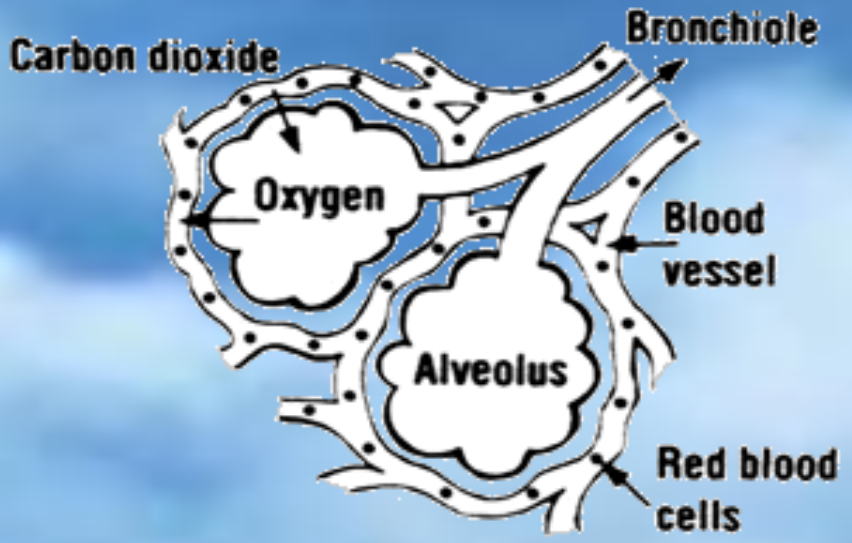
Lung Cancer



Louanne Currence, RHIT, CTR

with help from NPCR presentation 2006
& Lung Backgrounder from MP/H

Lung CA Facts

- #2 Incidence for men & women
  - Approximately 175,000 new cases predicted for 2006
  - 93,000 men; 82,000 women
  - 13% of all new cancers
  - 70% over age 65
- #1 killer for men & women
  - 75% die within first 2 years

Annual Age-Adjusted Cancer Incidence Rates

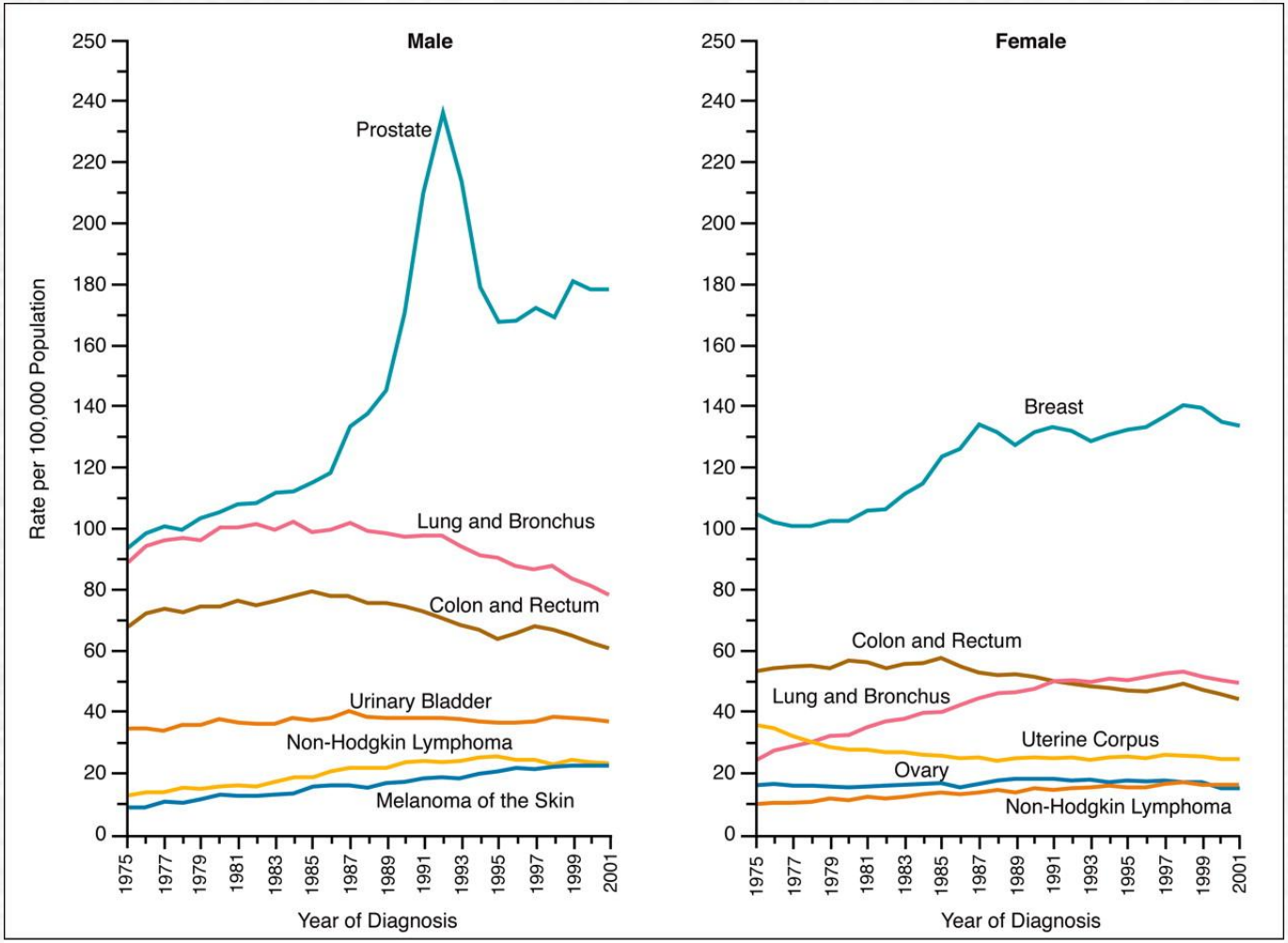


FIGURE **3** Annual Age-adjusted Cancer Incidence Rates* Among Males and Female for Selected Cancer Types, US, 1975 to 2001.
*Rates are age-adjusted to the 2000 US standard population.
Source: Surveillance, Epidemiology, and End Results (SEER) program, nine oldest registries, 1975 to 2001, Division of Cancer Control and Population Sciences, National Cancer Institute, 2004.

From Jemal, A. et al.
CA Cancer J Clin 2005;55:10-30.

CA
A Cancer Journal for Clinicians

Annual Age-Adjusted Cancer Death Rates

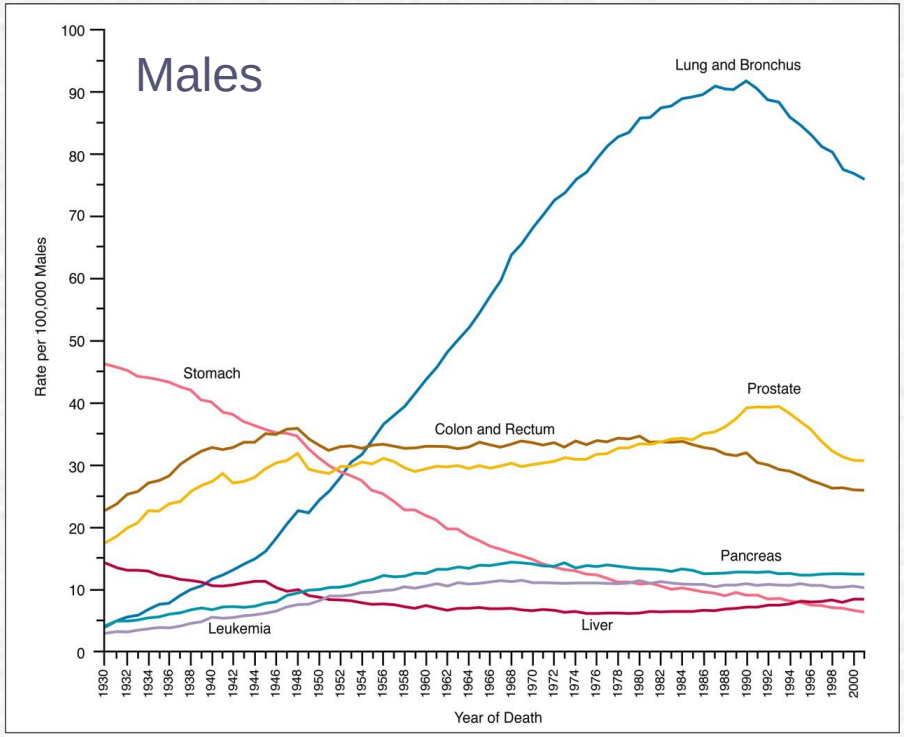


FIGURE **4** Annual Age-adjusted Cancer Death Rates* Among Males for Selected Cancer Types, US, 1930 to 2001.
*Rates are age-adjusted to the 2000 US standard population.
Note: Due to changes in ICD coding, numerator information has changed over time. Rates for cancers of the lung and bronchus, colon and rectum, and liver are affected by these changes.
Source: US Mortality Public Use Data Tapes, 1960 to 2001, US Mortality Volumes, 1930 to 1959, National Center for Health Statistics, Centers for Disease Control and Prevention.

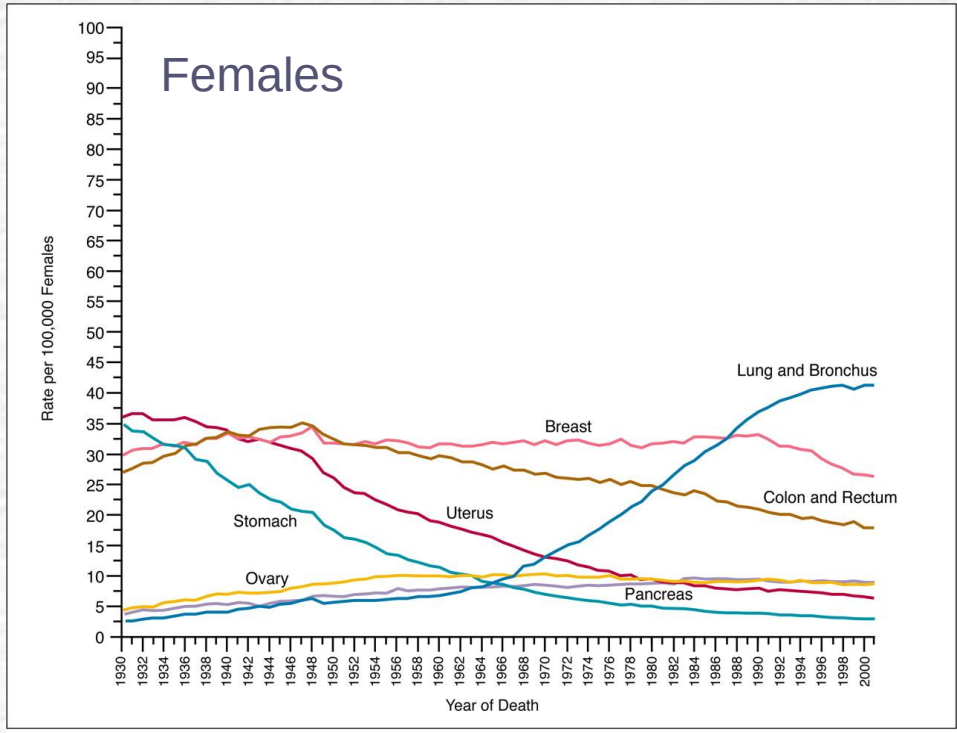


FIGURE **5** Annual Age-adjusted Cancer Death Rates* Among Females for Selected Cancer Types, US, 1930 to 2001.
*Rates are age-adjusted to the 2000 US standard population.
Note: Due to ICD coding, numerator information has changed over time. Rates for cancers of the uterus, ovary, lung and bronchus, and colon and rectum are affected by these changes. Uterus cancers are for uterine cervix and uterine corpus combined.
Source: US Mortality Public Use Data Tapes, 1960 to 2001, US Mortality Volumes 1930 to 1959, National Center for Health Statistics, Centers for Disease Control and Prevention.

