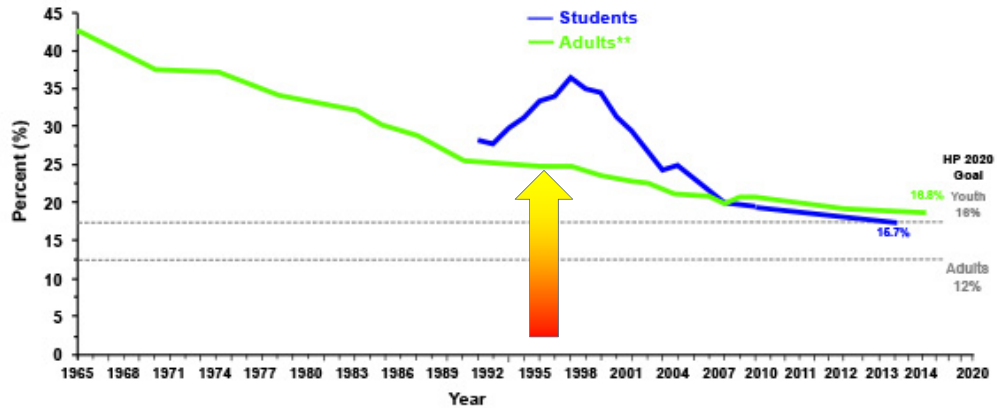


••• Lung cancer trends, 1995-2013



Smoking trends

Trends in Current Cigarette Smoking by High School Students* and Adults** — United States, 1965-2014

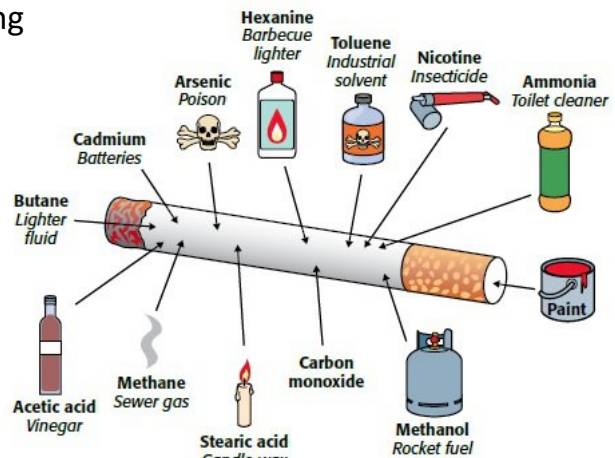
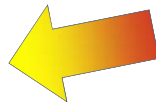


