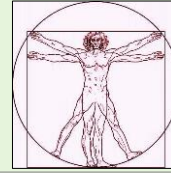


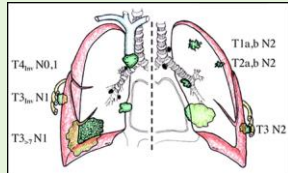
# Neoplasms of the LUNG and PLEURA



2015-2016 FCDS Educational Webcast Series

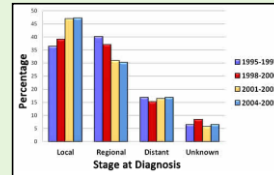
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## 2015 Focus

- Anatomy
- SSS 2000
- MPH Rules
- AJCC TNM



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## Case 1 – Case Vignette

**HISTORY:** 65 year old black male admitted with chest pain, cough, hoarseness and partial vocal cord paralysis. Hx of 1ppd smoker x 50yrs

**CHEST X-RAY:** 7.5cm mass noted in right mainstem bronchus

**CT CHEST:** 7.5cm mass right mainstem bronchus with supraclavicular node.

**CT-GUIDED CORE BX RIGHT LUNG TUMOR MASS:** Poorly differentiated squamous cell carcinoma. p63 and CK5 positive, Napsin and TTF1 neg - c/w squamous cell carcinoma of lung origin. *(positive immunohistochemistry for p63 and CK5 supports the diagnosis of squamous cell carcinoma. Negative immunohistochemistry for Napsin and TTF-1 argues against adenocarcinoma.)*

**ULTRASOUND-GUIDED CORE BX SUPRACLAVICULAR MASS:** positive for metastatic squamous cell carcinoma of pulmonary origin.

**FINAL DX:** Biopsy-proven unresectable squamous cell carcinoma of right lung with vocal cord paralysis and positive supraclavicular lymph node on FNA.

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## Case 1 – QUESTIONS

1. What is the Primary Site/Histology/Grade for this case?
2. What is the cTNM and AJCC cStage/Prognostic Group?
3. What is the pTNM and AJCC pStage/Prognostic Group?
4. Are there any SSFs Required to Assign Stage for this case?
5. What is the SS2000 stage for this case?

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## Case 1 – Answer & Rationale

Practice Case #1			
C34.0 – Rt Main Bronchus 8070/33 – SCC, Grade 3			
Clinical TNM Clinical AJCC Stage Group	cT4N3M0	IIIB	T based on vocal cord paralysis = clinical involvement of recurrent laryngeal nerve, N based on SC node on imaging, MX not allowed, no effusion mentioned
Pathologic TNM Pathologic AJCC Stage Group	pTblankN3Mblank (pTXN3Mblank)	IIIB	Highest T is not bx proven and no resection of primary tumor so pT cannot be assessed, SC node bx = pN3 as highest level node even without resection of primary per Pathologic Classification Section "if a biopsied primary tumor technically cannot be removed...and if the highest T and N categories or the M1 category can be confirmed microscopically, path criteria for staging have been met without total removal of primary." Note: pM0 not allowed...only pM1.
SEER Summary Stage	Distant	7	SC Nodes is Distant, Laryngeal Nerve is regional Direct Extension

**NOTE:** FCDS will reinforce the AJCC Instruction regarding use of "blank" versus "X"  
However, for practical purposes "X" and "blank" will be treated as equal values.

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## Case 2 – Case Vignette

**HISTORY:** 70-year-old female developed right pleural effusion in January of 2015. Thoracentesis with bloody pleural fluid. Cytology showed no tumor cells. Patient was admitted and found to have a right pleural effusion with a pleural based mass and these were biopsied. Preliminary diagnosis between adenocarcinoma or mesothelioma. Pathology will do a TTF-1 and if positive, then more likely this is lung primary. If TTF-1 is negative, then we will have to make sure there is no other primary source of pleural effusion. She is a nonsmoker. Secondary smoke exposure - husband and father.

**CT CHEST/ABD/PELVIS:** nonspecific hilar and mediastinal lymph nodes. Soft tissue mass in RLL lung size 3.5 x 2.5cm. Extensive abnormal right pleural thickening with large right pleural effusion. Abdomen and pelvis – neg

**PROCEDURE:** Mini Thoracotomy with VATS wedge resection RLL lung.

**RLL LUNG WEDGE RESECTION:** moderately differentiated adenocarcinoma typical of lung primary with extensive visceral pleural invasion. TTF1 and CK7 positive and CK20 negative. This type of lung adenocarcinoma is sometimes referred to as “pseudomesotheliomatous” adenocarcinoma.

**FINAL DX:** Adenocarcinoma of lung, right lower lobe, stage IV.

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## Case 2 – QUESTIONS

1. What is the Primary Site/Histology/Grade for this case?
2. What is the cTNM and AJCC cStage/Prognostic Group?
3. What is the pTNM and AJCC pStage/Prognostic Group?
4. Are there any SSFs Required to Assign Stage for this case?
5. What is the SS2000 stage for this case?

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## Case 2 – Answer & Rationale

Practice Case #2		
C34.3 – Rt Lower Lobe Lung 8140/32 – Adeno, Gr 2		
Clinical TNM Clinical AJCC Stage Group	cT2aNXM1a	IV T based on size only, imaging done for N but cannot assess because lymph nodes were mentioned but were nonspecific, M1a with Rt pleural effusion
Pathologic TNM Pathologic AJCC Stage Group	pT2aNblankMblank (pT2aNXMblank)	IV T based on resected specimen and primary tumor extension through the visceral pleura, nodes were not assessed (no bx or resection) = no pathologic assessment of nodes, clinical pleural effusion. Note: pM0 not allowed...only pM1.
SEER Summary Stage	Distant	7 Pleural effusion

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## Case 3 – Case Vignette

**HISTORY:** 61 yr old Vietnamese man, smoker, with lung mass noted on CT. He has had repeated bouts of bronchopneumonia treated with antibiotics. He complains of shortness of breath, 15 pound weight loss, and mental status change. Admitted for workup and start of treatment.

