# TNM "Grab Bag" of Staging Exercises

## AJCC 7th Edition

NORTHERN REGION-CCRA

STAGING SYMPOSIUM

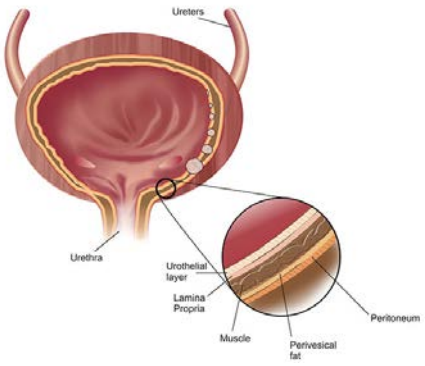
SEPTEMBER 20, 2017

## Outline

- Case Reviews
  - Answers and Rationale
    - Bladder
    - Prostate
    - Lung
    - Colorectum
    - Breast
    - Melanoma
    - Ovary
  - And a few tips along the way



# Case # 1 Bladder



## Case # 1 Bladder - Scenario Highlights

- PTA 1/10/16 TURBT positive for invasive urothelial ca invading the muscularis propria
- PTA 1/23/16 CT following TURBT revealed residual tumor; no mention of adenopathy; no further documentation of extension
- 1/30/16 to 4/22/16 - 4 cycles neoadjuvant therapy
- 5/13/16 Surgical consult - MD notes on "his read" of original CT PTA there is ~2cm external iliac LN identified
- 6/3/16 Staging CT post neoadjuvant therapy: Decrease in bladder wall thickening & size of LN met, and no bone mets
- 6/5/16 Operative findings radical cystoprostatectomy with extended bilat LN dissection: matted portion of nodes along common iliac vein and artery
- 6/5/16 Pathology: focal residual in situ ca only, no invasive ca, 03/11 LNs positive



## Clinical T - Answer & Rationale

**cT2**

- PTA TURBT - large bladder c/w invasive carcinoma
- PTA Pathology - invasive urothelial ca to muscularis propria
- PTA CT scan following TURBT - residual bladder mass. No further documentation of extension
- M.P. invasion greatest extent of disease documented prior to treatment
- Subcategory of "a" or "b" cannot be determined on a TURBT
- T2a, T2b are only designated for pathologic stage

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT2 | | | | |



## Clinical N - Answer & Rationale

**cN0**

- No adenopathy was noted on PTA CT scan per consulting surgeon
  - "original read did not notice any adenopathy"
- Clinical stage based on evidence acquired before start of first course Rx
  - Consulting surgeon *retrospective* read of original CT *after* neoadjuvant therapy indicating a ~2cm enlarged LN must be *excluded*
  - Repeat CT performed after neoadjuvant chemo must be excluded
  - Clinical stage cannot be assigned in hindsight

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT2 | cN0 | | | |

## Clinical M - Answer & Rationale

**cM0**

- No mention of signs or symptoms of mets on exam
- PTA 1/23/16 CT made no mention of distant metastatic disease
- Assign cM0
  - Only physical exam required to assign cM0
  - If signs or symptoms then further study appropriate
  - Clinical stage composition can include cM0, cM1 or pM1

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| **Clinical** | **cT2** | **cN0** | **cM0** | | |



## Clinical Stage Group

Clinical Stage Group **= II**

- AJCC stage composition cT2 cN0 cM0 = Stage II
  - Stage Group II includes cT2 [nos] category
  - Valid Stage Group can be assigned
- Descriptor is 0
  - No clinical descriptor applies to this case

➢ Tip - Bladder stage table:
- Stage Group II includes cT2 [NOS]Clinical
- Stage Group III includes cT3 & cT4 [NOS]

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| **Clinical** | **cT2** | **cN0** | **cM0** | **2** | **0** |



## pT - Answer & Rationale

**ypTis**

- Surgery performed s/p neoadjuvant treatment = ypTNM
- Cystectomy/bladder revealed only focal carcinoma in situ = ypTis
- ypTNM stage includes:
  - ycTNM
  - Surgical observations
  - Pathologic resected specimen
- **Note: Clinical information *always excluded* from ypT and ypN**

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| **Pathologic** | **pTis** | | | | 4 |

## pN - Answer & Rationale

**ypN3**

- 03/11 Lymph nodes positive for metastasis:
  - 1 positive left pelvic LN
  - 1 positive right obturator LN } =N2
    *however*
  - 1 positive **common iliac LN = N3**
- All involved lymph nodes in this case are regional for TNM
  - Nodal drainage location of positive regional lymph nodes i.e., *primary or secondary*, changes the N category