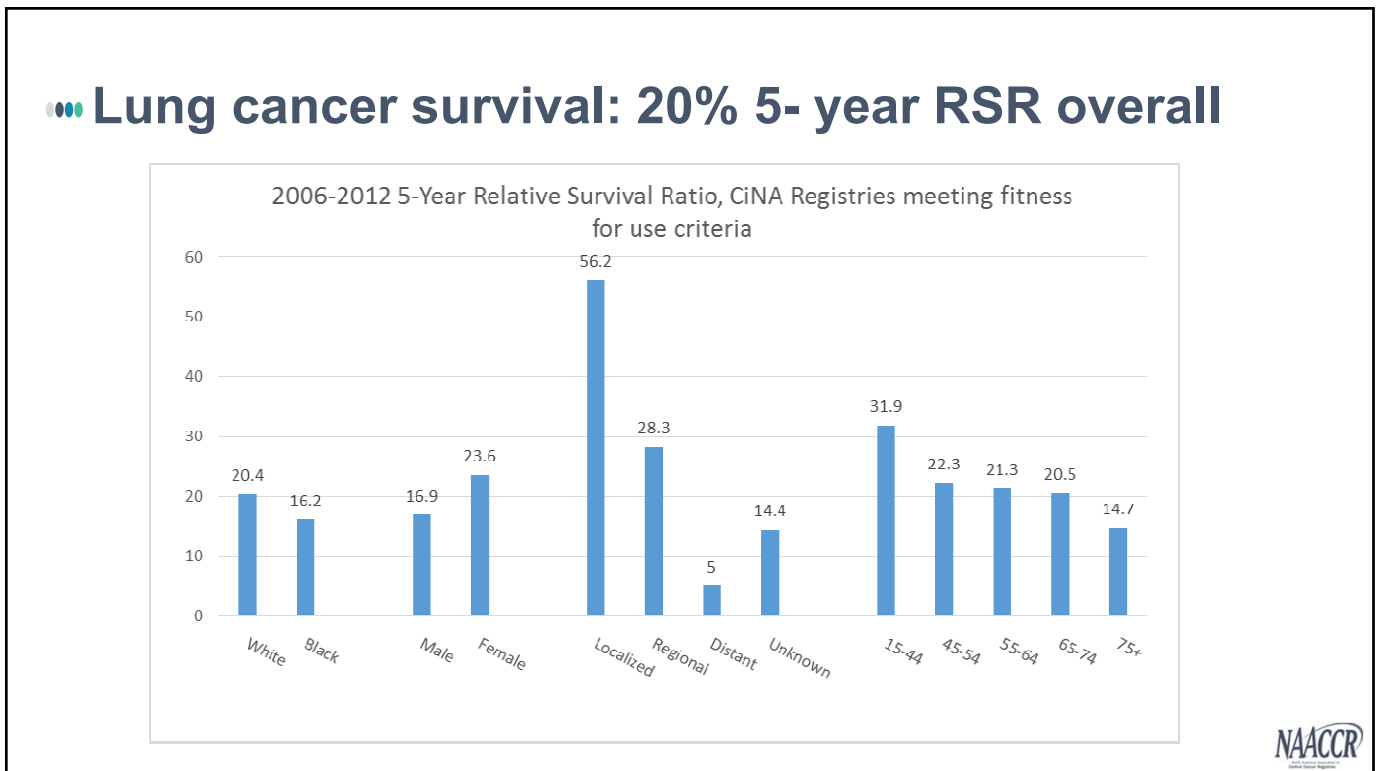
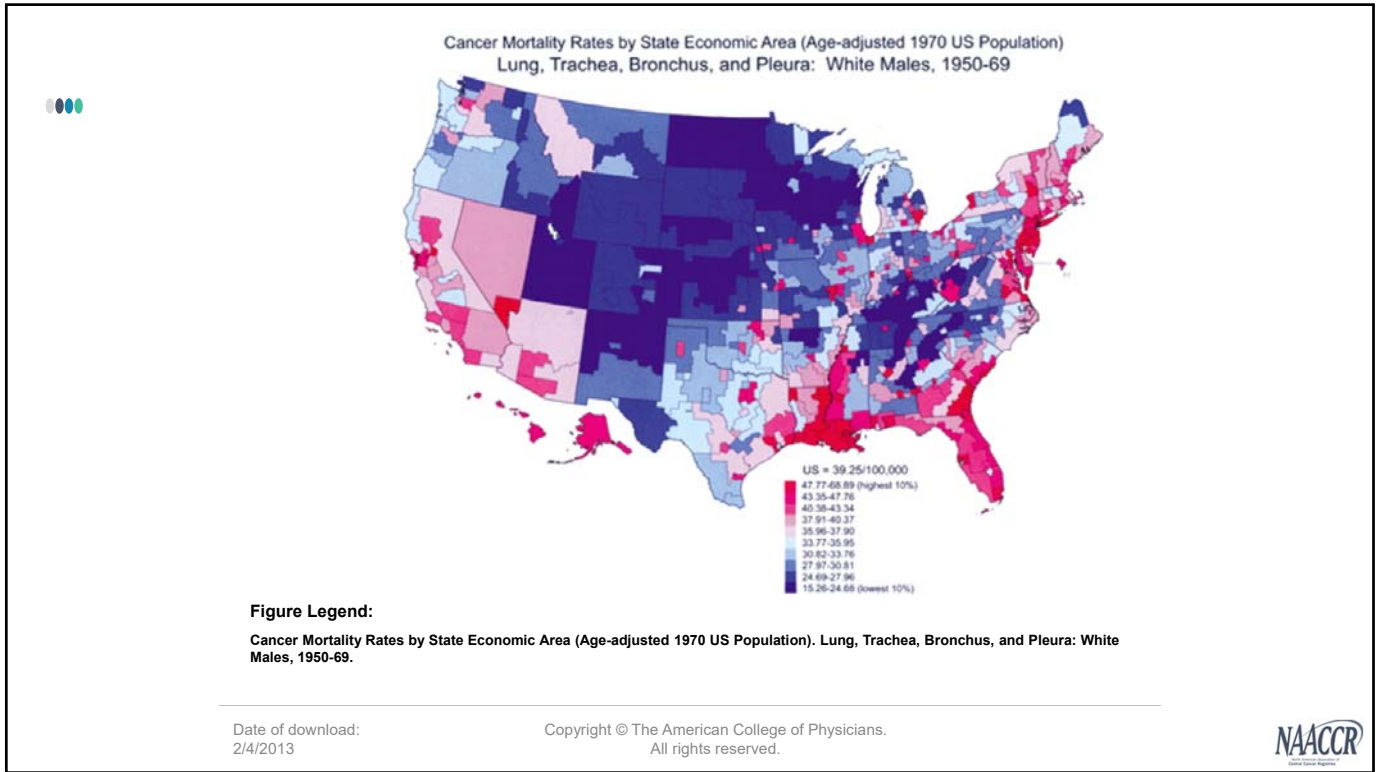
*Percentage of high school students who smoked cigarettes on 1 or more of the 30 days preceding the survey (Youth Risk Behavior Survey, 1991-2013).
 **Percentage of adults who are current cigarette smokers (National Health Interview Survey, 1965-2014).