**CT CHEST/ABD/PELVIS:** Large mass obstructing right upper lobe lung measuring at least 6cm with large mediastinal mass 5cm x 6cm in size. Large right-sided pleural effusion noted. Multiple cysts noted in liver.

**MRI BRAIN:** Diffuse 4<sup>th</sup> ventricle involvement with large cerebellar mass

**BRONCHOSCOPY WITH BIOPSY:** right upper lobe lung tumor, biopsy with small cell neuroendocrine (oat cell) carcinoma. CK7 +, Chromogranin + with SY38 positive consistent with small cell carcinoma of lung origin.

**THORACENTESIS:** pleural fluid + for malignant cells

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## Case 3 – QUESTIONS

1. What is the Primary Site/Histology/Grade for this case?
2. What is the cTNM and AJCC cStage/Prognostic Group?
3. What is the pTNM and AJCC pStage/Prognostic Group?
4. Are there any SSFs Required to Assign Stage for this case?
5. What is the SS2000 stage for this case?

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## Case 3 – Answer & Rationale

Practice Case #3			
C34.1 – Rt Upper Lobe Lung 8045/39 – small cell CA			
Clinical TNM Clinical AJCC Stage Group	cT2bN2M1b	IV	T based on size only, N based on imaging with mediastinal “mass” = mediastinal nodes, M based on brain mets
Pathologic TNM Pathologic AJCC Stage Group	pTblankNblankM1b (pTXNXM1b)	IV	pT and pN were not assessed, M1a confirmed by cytology, use pathologic plus clinical to get highest M if highest M not pathologically proven
SEER Summary Stage	Distant	7	Pleural effusion plus brain metastasis

**NOTE:** FCDS will reinforce the AJCC Instruction regarding use of “blank” versus “X”  
However, for practical purposes “X” and “blank” will be treated as equal values.

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## Case 4 – Case Vignette

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HISTORY: 55 yr old white female, non-smoker, with lung mass seen on routine chest x-ray. No clinical symptoms or complaints. Admitted for workup and surgical treatment for left upper lobe lung cancer.

CT CHEST: 3cm tumor in left upper lobe lung no lymphadenopathy.

FNA LEFT LUNG TUMOR: non small cell carcinoma, favor adenocarcinoma

VATS WEDGE RESECTION LUL LUNG WITH NODE SAMPLING: moderately differentiated adenocarcinoma 2.5 x 2.8cm in size, wedge resection, with no involvement of surgical margins. 3 hilar lymph nodes sampled, 1 node with micrometastasis noted on IHC.

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## Case 4 – QUESTIONS

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1. What is the Primary Site/Histology/Grade for this case?
2. What is the cTNM and AJCC cStage/Prognostic Group?
3. What is the pTNM and AJCC pStage/Prognostic Group?
4. Are there any SSFs Required to Assign Stage for this case?
5. What is the SS2000 stage for this case?

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## Case 4 – Answer & Rationale

Practice Case #4			
C34.1 – Lt Upper Lobe Lung 8140/39 – Adeno, NOS			
Clinical TNM Clinical AJCC Stage Group	cT1bN0M0	IA	T based on size only, N based on no nodes on imaging, MX not allowed assign M0 unless otherwise indicated.
Pathologic TNM Pathologic AJCC Stage Group	pT1bN0Mblank (pT2bN0(i+)Mblank)	IA	T based on size noted in resected specimen, micromets are not counted as + LN – see Pathologic Classification Section noting = N0. The micromets NO sub-designations (NO(i+), etc.) are not included in the N definitions for lung or on the staging form for lung and cannot be entered into lung cases without failing EDITS – so they are not allowed, Note: pM0 not allowed...only pM1.
SEER Summary Stage	Local	1	Nothing in SS2000 regarding micromets for lymph nodes – so treat as node negative until otherwise instructed.

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However, for practical purposes “X” and “blank” will be treated as equal values.

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## Case 5 – Case Vignette

**HISTORY:** 59 year old white male firefighter with recently diagnosed unresectable mesothelioma of lung. Seen in ER then admitted with chest pain and shortness of breath prior to starting chemotherapy. Overall patient status is quite poor. Patient was discharged to hospice.

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## Case 5 – QUESTIONS

1. What is the Primary Site/Histology/Grade for this case?
2. What is the cTNM and AJCC cStage/Prognostic Group?
3. What is the pTNM and AJCC pStage/Prognostic Group?
4. Are there any SSFs Required to Assign Stage for this case?
5. What is the SS2000 stage for this case?

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## Case 5 – Answer & Rationale

Practice Case #5			
C38.4 – Pleura, NOS			
9050/39 – Mesothelioma, NOS			
Clinical TNM Clinical AJCC Stage Group	cT4NblankM0 (cT4NXM0)	IV	T based on unresectable tumor, no imaging to assess N status, MX not allowed and no mention of distant mets
Pathologic TNM Pathologic AJCC Stage Group	pTblankNblankMblank (pTXNXMblank)	99	Cannot assess any p – no resection
SEER Summary Stage	Unstaged	9	Stage cannot be assessed

**NOTE:** FCDS will reinforce the AJCC Instruction regarding use of “blank” versus “X”  
However, for practical purposes “X” and “blank” will be treated as equal values.

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## Wrap Up – Final Q&A

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