From Jemal, A. et al.
CA Cancer J Clin 2005;55:10-30.

CA
A Cancer Journal for Clinicians

Risk Factors

- Smoking
  - 80% patients have hx
  - 30% patients 2nd hand
- Asbestos
- Radon
- Chemical exposure
- Lung Scars
- Family history 1st degree relatives
- Personal history
- Diet
- Air pollution

Screening?

- Routine chest x-ray
- Sputum cytology
- Low-dose helical CT
- Per NCI website:
  - Benefits: Based on fair evidence, screening does not reduce mortality from lung cancer.
  - Harms: Based on solid evidence, screening would lead to false-positive tests and unnecessary invasive diagnostic procedures and treatments.

Symptoms

- Chest pain
- Hemoptysis
- Shortness of breath
- Dyspnea
- Hoarseness

- Weakness
- Fatigue
- Loss of appetite
- Weight loss

- 7-10% asymptomatic

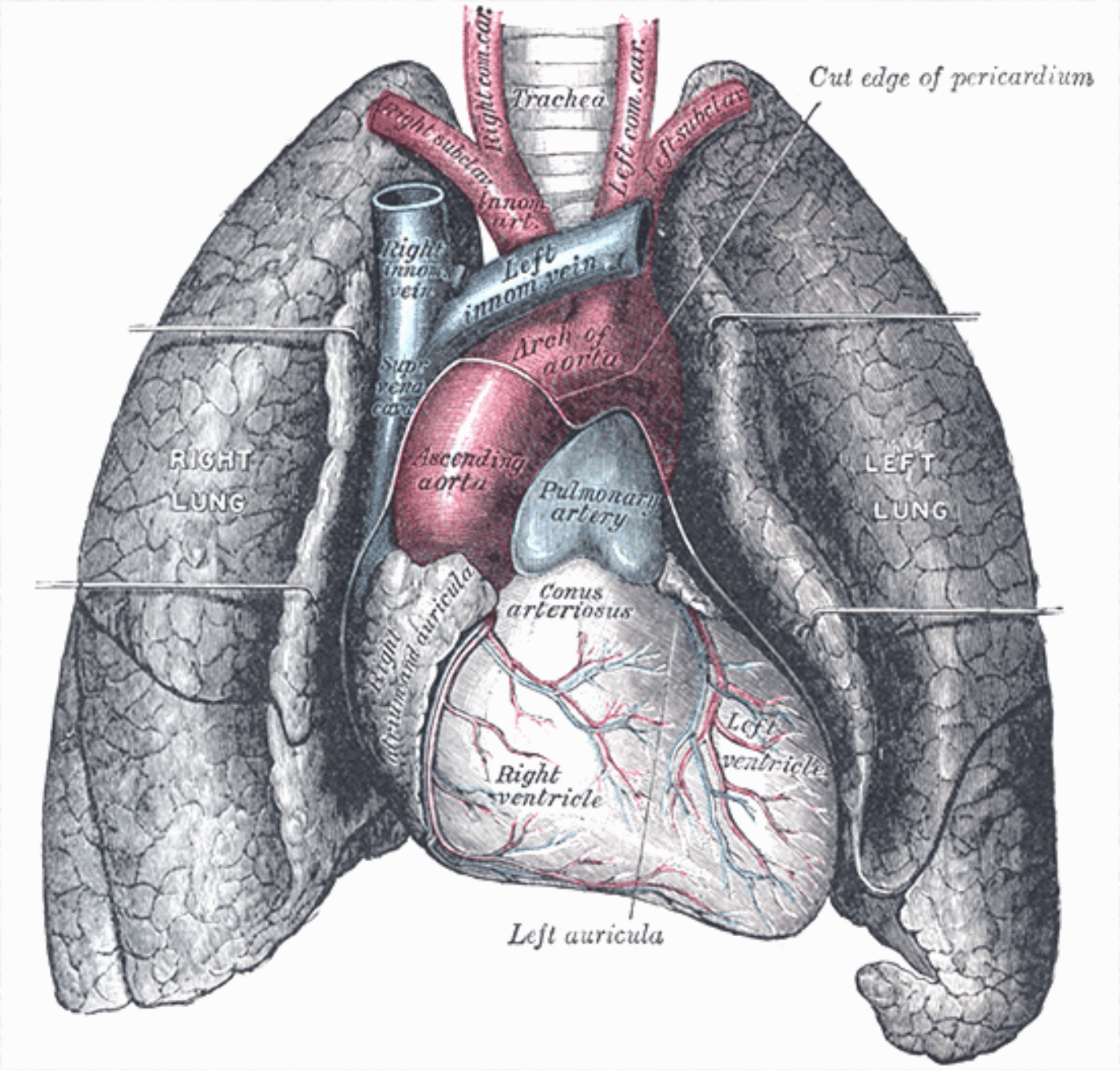
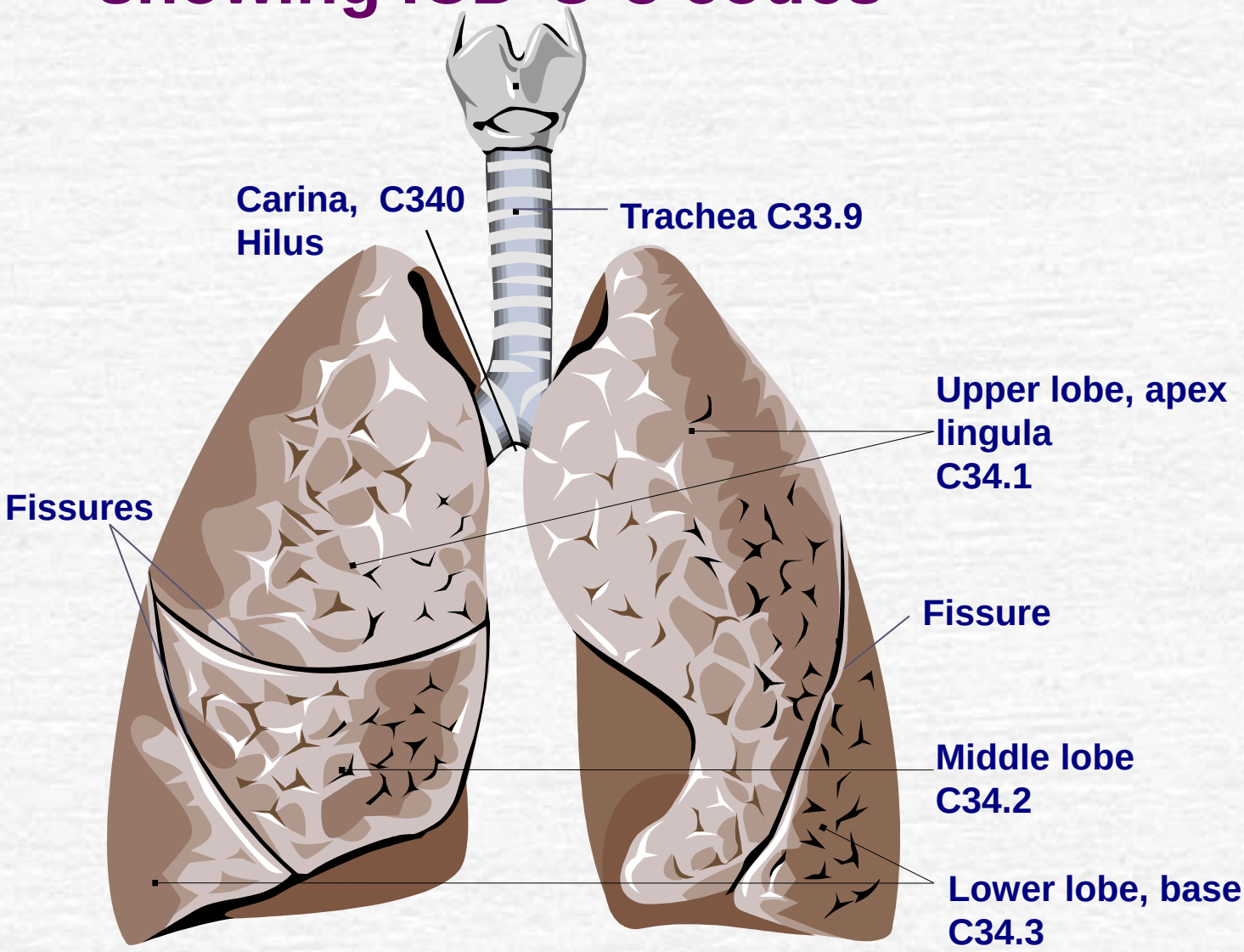
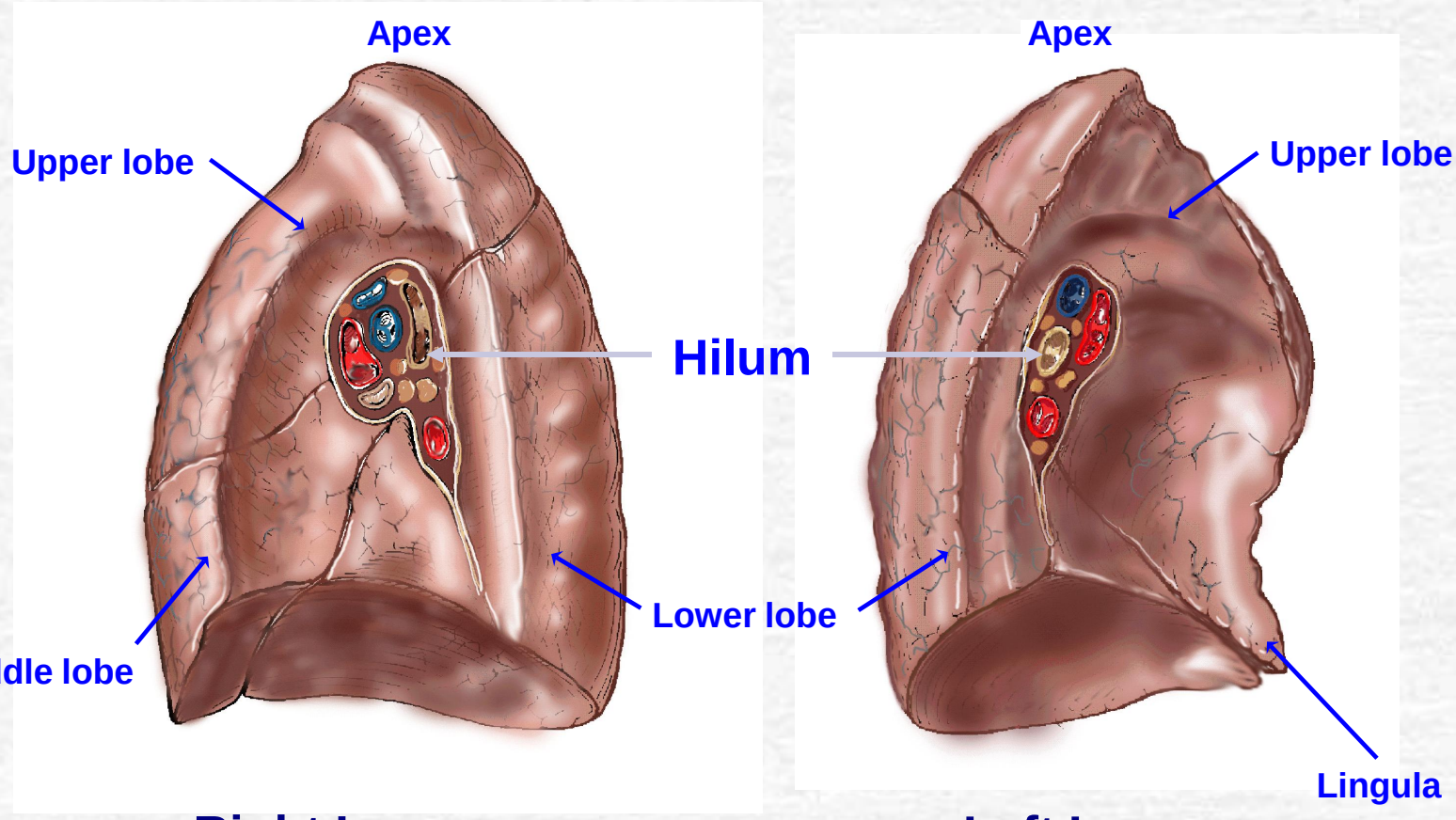