Risk factors for lung cancer

- Causal:
 - Active cigarette smoking
 - Passive (secondhand) cigarette smoking
 - Pipe & cigar smoking
- Occupational exposures
 - Asbestos, nickel, chromium, arsenic
- Radiation exposure
 - Radon gas
- Indoor & Outdoor air pollution
- Synergistic with smoking
- Risk Factor: e-cigarettes
- Risk Factor: marijuana
- Possibly protective: healthy diet

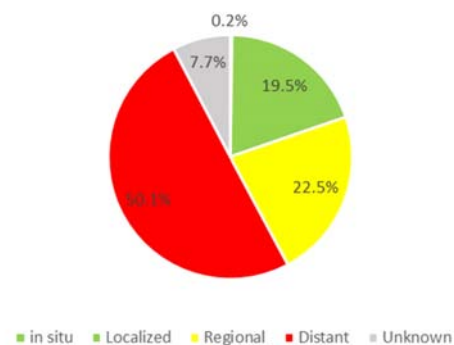




••• Lung cancer screening

- No population based screening
 - <1% diagnosed at *in situ*
 - Accidental discovery; tests for other conditions
- Delay in diagnosis
 - Early stages asymptomatic
 - Symptoms often mistaken for other health issues
- National Lung Screening Trial (NCI)
 - CT of chest
 - Lower amounts of radiation; no contrast dye
 - Compared to chest X-ray
 - SCLC (aggressive) not often detected *in situ*; NSCLC frequently identified *in situ*
 - 16% less likely to die from lung cancer
 - Not population based (screening for healthy at high risk)
 - 55-80; good health, 30 pack year smoking history, current or quit within 15 years
 - Potential Risks
 - 1 of 4 abnormality but not cancer
 - Additional tests, some with complications (collapsed lung, death (rarely))
 - Radiation exposure higher than x-ray (increase risk of breast, lung, or thyroid)

Lung Cancer Stage at Diagnosis, 2013 US CiNA



••• Lung cancer research

- Molecular therapies for NSCLC
- Screening
- Histologic shifts
- CiNA:
 - ARN (lung cancer; comorbidities, demographic groups)
 - Survival, treatment, demographic groups
 - Disparities: insurance coverage; demographics
 - 2016: Geographic patterns in lung cancer incidence in the US (NCI)
 - 2016: State-level lung cancer burden (Lung Association)



A grid of colored rectangles. The top row consists of a green rectangle on the left containing the text "Questions?" and a blue rectangle on the right. The second row consists of a blue rectangle on the left and a green rectangle on the right. The third row consists of a green rectangle on the left containing the text "Quiz 1" and a blue rectangle on the right.