Illustration from Gray's Anatomy, found on this website: www.bartleby.com

Lung Anatomy
showing ICD-O-3 codes

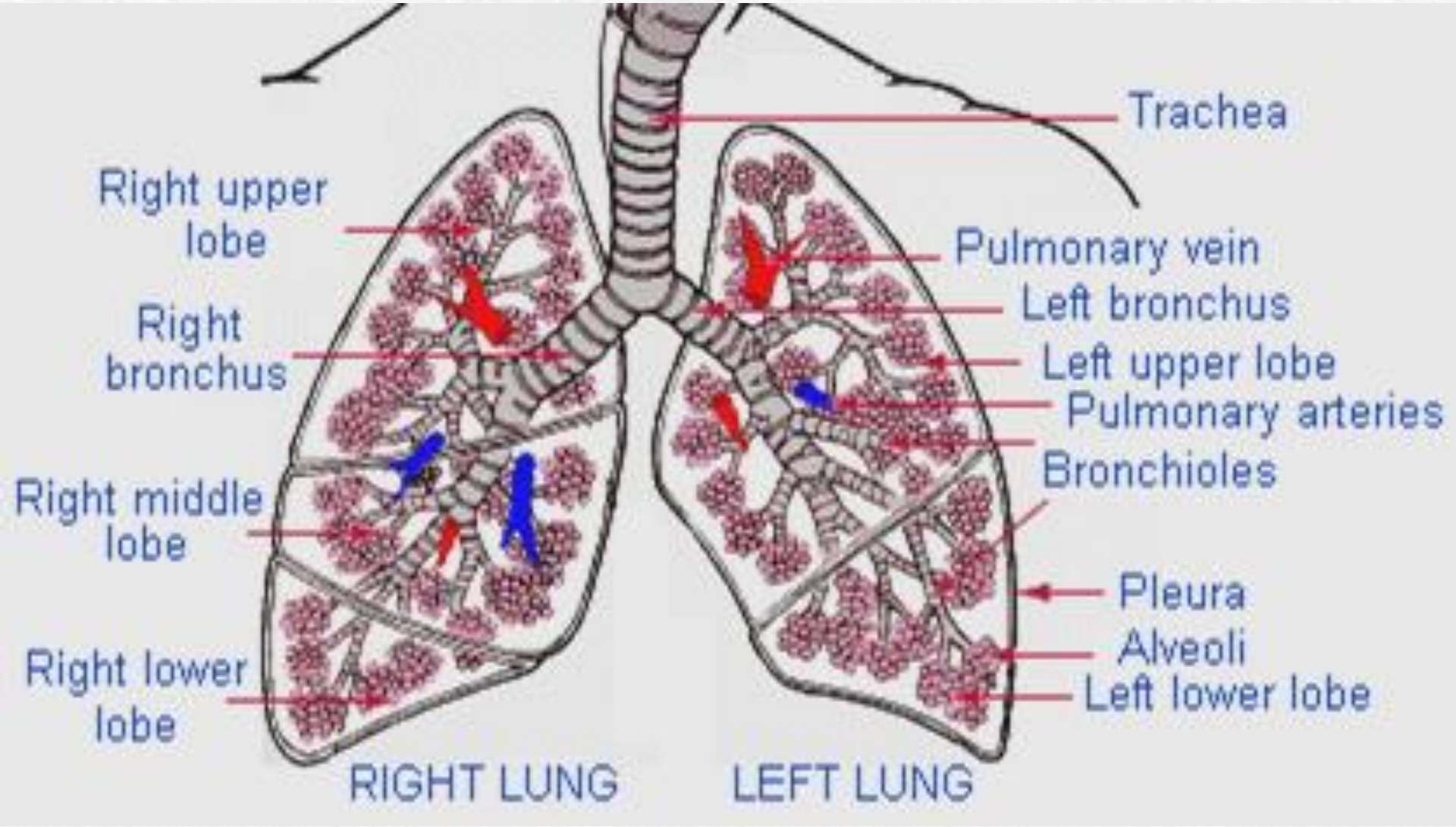


Important Anatomical Landmarks



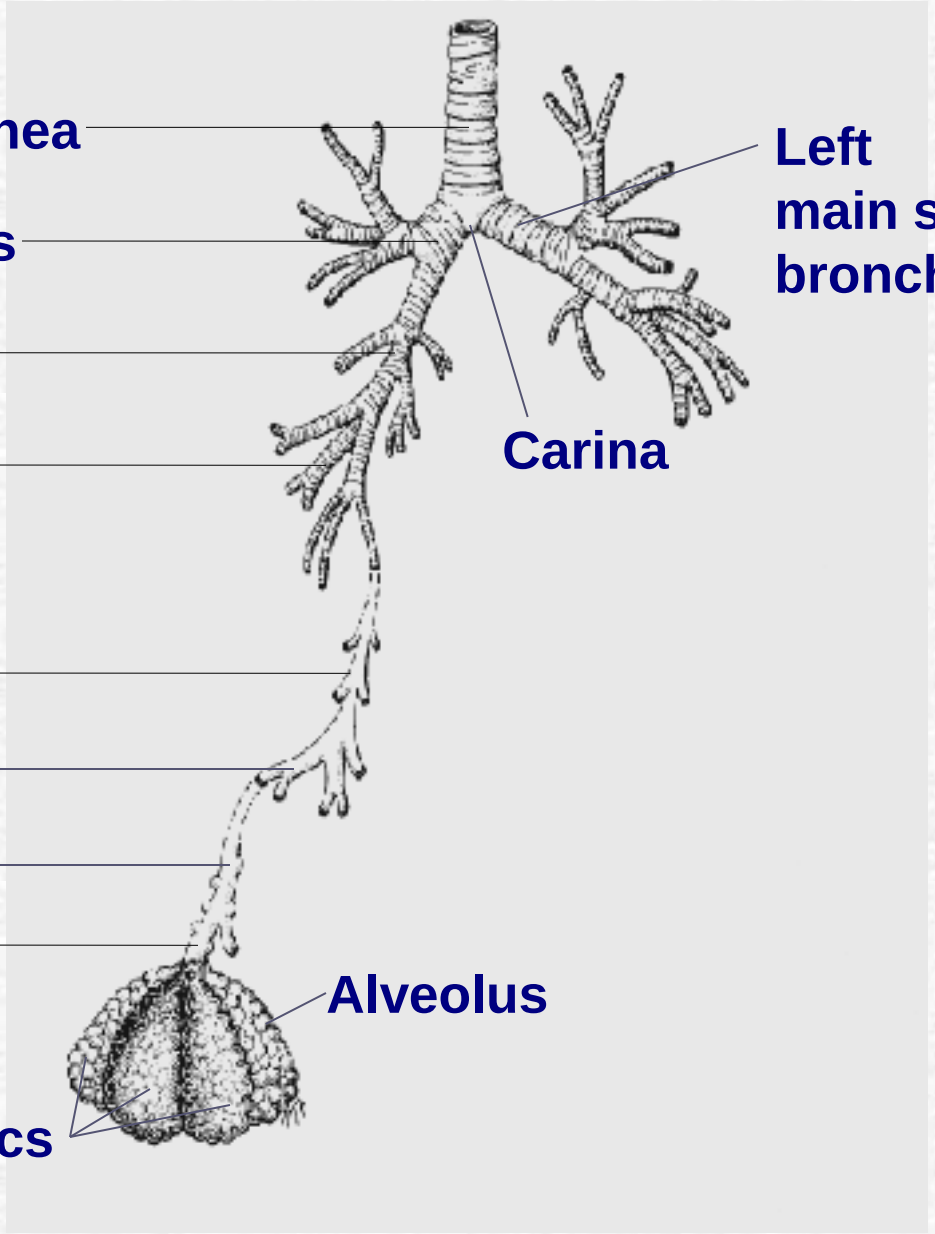
Graphics source: Mediclip, Williams and Wilkins.

Alveoli

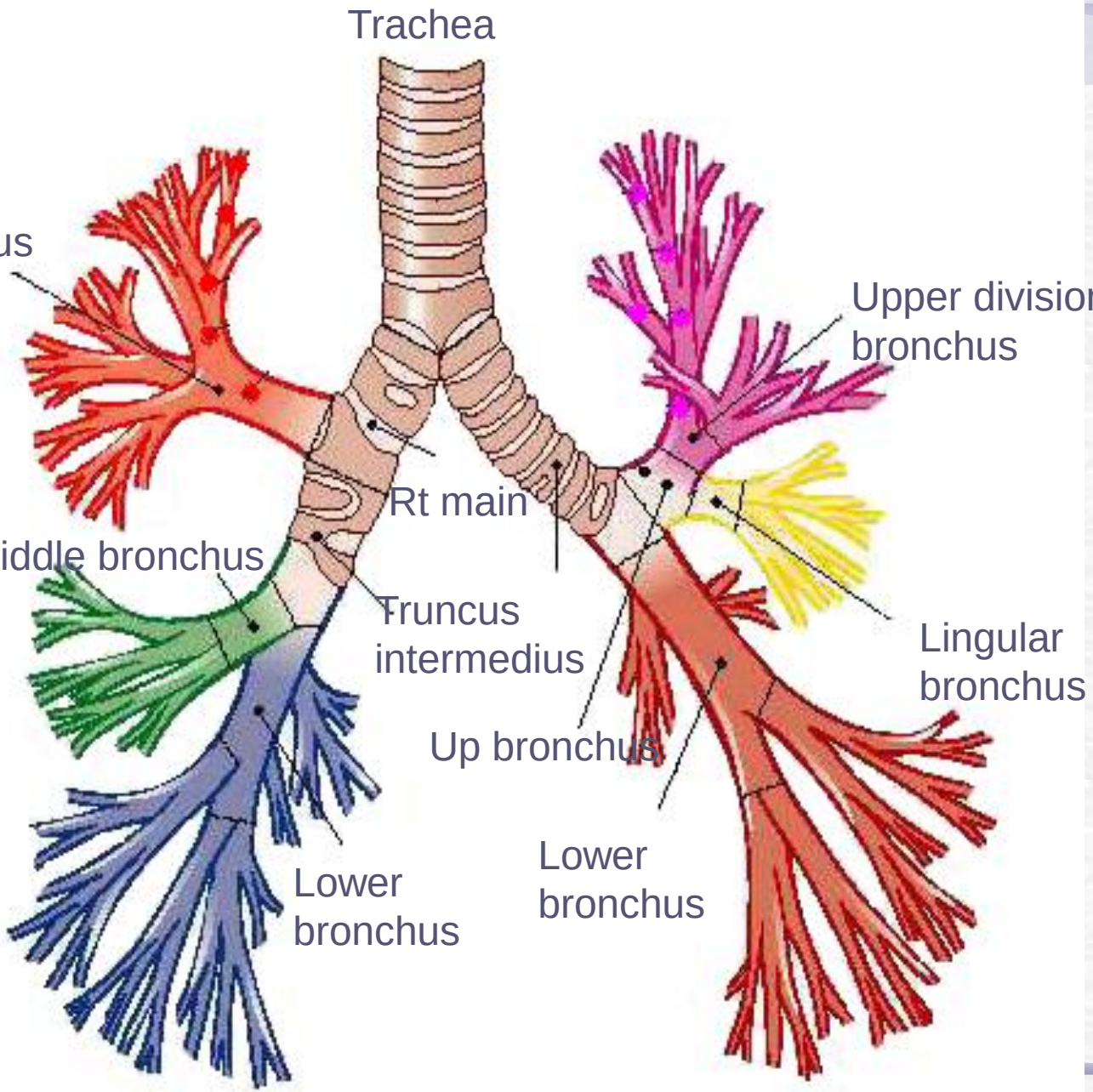


Source: http://www.webschoolsolutions.com/patts/systems/lungs.htm#anatomy

Respiratory tract



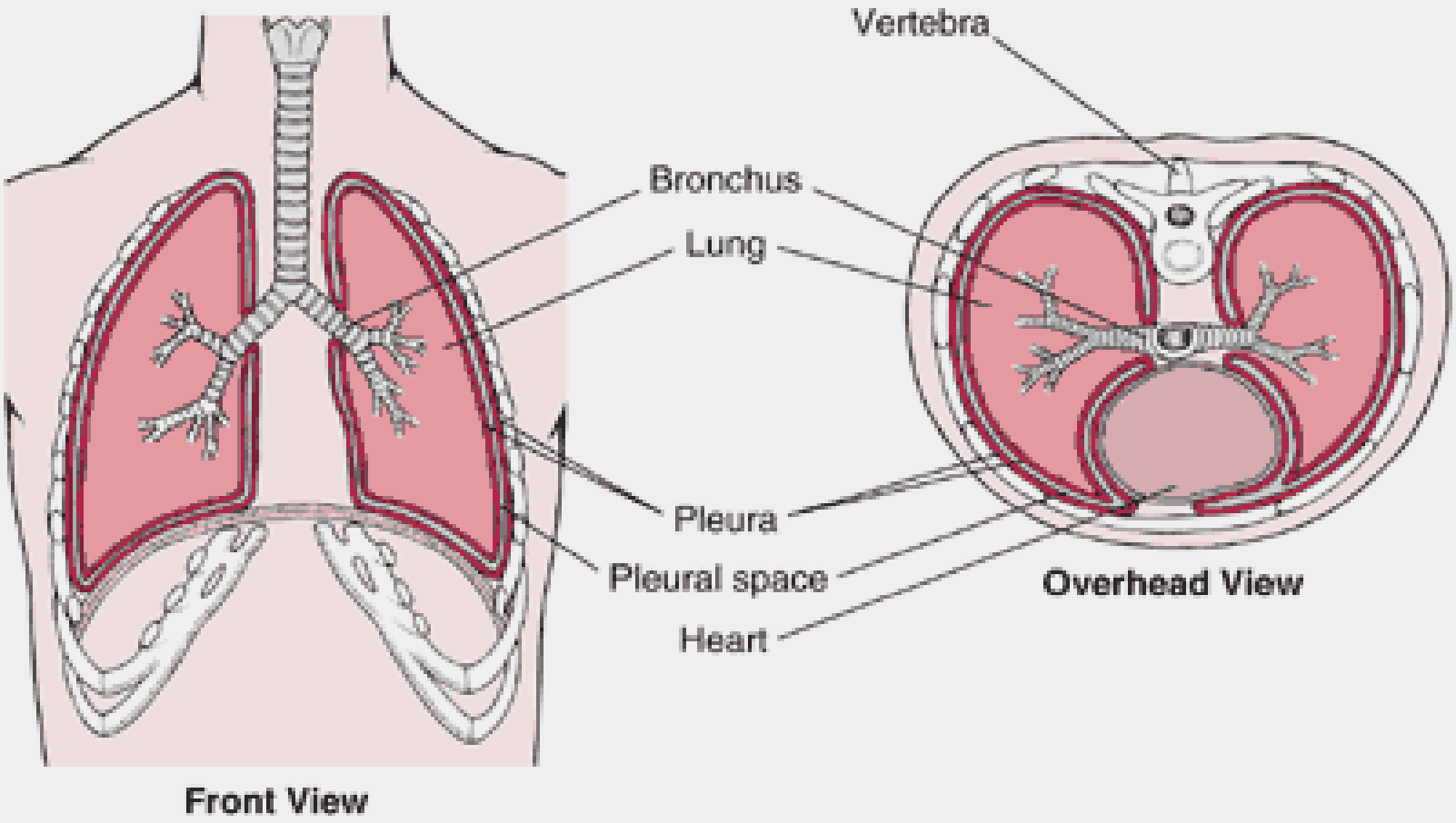
Adapted from R S Snell: Clinical Anatomy for Medical Students, 5th ed. 1995.



www.szabist.edu.pk/bronchology

Laterality for Lung

- Code the laterality for the lung in which the tumor originated
- Count cancer in both lungs as separate primaries unless metastasis from one side to the other is documented
- Code laterality for all lung subsites except carina
  - Per FORDS, page 11, and SEER PCSM 2004, page 79



www.merck.com

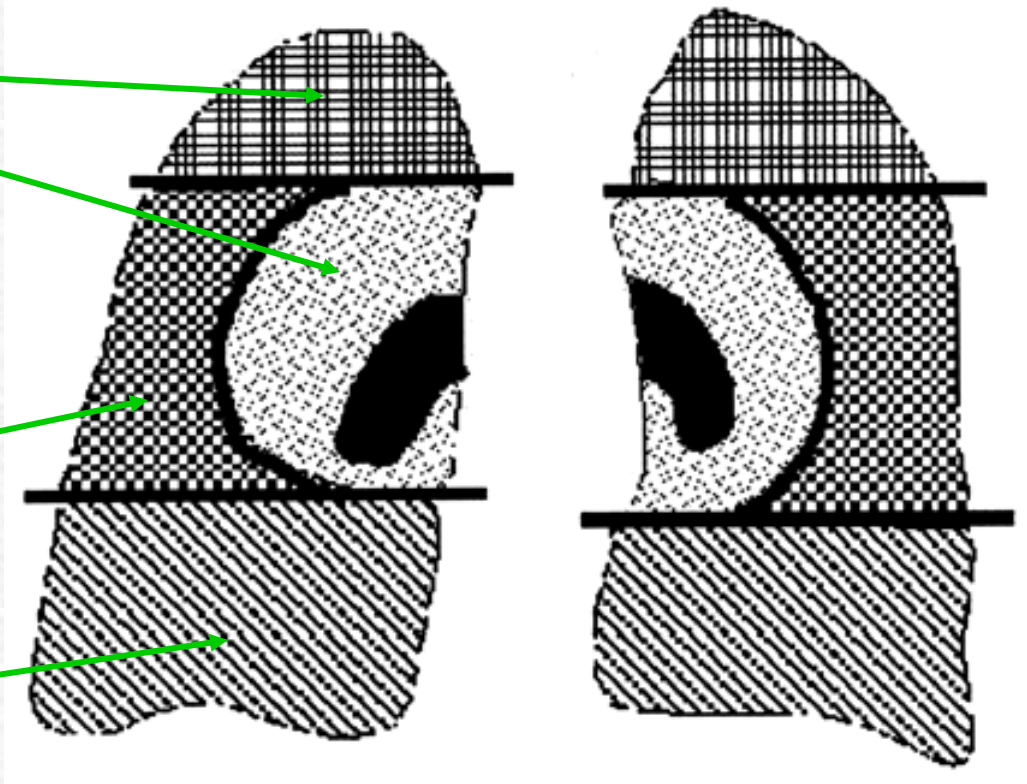
Radiographic Areas of Lung

Apex--upper 25%

Central--area surrounding lung hila up to half of distance between hila and lateral border of lung

Peripheral--remaining lateral, anterior and posterior space around central area

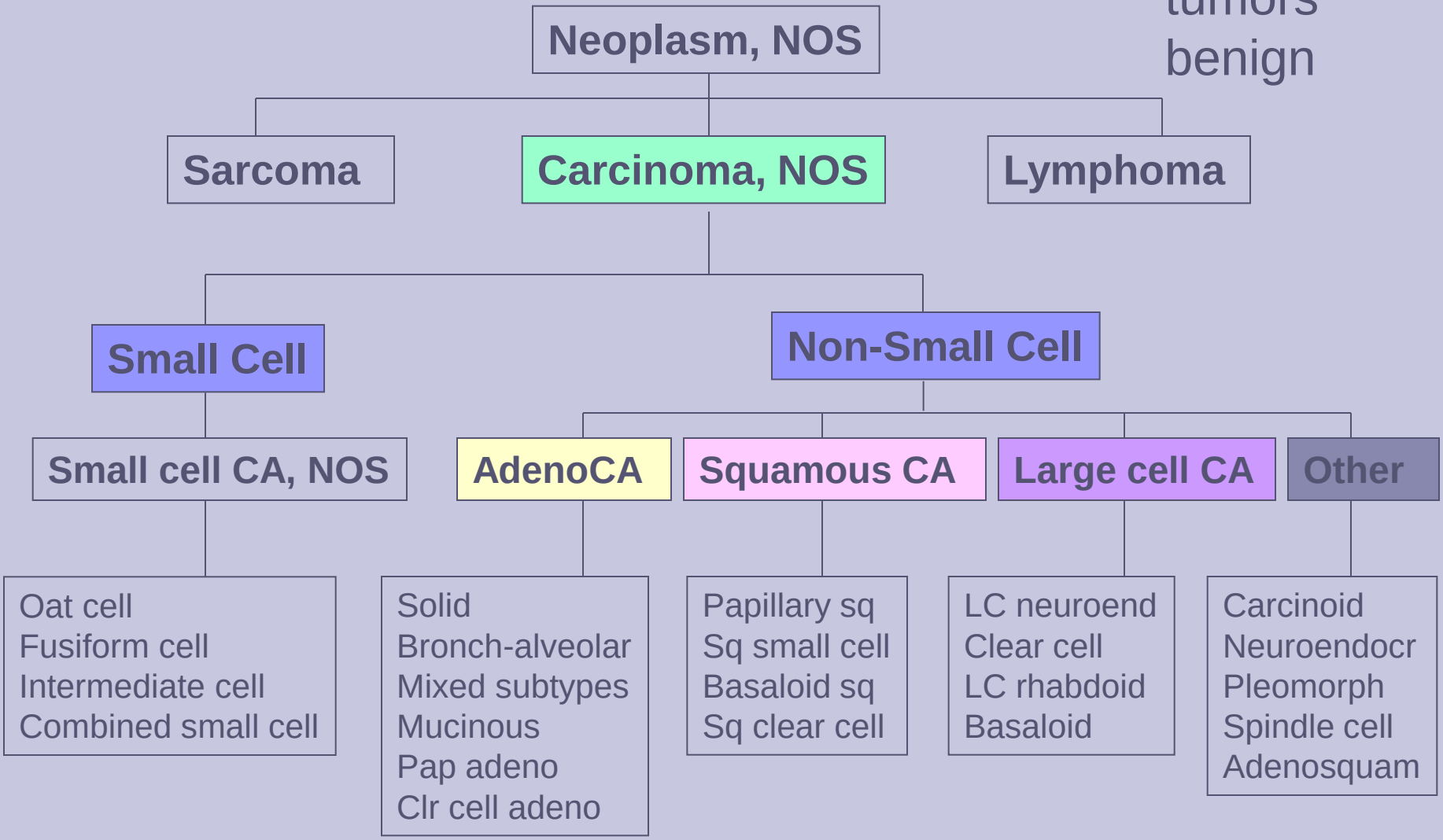
Base--lower 25%



Source: *Journal of Nuclear Medicine* Vol. 43 No. 11 1469-1475, 2002.