A grid of colored rectangles. The top row consists of a green rectangle on the left containing the text "Staging" and a blue rectangle on the right. The second row consists of a blue rectangle on the left and a green rectangle on the right containing the text "AJCC and SEER Summary". The third row consists of a green rectangle on the left and a blue rectangle on the right.

AJCC

Cancer

Stage

Lung: Chapter 25

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●●● AJCC Cancer Stage: Lung

- Classification
 - Clinical staging
 - Evidence acquired prior to treatment
 - Physical exam, imaging studies, lab tests, and staging procedures
 - Pathologic staging
 - Evidence acquired prior to treatment + evidence acquired during and after surgery, particularly from pathologic exam
 - Resection of primary tumor
 - Pathologic confirmation of lymph nodes
 - Pathologic confirmation of the highest pT **and** pN

●●● Lung

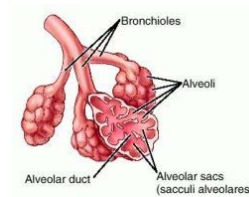
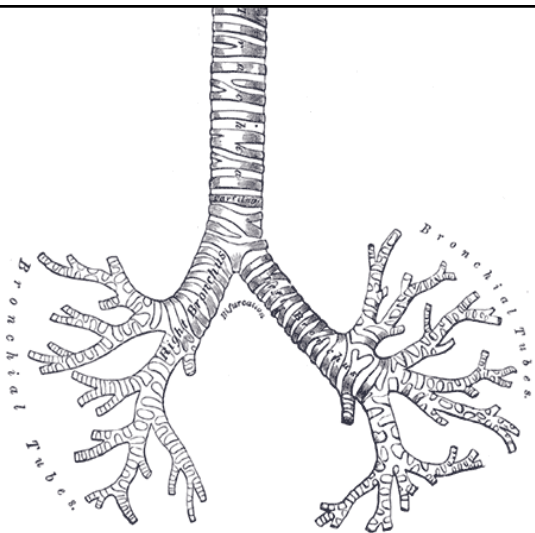
- ICD-O-3 Topography Codes
 - C34.0, C34.1, C34.2, C34.3, C34.8, C34.9
- ICD-O-3 Histology Code Ranges
 - 8000-8576
 - 8940-8950
 - 8980-8981

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●●● Common Histologies

- Squamous cell carcinoma
- Adenocarcinoma
- Bronchioloalveolar
- Small cell carcinoma



●●● Synchronous Tumors vs Intrapulmonary Spread

- Synchronous
 - More than one pulmonary lesion arising at the same time
 - Both lesions must arise independently in the lung
 - The second lesion must not represent metastasis
 - A benign nodule, infectious process, and metastasis from an extrapulmonary site must be excluded
- Intrapulmonary spread
 - Multiple tumors are present. One tumor is metastasis from another

<http://www.uptodate.com/contents/multiple-primary-lung-cancers>



●●● TX, T0, and Tis

- TX: Primary tumor cannot be assessed
OR tumor proven by presence of malignant cells in sputum or bronchial washings but not visualized by imaging or bronchoscopy
- T0: No evidence of primary tumor
- Tis: Carcinoma in situ



●●● Pop Quiz 2

- A patient presents for a bronchoscopy. No tumor is identified during the procedure, but bronchial washing was performed of suspicious area in the left main stem bronchus.
 - Pathology returned squamous cell carcinoma.
- A spiral CT was performed. No tumors were identified in the lung. No indication of metastasis.
- Patient treated with chemotherapy only

Data Item	Value
Clinical T	cTX
Clinical N	cN0
Clinical M	cM0
Clinical Stage	OC
Pathologic T	
Pathologic N	
Pathologic M	
Pathologic Stage	99



●●● T1

- T1: Tumor 3 cm or less surrounded by lung or visceral pleura without bronchoscopic evidence of invasion more proximal than the lobar bronchus
 - T1a: Tumor 2 cm or less
 - T1b: Tumor more than 2 cm but 3 cm or less



●●● AJCC Cancer Stage: Lung T Category

- T2a
 - Tumor more than 3 cm but 5 cm or less OR
 - Tumor 5cm or less with any of the following features
 - Involves main bronchus 2 cm or more distal to carina
 - Invades visceral pleura (PL1 or PL2)
 - Associated with atelectasis or obstructive pneumonitis that extends to hilar region but does not involve entire lung
- T2b: Tumor more than 5 cm but 7 cm or less with or without the features above

See page 263 AJCC Manual

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●●● Pop Quiz 3

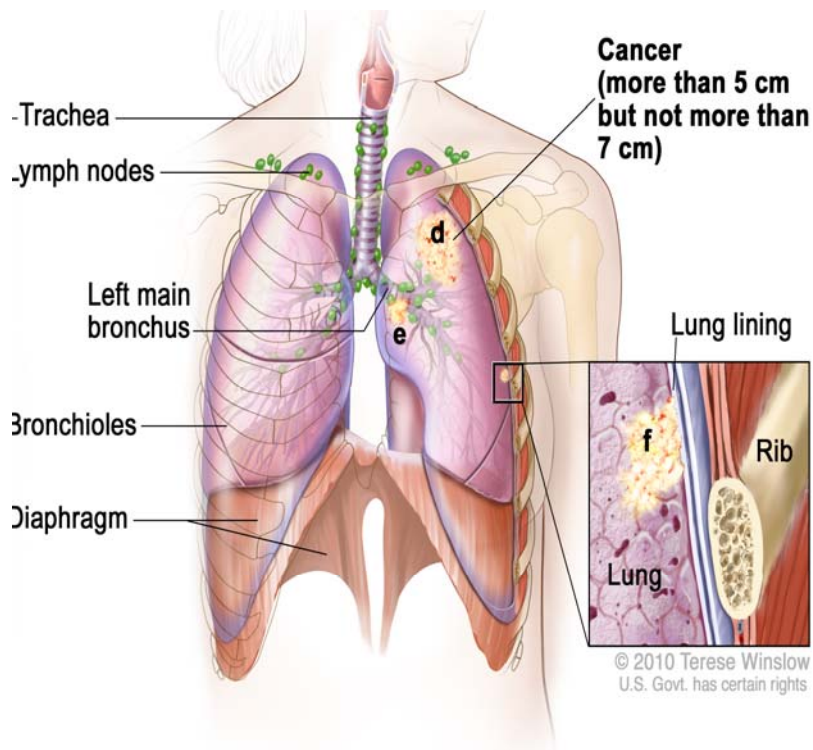
- A Pet CT showed a 2cm tumor in the peripheral portion of the right upper lobe lung. No metastasis was identified.
 - A biopsy of the tumor confirmed adenocarcinoma.
- The patient had a right upper lobectomy that showed adenocarcinoma measuring 2cm's with extension into, but not through the visceral pleura. 12 lymph nodes were negative for metastasis.

Data Item	Value
Clinical T	cT1a
Clinical N	cN0
Clinical M	cM0
Clinical Stage	1A
Pathologic T	pT2a
Pathologic N	pN0
Pathologic M	cM0
Pathologic Stage	1B