Lung Histologies

60% lung tumors benign



Small Cell Carcinoma

- About 15-20% of all lung cancers
- Observed survival*
  - 1 year: 34.4%
  - 5 year: 4.8%
- ICD-O-3 codes 8041-8045
- Location: usually central
- Highly linked to smoking
- Metastasizes early and widely
- Very aggressive; sensitive to chemotherapy

Adenocarcinoma

- About 30-50% of all lung cancers
- Observed survival*
  - 1 year: 42.3%
  - 5 year: 16.5%
- Location: terminal bronchioles, close to pleura
- Associated with smoking, but most common histology in non-smokers
- Spreads to pleura (77%); vascular invasion common
- Frequently a mix of histologic subtypes
- Surgically treatable if found while small

Squamous Cell

- About 30% of all lung cancers
- Observed survival*
  - 1 year: 44.6%
  - 5 year: 13.3%
- ICD-O-3 codes 805x – 808x
- Location: anywhere in bronchi
- Highly linked to smoking
- Spreads to mediastinum, thoracic wall, diaphragm
- Surgically curable if found when small and well-differentiated

Bronchioloalveolar

- Only 3% of all lung cancers
- Observed survival*
  - 1 year: 70.2%
  - 5 year: 37.9%
- "Best" prognosis of lung cell types
- Subset of WHO Adenocarcinoma category (ICD-O-3 codes 8250 – 8254)
- Location: peripheral; arises in bronchioles or alveolar walls
- Not usually associated with smoking
- Slow growing and slow to metastasize; tends to grow as a thick layer of cells covering respiratory membrane
- Solitary lesions can be resected

Large Cell

- Only about 3-5% of all lung cancers
- Observed survival*
  - 1 year: 33.8%
  - 5 year: 9.8%
- Term used when pathologist can't distinguish epithelial (squamous) or glandular (adeno) origin (NOT the opposite of small cell)
- Usually undifferentiated
- Location: anywhere in lungs, usually peripheral
- Related to smoking
- Metastasizes similar to adenocarcinoma
- Generally treated the same way as squamous or adenocarcinoma

Mixed/Combination Cell Types

- 1% of all lung cancers
- Observed survival*
  - 1 year: 53.1%
  - 5 year: 19.8%
- Includes adenosquamous (8560) and adenocar-cinoma with mixed subtypes (8255)
  - Adenosquamous: usually peripheral; worse prognosis than adeno or squamous individually
- Adenocarcinoma with mixed subtypes--new code in ICD-O-3 (as of 2001)

Others

- Neuroendocrine, giant cell, spindle cell, sarcomatoid, and pleomorphic carcinoma, carcinosarcoma
  - malignant, NOS, carcinoma, NOS, non-small cell, NOS, carcinoids
- Sarcoma
- Lymphoma

Histology Coding Rules: Lung

- Rules are a hierarchy
- Use the first rule that applies
- Rules from SEER Program Coding and Staging Manual (PCSM) 2004, pages 86-87

Single Tumor

1. Code the histology if only one type is mentioned in the pathology report

Example:
*A*denocarcinoma, periphery of RUL lung

***Answer:* 8140/3**
Adenocarcinoma, NOS

Histology Coding Rules: Lung

2. Code the **invasive histology** when both invasive and in situ tumor is present

   Example: RUL lung tumor, pleomorphic carcinoma and squamous cell carcinoma in situ

Pleomorphic carcinoma	8022/3
Squamous cell carcinoma in situ	8070/2

   ***Answer:* 8022/3 Pleomorphic carcinoma**

Exception: If the histology of the invasive component is an 'NOS' term such as carcinoma, adenocarcinoma, melanoma, or sarcoma, then code the histology using the specific term associated with the in situ component and the invasive behavior.

Histology Coding Rules: Lung

3. Use a **mixed** histology code if one exists
4. Use a **combination** code if one exists

Example: Peripheral area of LLL lung, adenocarcinoma and epidermoid carcinoma

Answer: **8560/3 Adenosquamous carcinoma**

Histology Coding Rules: Lung

5. Code the **more specific term** when one of the terms is 'NOS' and the other is a more specific description of the same histology

   Example: LUL lung, adenocarcinoma and bronchiolar adenocarcinoma

Adenocarcinoma, NOS	8140/3
Bronchiolar adenocarcinoma	8250/3

   ***Answer:* 8250/3 Bronchiolo-alveolar adenocarcinoma**

Histology Coding Rules: Lung

6. Code the **majority** of the tumor

- Terms that mean majority of tumor:
  - Predominantly; with features of; major; type (eff. 1/1/99); with….differentiation (eff. 1/1/99); pattern and architecture (if in CAP protocol; eff. 1/1/2003)
    - Terms documented in SEER PCSM 2004, page 85

Example: Small cell carcinoma, predominantly oat cell, RML lung lesion = **8042/3 Oat cell carcinoma**

Histology Coding Rules: Lung

6. (continued)

- Terms that DO NOT mean majority of tumor
  - With foci of; focus of/focal; areas of; elements of; component (eff.1/1/99)
    - Terms documented in SEER PCSM 2004, page 85

Example: LUL lung, non-small cell carcinoma, focally bronchiolo-alveolar carcinoma = **8046/3 Non-small cell carcinoma**

Histology Coding Rules: Lung

7. Code the **numerically higher** ICD-O-3 code (Rule K)

Example: Right lung lesion, large cell carcinoma and spindle cell carcinoma

Large cell carcinoma	8012/3
Spindle cell carcinoma	8032/3

***Answer:* 8032/3 Spindle cell carcinoma**

Histology Coding Rules: Lung

Multiple Tumors with Different Behaviors in Same Organ Reported as Single Primary

Code the histology of the invasive tumor when one lesion is in situ and the other is invasive

Example: 2 lesions, left lung:

1) adenocarcinoma in situ, LUL 8140/2
2) adenocarcinoma, LLL 8140/3

***Answer:* 8140/3 Adenocarcinoma**

Histology Coding Rules: Lung

Multiple Tumors in Same Organ Reported as Single Primary

1. Code histology when multiple tumors have the same histology

Example: Right lung, 2 lesions

1) squamous cell carcinoma, RUL 8070/3
2) squamous cell carcinoma, RML 8070/3

***Answer:* 8070/3 Squamous cell carcinoma**

Histology Coding Rules: Lung

5. Code the more specific term when one of the terms is 'NOS' and the other is a more specific description of the same histology

Example: Right lung, 2 lesions

1) adenocarcinoma, RUL	8140/3
2) tubular adenocarcinoma, RLL	8211/3

***Answer:* 8211/3 Tubular adenocarcinoma**

Histology Coding Rules: Lung

6. Code all other multiple tumors with different histologies as multiple primaries

Example: Left lung, 2 lesions

1) squamous cell carcinoma, LUL 8070/3
2) spindle cell carcinoma, LLL 8032/3

Answer: **2 primary sites; complete abstract for each one**

Coding Grade for Lung

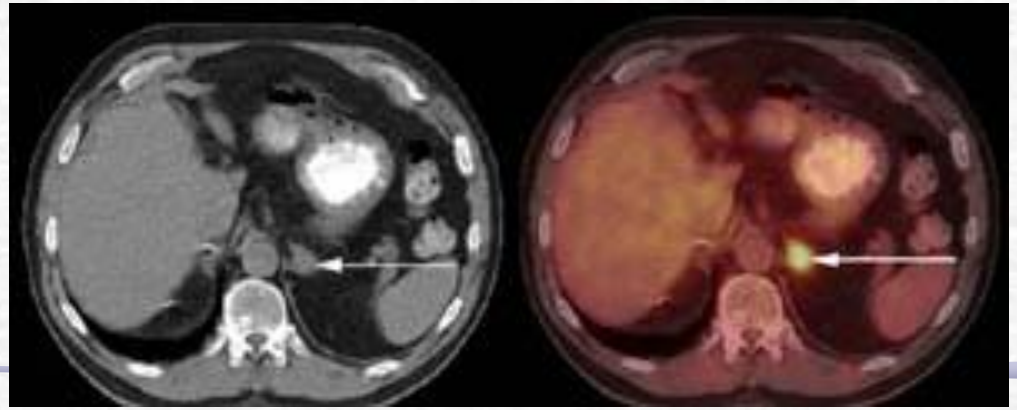
- Histologic grade, differentiation, codes
  - 1 = well differentiated
  - 2 = moderately differentiated
  - 3= poorly differentiated
  - 4= undifferentiated
- Do NOT use tumor grade from pathology of metastatic site
  - EX: Mediastinal LN = PD Adenoca, grade = 9

WORK-UP

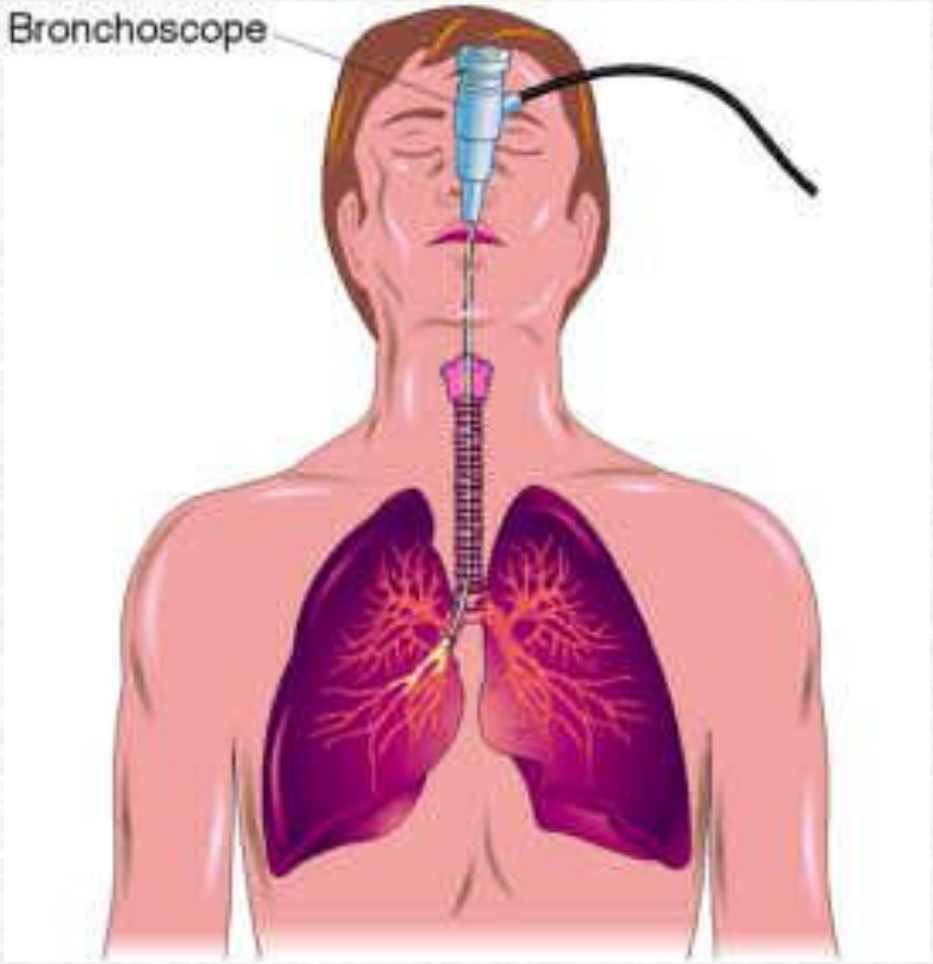
Lung

Radiology

- Chest x-ray
- CT scan chest
- PET scan
- CT scan other
- Bone scan



Scopes



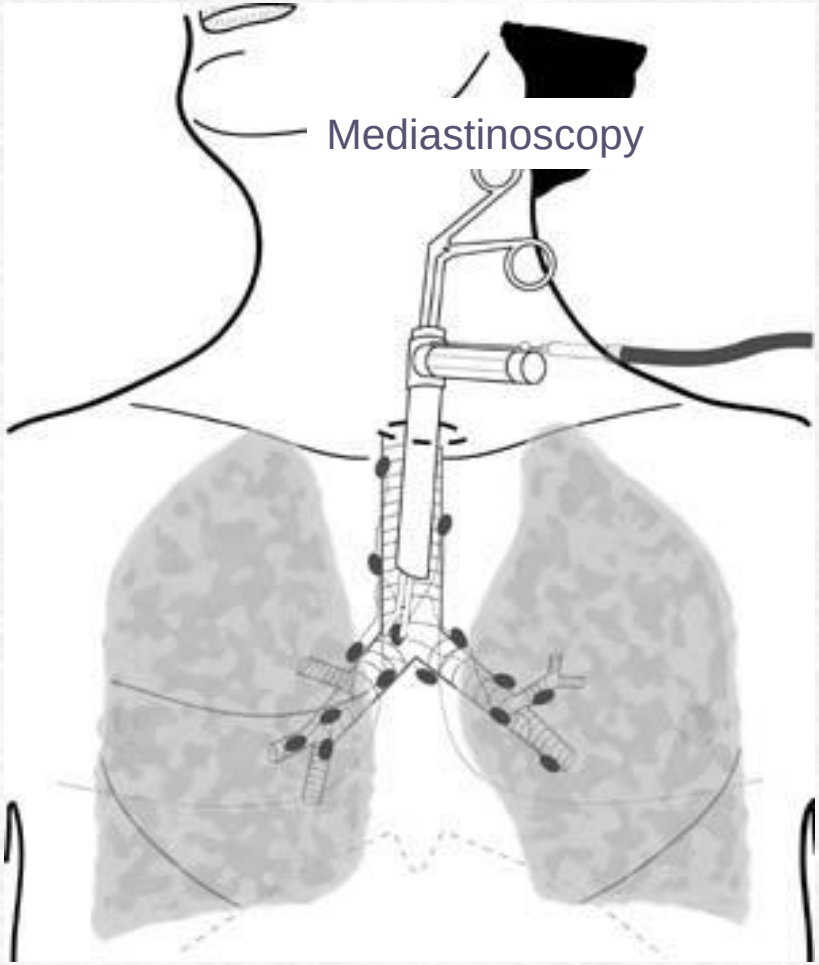
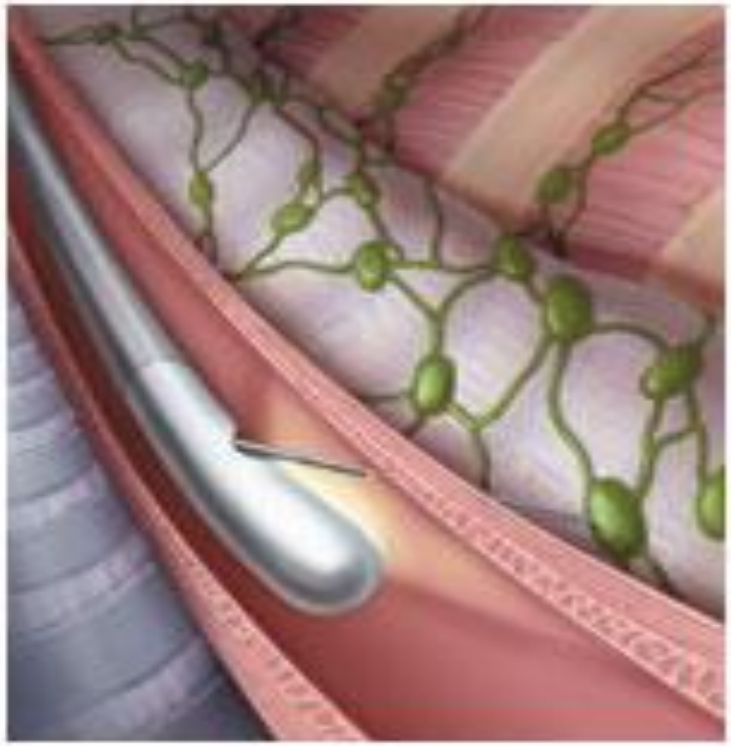


Illustration by Electronic Illustrators Group
www.ehealthconnection.com

www.cancernews.com

Endoscopic Ultrasound



The physician inserts a curvilinear echoendoscope into the esophagus and with ultrasonic assistance guides the fine needle through the esophagus into the target lesion.

www.health.uab.edu

Collaborative Staging

Lung

CS Tumor Size

- Priority
  - Path
    - Within path report? (Final vs microscopic vs gross??)
  - Op report
  - Scans (CT over MRI over PET??)
- Autopsy? Only if pt expire during workup

CS Extension Lung: Notes

1. Code direct extension or other involvement of structures considered M1 in AJCC staging in CS Mets at DX
   - Sternum
   - Skeletal muscle
   - Skin of chest
   - Contralateral lung or main stem bronchus
   - Separate tumor nodule in different lobe, same lung, or in contralateral lung

CS Extension Lung: Notes

2. Assume the tumor is greater than or equal to 2 cm from the carina if lobectomy, segmental resection, or wedge resection is done

   Code 20: Tumor involving main stem bronchus greater than or equal to 2 cm from carina

   Code 21: Tumor involving main stem bronchus, NOS

CS Extension Lung: Notes

3. If no mention of opposite lung is made on the chest x-ray, assume it is not involved
4. Bronchopneumonia is not the same as obstructive pneumonitis and should not be coded as such

    Code 40: Atelectasis/obstructive pneumonitis that extends to the hilar region but doe not involve entire lung

    Code 55: Atelectasis/obstructive pneumonitis involving entire lung

CS Extension Lung: Notes

5. Pulmonary artery/vein
   - Code involved pulmonary artery/vein in the mediastinum to 70
   - If the involvement of artery/vein appears to be only within the lung and not in the mediastinum, do not use code 70

CS Extension Lung: Notes

6. Pleural effusion

   A. SEER: Ignore pleural effusion that's negative for tumor; assume negative if resection done

   B. AJCC: If multiple cytopathologic exams of pleural fluid are negative, exclude pleural effusion as a staging element

   Do not use code 72 if A or B

CS Extension Lung: Notes

7. Vocal cord paralysis, superior vena cava obstruction, or compression of trachea or esophagus
   - Use code 70 if caused by involvement of recurrent branch of vagus nerve or by tumor location
   - Code in CS LYMPH nodes as mediastinal node involvement if the tumor is peripheral and unrelated to the conditions

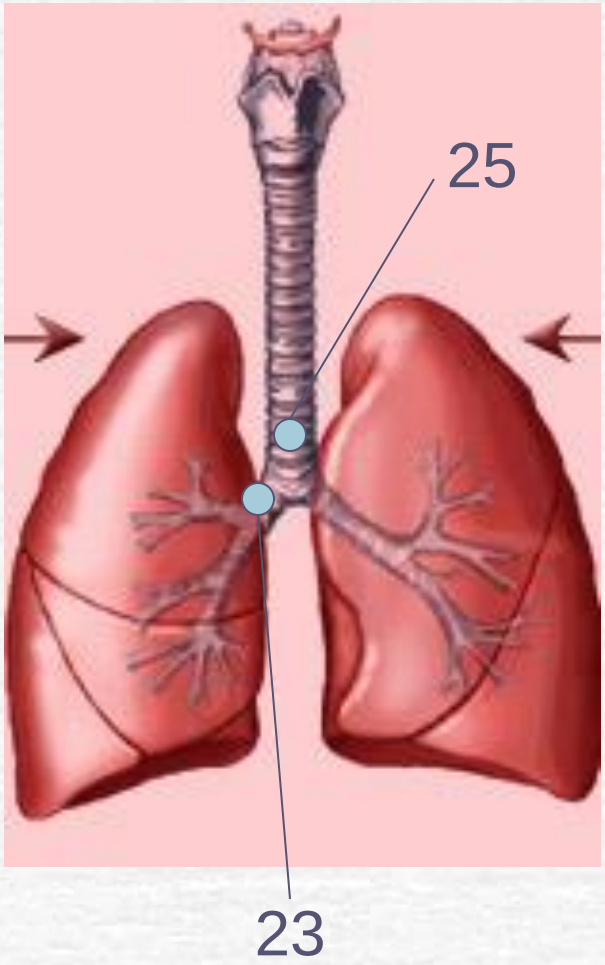
CS Extension Lung
Local

- Code 00
  - In situ; noninvasive; intraepithelial
- Code 10:
  - Tumor confined to 1 lung WITHOUT conditions described in codes 20-80
- Code 11
  - Superficial tumor of any size with invasive component limited to bronchial wall
- Code 20
  - Extension from other parts of lung to main stem bronchus, NOS
  - Tumor involving main stem bronchus greater than or equal to 2 cm from carina
- Code 21
  - Tumor involving main stem bronchus, NOS

CS Extension Lung

Local

- Code 23
  - Tumor confined to hilus
- Code 25
  - Tumor confined to carina
- Code 30
  - Localized, NOS



Lung Tumor Size

- Priority for coding size
  - Path report
  - Op report
  - Scope report
  - Imaging report
- Do not code size of hilar mass UNLESS site = hilum

CS Extension Lung
Regional

- Code 40
  - Atelectasis/obstructive pneumonitis that extends to the hilar region WITHOUT pleural effusion
  - Atelectasis/obstructive pneumonitis, NOS
- Code 45
  - Extension to pleura, visceral or NOS, WITHOUT pleural effusion
  - Extension to pulmonary ligament WITHOUT pleural effusion

CS Extension Lung

Regional

- Code 50
  - Tumor of/involving main stem bronchus less than 2.0 cm from carina
- Code 52
  - (40) + (50)
- Code 53
  - (45) + (50)
- Code 55
  - Atelectasis/obstructive pneumonitis involving entire lung
- Code 56
  - Parietal pericardium or pericardium, NOS
- Code 59
  - Invasion of phrenic nerve

CS Extension Lung
Mixed SS Staging

- Code 60: Direct extension to:
  - Brachial plexus, inferior branches or NOS, from superior sulcus
  - Chest wall
  - Diaphragm
  - Pancoast tumor (superior sulcus syndrome), NOS
  - Parietal pleura
- Code 61
  - Superior sulcus tumor
    - WITH encasement of subclavian vessels
    - WITH unequivocal involvement of superior branches of brachial plexus (C8 or above)
- Code 65
  - Multiple tumor nodules in the SAME lobe; satellite nodules in the SAME lobe

CS Extension Lung

Regional

- Code 70
  - Blood vessels, major: azygos vein, pulmonary artery or vein, superior vena cava
  - Carina from lung/main stem bronchus
  - Compression of esophagus or trachea not specified as direct extension
  - Esophagus
  - Mediastinum, extrapulmonary or NOS
  - Nerves: cervical sympathetic, recurrent laryngeal, vagus
  - Trachea