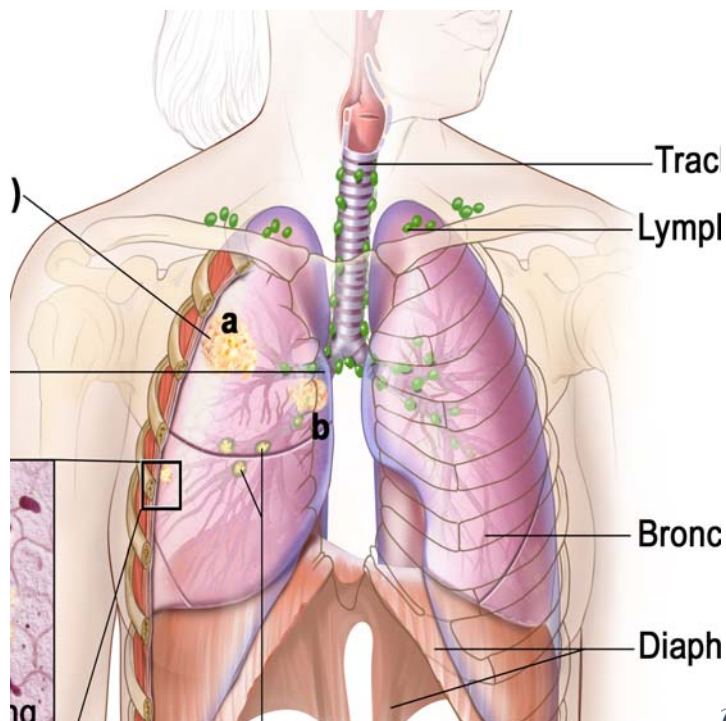
●●● T3

- Tumor more than 7cm OR
- Directly invades any of the following:
 - Parietal pleura (PL3)
 - **Chest wall**
 - Intercostal muscle
 - Ribs
 - Diaphragm
 - Phrenic nerve
 - Mediastinal pleura
 - Parietal pericardium



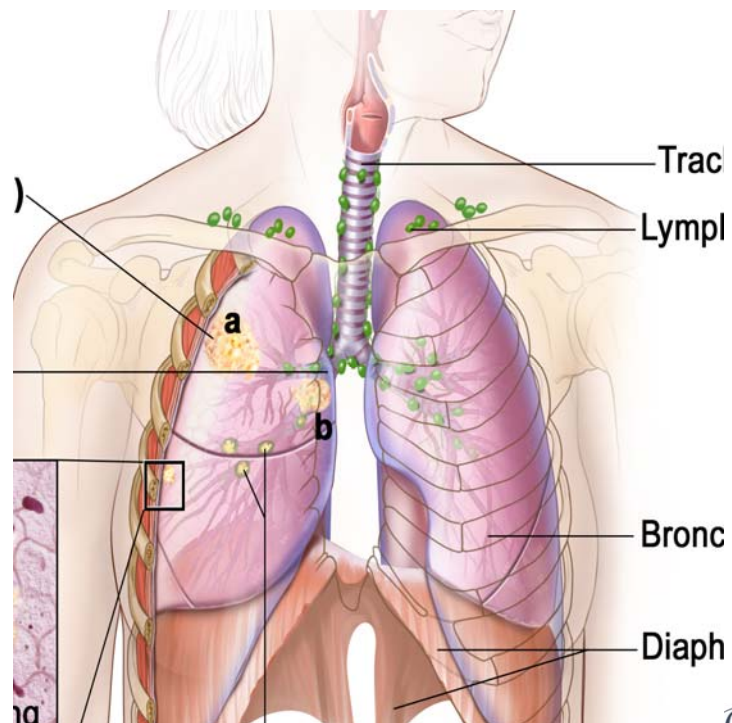
●●● T3

- Tumor in main bronchus less than 2 cm distal to carina but without involvement of carina OR
- Associated atelectasis or obstructive pneumonitis of entire lung OR
- Separate tumor nodule(s) in same lobe



●●● T4

- Direct extension into...
- Separate tumor nodule(s) in different ipsilateral lobe



●●● Pop Quiz 4

- A Pet CT showed a 4 cm tumor in the right main stem bronchus with direct extension into the carina. No metastasis was identified.
 - A biopsy of the tumor confirmed squamous cell carcinoma.
- The patient was treated with radiation and chemotherapy

Data Item	Value
Clinical T	cT4
Clinical N	cN0
Clinical M	cM0
Clinical Stage	3A
Pathologic T	
Pathologic N	
Pathologic M	
Pathologic Stage	99

●●● Pop Quiz 5

- A Pet CT showed a 4 cm tumor in the right upper lobe with total collapse of the right lung with post-obstructive atelectasis. Also noted was right sided mediastinal lymphadenopathy.
 - A biopsy of the primary tumor confirmed adenocarcinoma.
 - A mediastinoscopy and biopsy of a 4R lymph node was positive for metastasis.
- The patient was treated with radiation and chemotherapy

Data Item	Value
Clinical T	cT3
Clinical N	cN2
Clinical M	cM0
Clinical Stage	3A
Pathologic T	
Pathologic N	
Pathologic M	
Pathologic Stage	99