CS Extension Lung

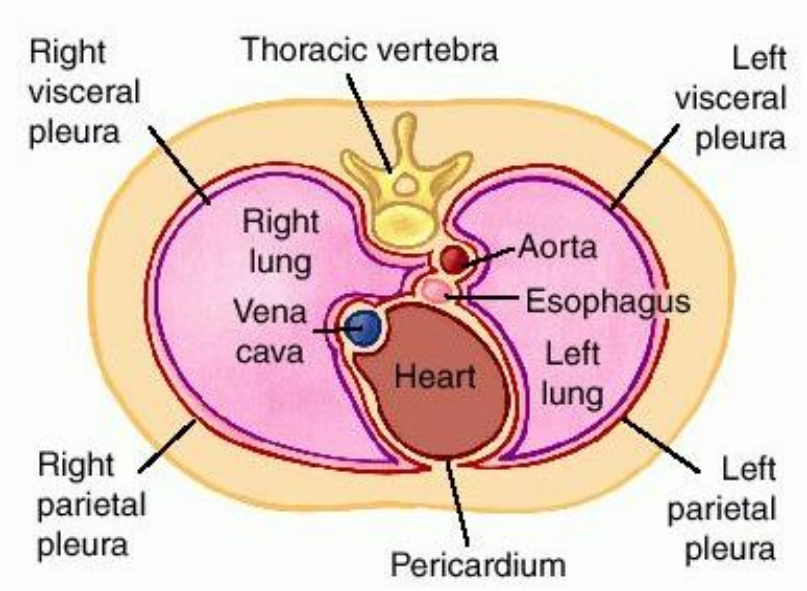
Distant

- Code 71
  - Heart
  - Visceral pericardium
- Code 72
  - Malignant pleural effusion
  - Pleural effusion, NOS
- Code 73
  - Adjacent rib (T3)
- Code 74
  - Aorta (Regional `00)
- Code 75
  - Vertebra
  - Neural foramina
- Code 76
  - Pleural tumor foci separate from direct pleural invasion

CS Extension Lung

Distant

- Code 77
  - Inferior vena cava
- Code 78 (new)
  - (73) plus any of [(61-72) (74-77)]
- Code 79
  - Pericardial effusion, NOS
  - Malignant pericardial effusion
- Code 80
  - Further contiguous extension (except to structures specified in CS Mets at DX)



www.mercksource.com

Code 78

- Direct extension to adjacent rib (73) with:
  - Superior sulcus tumors (61)
  - Multiple tumor masses same lobe (65)
  - Mediastinal organs or structures (70)
  - Heart, visceral pericadium (71)
  - Pleural effusion (72)
  - Aorta (73)
  - Vertebra or neural foramina (75)
  - Discontinuous pleural foci (76)
  - Inferior vena cava (77)

Discontinuos Nodules

- Tumor foci in ipsilateral parietal and visceral pleura from direct pleural invasion = Extension code 76
- Tumors outside parietal pleura in chest wall or diaphragm = Mets code 40

CS Extension Lung

Unknown

- Code 95
  - No evidence of primary tumor – "T0"
- Code 98
  - Tumor proven by presence of malignant cells in sputum or bronchial washings but not visualized by imaging or bronchoscopy
  - Occult carcinoma
- Code 99
  - Unknown extension

TS/Ext Eval

- Code 1 maps to (P) – includes scope biopsies, FNA, surgical observation
- Document farthest extension clinically or pathologically
  - May not be highest eval code
  - Document info most useful for staging
  - Where did Info come from???

CS Lymph Nodes Lung: Notes

1. Code only regional nodes and nodes, NOS, in this data item
2. If at mediastinoscopy/x-ray description is mass, adenopathy, or enlargement of any lymph nodes named in codes 10 or 20, assume at least regional nodes are involved
3. The words “no evidence of spread” or “remaining examination negative” suffice to consider regional lymph nodes negative in absence of any statement about nodes

CS Lymph Nodes Lung: Notes

4. Vocal cord paralysis, superior vena cava obstruction, or compression of trachea or esophagus
   - Use code 20, mediastinal node involvement, if the tumor is peripheral and unrelated to the conditions
   - Code in CS Extension if conditions are caused by involvement of recurrent branch of vagus nerve or by tumor location

CS Lymph Nodes Lung

- Code 00
  - None; no regional lymph node involvement
- Code 10 – N1
  - Regional lymph nodes, ipsilateral
    - Bronchial
    - Hilar
    - Intrapulmonary
    - Peri/parabronchial
- Code 20 – N2
  - Regional lymph nodes, ipsilateral
    - Aortic
    - Carinal
    - Mediastinal
    - Pericardial
    - Peri/paraesophageal
    - Peri/paratracheal
    - Pre- and retrotracheal
    - Pulmonary ligament
    - Subcarinal

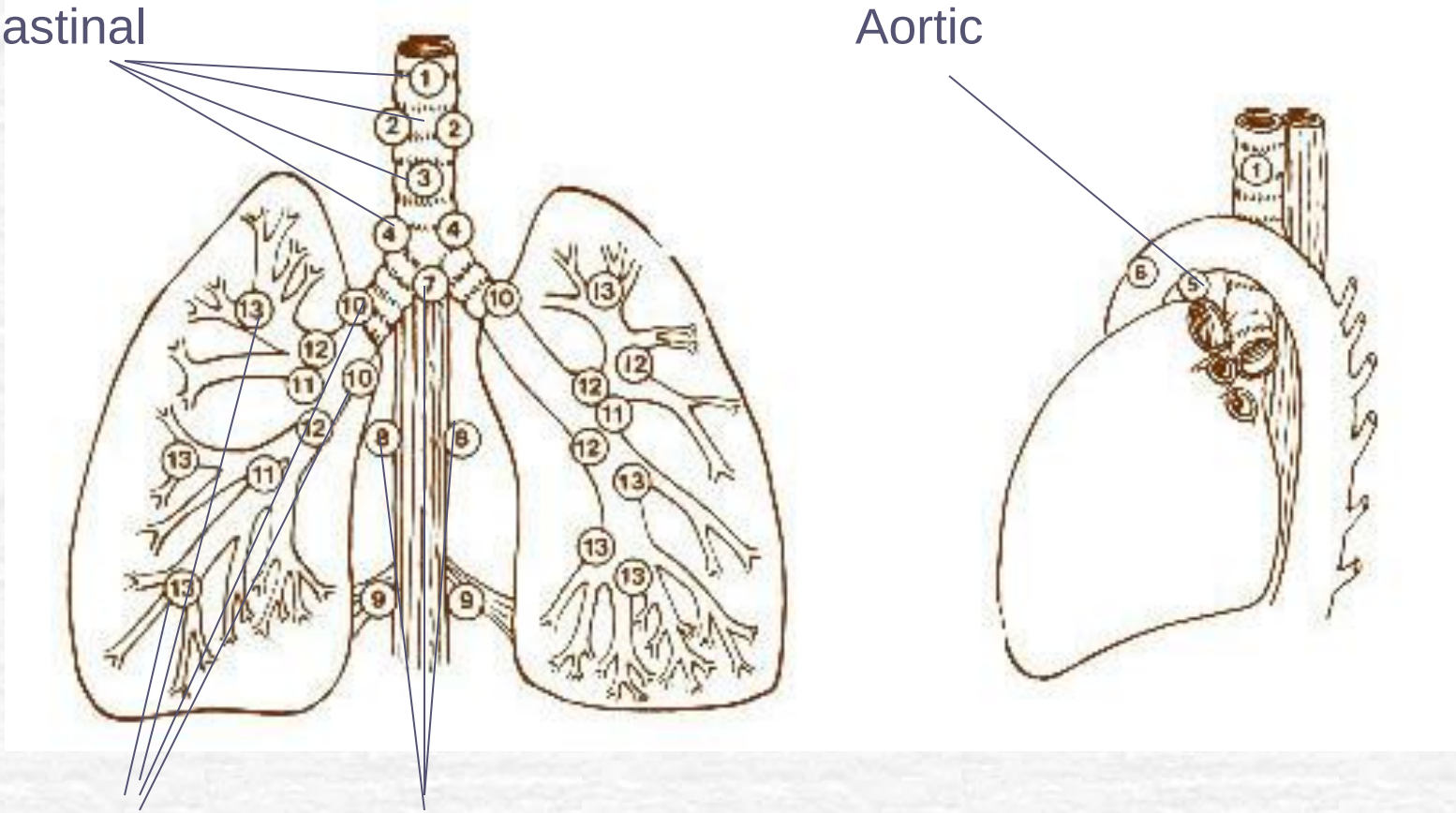
CS Lymph Nodes Lung

- Code 50 – N1
  - Regional lymph nodes, NOS
- Code 80 – N1
  - Lymph nodes, NOS
- Code 99
  - Unknown
- Code 60 – N3
  - Hilar (Contra/bilat)
  - Mediastinal (Contra/bilat)
  - Scalene, ipsilateral or contralateral
  - Supraclavicular, ipsilateral or contralateral

Regional Lymph Nodes

Superior mediastinal

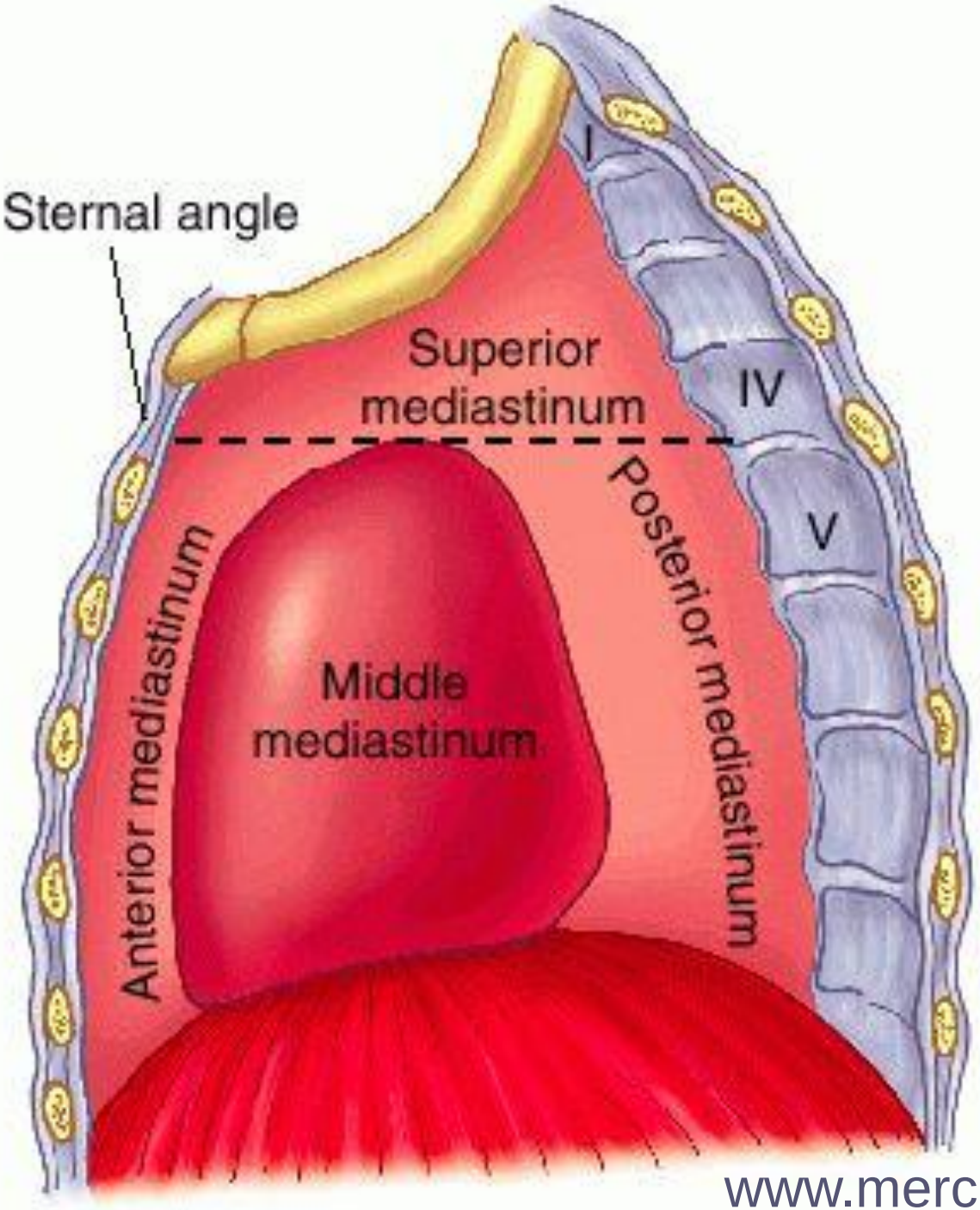
Aortic



Pulmonary

Inferior mediastinal

Image Source: SEER Training Website



Lung = Inaccessible Organ

- Pg 14 description for “None” vs “Unknown”
- N or M = 00 IF
  - Early cancer (T1, T2)
  - No mention of LN or mets in H&P or workup
  - Patient receives “usual” treatment for early cancer