●●● Lung N Category

- NX: Regional lymph nodes cannot be assessed
- N0: No regional lymph node metastasis
- N1: Metastasis in ipsilateral peribronchial and/or ipsilateral hilar lymph nodes and intrapulmonary nodes including involvement by direct extension
- N2: Metastasis in ipsilateral mediastinal and/or subcarinal lymph nodes
- N3: Metastasis in contralateral mediastinal, contralateral hilar, ipsilateral or contralateral scalene, or supraclavicular lymph nodes



●●● M Category

- M0: No distant metastasis
- M1: Distant metastasis
- M1a
 - Separate tumor nodule(s) in contralateral lobe tumor with pleural nodules OR
 - Malignant pleural or pericardial effusion
- M1b: Distant metastasis (in extrathoracic organs)

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●●● Pop Quiz 6

- A Pet CT showed a 4 cm tumor in the right upper lobe and associated pleural effusion. Also noted was right sided mediastinal lymphadenopathy.
 - Thoracentesis was positive for malignancy.
 - A mediastinoscopy and biopsy of a 4R lymph node was positive for metastatic small cell carcinoma.
- A CT of the head showed brain metastasis.
- The patient was treated with radiation and chemotherapy

Data Item	Value
Clinical T	cT2A
Clinical N	cN2
Clinical M	pM1b
Clinical Stage	4
Pathologic T	
Pathologic N	
Pathologic M	pM1b
Pathologic Stage	4



Lung

CS Site-Specific Factor 1

Separate Tumor Nodules - Ipsilateral Lung

- Note 1: Separate tumor nodules in the ipsilateral lung are coded separately from CS Extension. Separate tumor nodules in the contralateral lung are coded in CS Mets at DX.
- Note 2: Separate tumor nodules can be defined clinically (by imaging) and/or pathologically.
- Note 3: If separate tumor nodules are not mentioned in imaging and/or pathological reports, use code 000.
- Note 4: For in situ tumors, code CS Site-Factor 1 to 000.

Code	Description
000	No separate tumor nodules noted
010	Separate tumor nodules in ipsilateral lung, same lobe
020	Separate tumor nodules in ipsilateral lung, different lobe
030	020 + 010 Separate tumor nodules, ipsilateral lung, same and different lobe
040	Separate tumor nodules, ipsilateral lung, unknown if same or different lobe
888	OBSOLETE DATA CONVERTED V0200 See code 988 Not applicable for this site
988	Not applicable: Information not collected for this case (May include cases converted from code 888 used in CSv1 for "Not applicable" or when the item was not collected. If this item is required to derive T, N, M, or any stage, use of code 988 may result in an error.)
999	Unknown if separate tumor nodules Separate tumor nodules cannot be assessed Not documented in patient record

Lung

CS Site-Specific Factor 2

Pleural/Elastic Layer Invasion (PL) by H and E or Elastic Stain

- Note 1: AJCC Staging Manual 7th Edition includes a standardized and precise definition of pleural/elastic layer invasion (PL). There are four categories:
 PL0 - Tumor that is surrounded by lung parenchyma or invades superficially into the pleural connective tissue beneath the elastic layer but falls short of completely traversing the elastic layer of the pleura
 PL1 - Tumor that invades beyond the elastic layer
 PL2 - Tumor that extends to the surface of the visceral pleura
 PL3 - Tumor that invades the parietal pleura
 Categories PL1 and PL2 are considered pleural invasion for staging and are classified as at least a T2. PL3 is classified as at least a T3. PL0 is not considered pleural invasion for TNM staging, and the T category is assigned based on other criteria. Other criteria can also raise the T category for PL1-3 tumors.
 When pathologists have difficulty assessing the relationship of the tumor to the elastic layer on routine hematoxylin and eosin (H and E) stains, they may perform a special elastic stain to make the determination.
- Note 2: Code results as stated on the pathology report. Code 998 if no histologic examination of pleura to assess pleural layer invasion.
- Note 3: If pleural/elastic layer invasion (PL) is not mentioned on the pathology report, code 999.
- Note 4: An FNA is not a histologic specimen and is not adequate to assess pleural layer invasion. If only an FNA is available, use code 998.
- Note 5: Metastasis to the pleura, that is pleural tumor foci or nodules separate from direct invasion, are coded in CS Mets at DX (code 24).