Lymph Node Issues

- If both clinical and pathological assessment of nodes are available, which should be code?
  - FARTHEST extension
- Nodes clinically positive are proven negative by histo?
  - Path takes precedence

LN Synomyms

SAMPLING

LN biopsy, berry picking, sentinel LN, selective dissection

Removal of limited number with no attempt to completely dissect a LN chain

DISSECTION

Lymphadenectomy, radical node dissection, LN stripping

Removal of most or all nodes in LN chain(s) that drain the area around a tumor

CS Mets at DX
Distant

- Code 00
  - No; none
- Code 10
  - Distant lymph nodes including cervical nodes
- Code 35
  - Separate tumor nodule in different lobe, same lung
  - Local `77, Distant `00
- Code 37
  - Extension to:
    - Sternum
    - Skeletal muscle
    - Skin of chest

CS Mets at DX
Distant

- Code 39
  - Extension to:
    - Contralateral lung
    - Contralateral main stem bronchus
  - Separate tumor nodule in contralateral lung
- Code 40
  - Abdominal organs
  - Distant metastasis, NOS
  - Carcinomatosis
- Code 50
  - Distant metastasis + distant nodes
- Code 99
  - Unknown

CS Evaluation Fields

- SEE STANDARD TABLE
  - TS/Extension Evaluation
    - "5" Surgical resection WITH neoadjuvant tx – extension based on clinical evidence = clinical staging
    - "6" Surgical resection WITH neoadjuvant tx – extension based on path specimen = "y" code = path staging
  - Reg Nodes Evaluation
  - Reg LN Positive
  - Reg LN Examined
  - CS Mets Evaluation

First Course Treatment

Lung

Surgical Procedure of Primary Site: Lung

- Site-specific codes
  - FORDS, pages 264
  - SEER PCSM 2004, Appendix C, pages C-393 and C-394

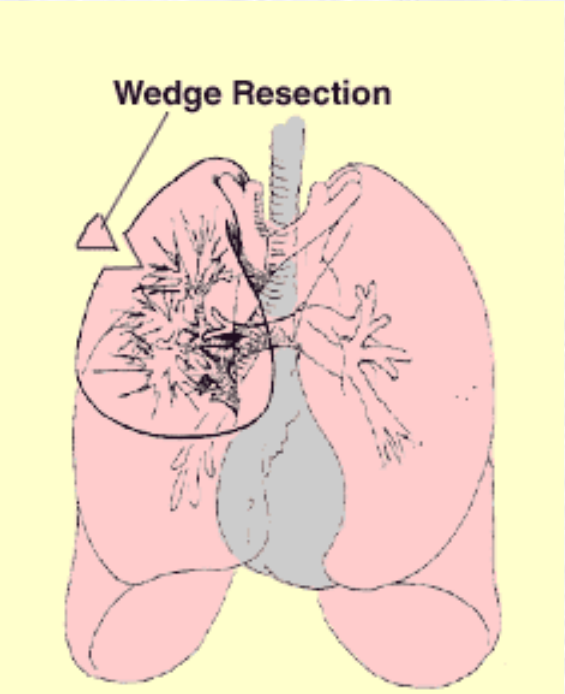
VATS

Surgical Procedure of Primary Site: Lung

- Code 00
  - None
- Codes 12, 13, 15
  - Local tumor destruction with no pathology specimen
  - Includes laser ablation, cryosurgery, electrocautery, fulguration
- Code 19
  - Local tumor destruction or excision, NOS

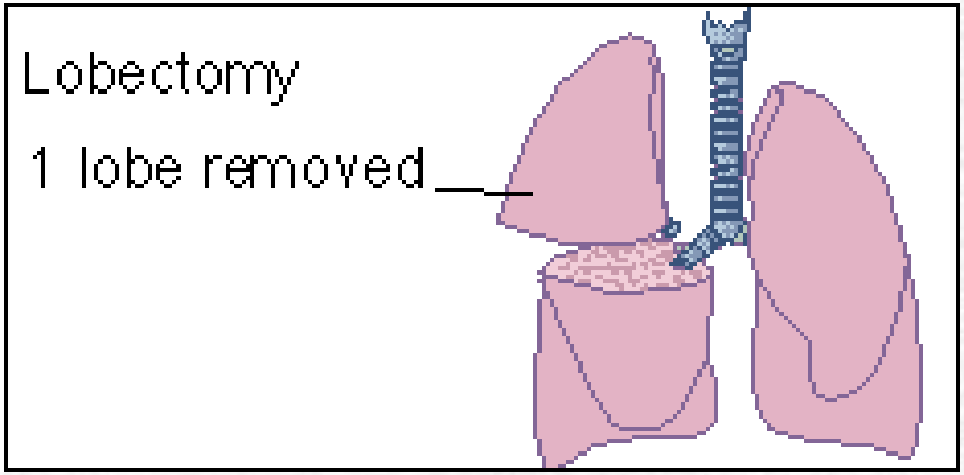
Surgical Procedure of Primary Site: Lung

- Codes 20 – 25
  - Excision or resection of less than one lobe with specimen sent to pathology
  - Includes laser excision, bronchial sleeve resection, wedge resection, segmental resection



Surgical Procedure of Primary Site: Lung

- Codes 30
  - Resection of lobe or bilobectomy, but less than the whole lung



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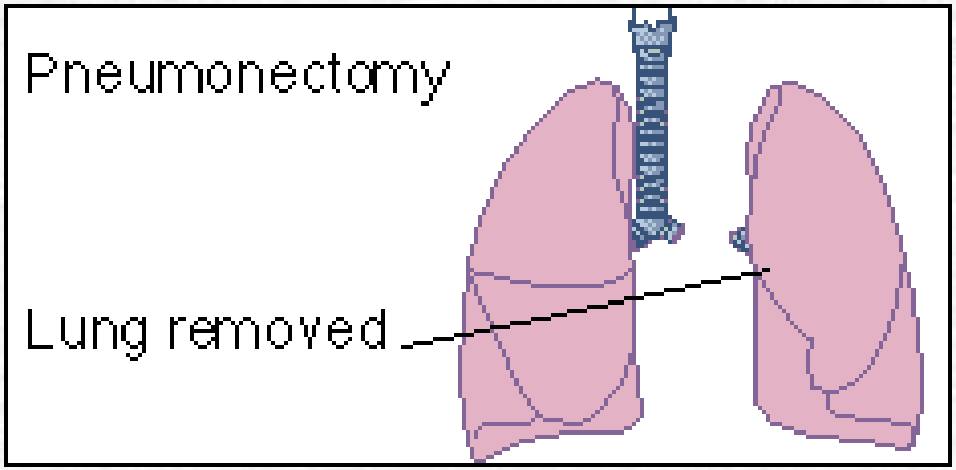
- Code 33
  - Lobectomy with mediastinal lymph node dissection
    - Mediastinal node dissection should also be coded in Scope of Regional Lymph Node Surgery

Surgical Procedure of Primary Site: Lung

- Code 45
  - Lobectomy or bilobectomy extended, NOS
- Code 46
  - WITH chest wall
- Code 47
  - WITH pericardium
- Code 48
  - WITH diaphragm

Surgical Procedure of Primary Site: Lung

- Code 55
  - Pneumonectomy, NOS
  - Includes sleeve, standard, total
- Code 56
  - Radical pneumonectomy: pneumonectomy with mediastinal lymph node dissection
    - Code node dissection in Scope of Regional LN Surgery



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Surgical Procedure of Primary Site: Lung

- Code 65
  - Extended pneumonectomy
- Code 66
  - Extended pneumonectomy plus pleura or diaphragm
- Code 70
  - Extended radical pneumonectomy
  - Radical + other tissue
- Code 80
  - Resection of lung, NOS
- Code 90
  - Surgery, NOS
- Code 99
  - Unknown

Scope of Regional Lymph Node Surgery: Lung

- Code biopsy or aspiration of regional nodes
  - Whether for Diagnosis OR Staging
- Code regional lymph node dissection
  - Code mediastinal lymph node dissection performed with lobectomy or pneumonectomy even though if it is also coded in Surgical Procedure of Primary Site

Scope of Regional Lymph Node Surgery Codes

Code	Label
0	None
1	Biopsy or aspiration of regional LNs, NOS
2	Sentinel LN biopsy
3	Number of regional LNs removed unknown
4	1-3 regional LNs removed
5	4 or more regional LNs removed
6	Sentinel biopsy and code 3, 4, or 5 at same time or timing not stated
7	Sentinel biopsy and code 3, 4, or 5 at different times
9	Unknown

Surgical Procedure/Other Site: Lung

- Record removal of distant lymph nodes or other tissues beyond the primary site
  - Surgical ablation of liver metastasis
  - Resection of cervical lymph node

Surgical Procedure/Other Site Codes

Code	Label
0	None
1	Nonprimary surgical procedure performed
2	Nonprimary surgical procedure to other regional sites
3	Nonprimary surgical procedure to distant lymph nodes
4	Nonprimary surgical procedure to distant site
5	Combination of codes
9	Unknown

Radiation Therapy

- Primary therapy
- Adjuvant therapy
- Consolidation
- Palliative

Chemotherapy

Brand Name	Generic Name
Platinol®	cisplatin
VP-16; VePesid®	etoposide
Paraplatin®	carboplatin
Taxol®	paclitaxel
Taxotere®	docetaxel
Navelbine®	vinorelbine tartrate
Adriamycin®	doxorubicin
Oncovin®	vincristine sulfate
Ifex®	ifosfamide
Gemzar®	gemcitabine hydrochloride

Chemotherapy

CLINICAL TRIALS FOR OTHER REGIMENS	
Cytoxan®	cyclophosphamide
Methotrexate	methotrexate
CeeNu®	lomustine (CCNU)
Hycamtin™	topotecan.hydrochloride
Tarceva®	erlotnib
Velcade	bortezomib
Thalomid	thalidomide
Iressa	geftinib

Other

- Radiofrequency ablation
- GVAX – vaccine
- Jin Fu Kang – herbal from China
- Photodynamic therapy
- Cryotherapy

Follow-Up

- Physical exam
- Chest x-ray q 3-6 mos x 1-2 yrs, then yearly
- CT scan/PET q 6 mos
- Other scans prn