Code	Description
000	PL 0 No evidence of visceral pleural invasion (PL) Tumor does not completely traverse the elastic layer
010	PL 1 Invasion beyond the visceral elastic pleura, but limited to the pulmonary pleura Tumor extends through the elastic layer
020	PL 2 Invasion to the surface of the pulmonary pleura Tumor extends to the surface of the visceral pleura
030	PL 3 Tumor extends to the parietal pleura

Questions?

Summary Stage
Lung <http://seer.cancer.gov/tools/ssm/>

●●● Summary Stage 2000

- 0 In situ
 - Noninvasive; intraepithelial
- 1 Localized
 - Confined to carina
 - Confined to hilus of lung
 - Confined to main stem bronchus ≥ 2.0 cm from carina
 - Confined to main stem bronchus NOS
 - Extension from other parts of lung to main stem bronchus ≥ 2.0 cm from carina
 - Extension from other parts of lung to main stem bronchus NOS
 - Single tumor confined to 1 lung
 - Localized NOS



●●● Summary Stage 2000

- 2 Regional by direct extension only
 - Extension to major blood vessels, brachial plexus from superior sulcus, carina from lung, chest wall, diaphragm, esophagus, main stem bronchus < 2 cm from carina, mediastinum (extrapulmonary or NOS), nerves (cervical sympathetic, phrenic, recurrent laryngeal, vagus), pancoast tumor, parietal pleura, parietal pericardium, pericardium NOS, pleura NOS, pulmonary ligament, trachea, visceral pleura
 - Separate tumor nodule(s) in same lobe
 - Separate tumor nodule(s) in main stem bronchus
 - Tumor of main stem bronchus < 2 cm from carina

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●●● Summary Stage 2000

- 3 Regional IPSILATERAL lymph nodes(s) involved only
 - Aortic NOS, peri/para-aortic, subaortic, bronchial, carinal, hilar, intrapulmonary, mediastinal, pericardial, peri/parabronchial, peri/paraesophageal, peri/paratracheal, pre and retrotracheal, pulmonary ligament, subcarinal
 - Regional lymph nodes NOS
- 4 Regional by BOTH direct extension AND IPSILATERAL regional lymph node(s) involved
 - Summary Stage 2000 codes 2 + 3
- 5 Regional NOS

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●●● Summary Stage 2000

- 7 Distant site(s)/lymph node(s) involved
 - Distant lymph nodes
 - Cervical, contralateral/bilateral hilar, contralateral/bilateral mediastinal, scalene (ipsilateral or contralateral), supraclavicular (ipsilateral or contralateral), other distant lymph nodes
 - Extension to
 - Abdominal organs, adjacent rib, contralateral lung, contralateral main stem bronchus, heart, pericardial effusion, pleural effusion, skeletal muscle, skin of chest, sternum, vertebra(e), visceral pericardium
 - Separate tumor nodule(s) in different lobe
 - Separate tumor nodule(s) in contralateral lung
 - Metastasis

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●●● Pop Quiz

- CT Chest: 8.3 cm left lung upper lobe mass. Left hilar adenopathy, most likely malignant. 1.9 cm left adrenal mass consistent with adrenal adenoma. Small left sided pleural effusion.
- Left upper lobe lung biopsy: Poorly differentiated adenocarcinoma.
- Patient deemed inoperable and referred to oncology for treatment plan.

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●●● Pop Quiz

- What is the Summary Stage 2000?
 - 0 In situ
 - 1 Localized
 - 2 Regional by direct extension only
 - 3 Regional ipsilateral regional lymph node(s) involved only
 - 4 Regional by both extension and ipsilateral regional lymph node(s) involved
 - 5 Regional NOS
 - 7 Distant site(s)/node(s) involved

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Questions?

Quiz 2

Case Scenarios

●●● CE Certificate Quiz Survey

- Phrase
- Link
 - <http://www.surveymoz.com/s3/3207433/Lung-2016>

●●● Coming Up....

- AJCC Staging
– 1/12/2017
- Collecting Cancer Data: Colon
– 2/2/2017



●●● And Our Fabulous Prizes Go To...





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