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | pTis | pN3 | | | 4 |



## Pathologic M - Answer & Rationale

**cM0**

- Patient was cM0 before neoadjuvant therapy
- "M" s/p neoadjuvant treatment based on "M" status at diagnosis
  - whether cM0, cM1, or pM1
- Assign cM0
- "yp" does not apply to M

➢ Tip: If M1 before NeoRX, remains M1 for ypTNM *even if mets no longer detected*

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | pTis | pN3 | cM0 | | 4 |



## Pathologic Stage Group

Path Stage Group **= IV**

- AJCC stage composition (yp)Tis (yp)N3 cM0 = Stage IV
- Any involvement of lymph nodes w/wo distant mets is Stage IV in bladder
- Patient received neoadjuvant therapy prior to surgery
- Descriptor = 4
  - Indicates path stage is post neoadjuvant therapy
- Registry software does not have ability to record "yp" prefix

Important to code Descriptor for ypTNM

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | pTis | pN3 | cM0 | 4 | 4 |

## Completed Staging

- TNM stage as recorded in registry database:

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT2 | cN0 | cM0 | 2 | 0 |
| Pathologic | pTis | pN3 | cM0 | 4 | 4 |
| SS2000 | Code 7- Distant (LNs) | | | | |

- SS2000:
  - Common iliac LNs are regional in TNM but distant in SS2000
  - ➢ SS2000 and TNM do not always match
  - Don't try to convert one to the other
  - Always refer to the Summary Stage online manual

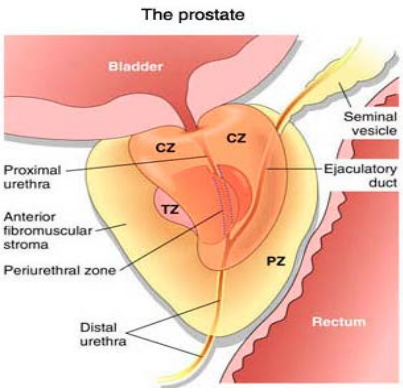


## Key Points or Tips

- Observe timeframe of information when assigning stage
  - Clinical or Pathologic
  - No Re-Do's - retrospective or hindsight
  - Once staging timeframe passed, cannot go back
- Subcategories "a" or "b" for T2/T3 only used for pathologic stage
  - Needs partial cystectomy at least
  - Can't be determined on TURBT
- Stage Group II includes T2 [nos]
- Clinical Stage information is excluded from ypTNM
- "M" s/p neoadjuvant treatment based on "M" status at diagnosis
  - cM0, cM1, or pM1



# Case # 2 Prostate



## Case #2 Prostate - Scenario Highlights

- 1/28/16 Newly dx'd T2b Prostate ca
  - 1/10/16 PTA TRUS Prostate Bx: Adenoca, Gleason 4+5; PTA PSA 9.1 in November
  - 1/23/16 PTA CT and bone scans negative for LAD or distant mets
- 1/28/16 (repeat)Rectal: prostate with induration throughout right lobe; no inguinal LAD; IMP: T2b prostate adenocarcinoma
- 2/7/16 MRI Pelvis: Focal abnormality within right base and mid gland; extension to right seminal vesicles. No enlarged LNs seen
- 2/19/16 Prostatectomy with extended pelvic LN dissection. No obvious tumor extension to pelvic LNs. Potential extraprostatic disease extension in region of right base
- 2/19/16 Prostatectomy Path: Adenoca, Gleason 4+3, Score 7, with greater than focal extraprostatic extension. Seminal vesicles neg. 0/28 LNs positive



## Clinical T - Answer & Rationale

**cT2b**

- cT2b per PTA MD exam & again per consulting MD on repeat DRE
  - Induration throughout right lobe –tumor is apparent
  - Involves more than one one-half of lobe, but not both lobes
- Why not cT3b - MRI showed extension to right seminal vesicles?
  - No MD documentation supporting imaging findings
  - MD stage was cT2b - his stage does not corroborate imaging
- Use of *imaging* has not been *proven* to be *consistently* helpful for "cT"

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT2b | | | | |



## Clinical N - Answer & Rationale

**cN0**

- PE 1/23/16 revealed no palpable inguinal adenopathy
- PTA 1/23/16 CT scan showed no evidence of lymphadenopathy
- Assign cN0
  - Imaging is not required to assign cN0
  - cN0 category may be based on physician judgement and nomograms
  - Although Imaging not reliably helpful for cT - can be used in eval of cN/cM

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT2b | cN0 | | | |

## Clinical N - Answer & Rationale

**cN0** continued

- Tips:
  - Prostate cancer nomograms are prediction tools
    - MDs use nomograms which indicate probability of nodal involvement
    - Takes into account T category/DRE, PSA, Gleason
    - MD would likely document concern for cN1 or order further studies
    - Imaging most often used in T3, T4, or case with potential/probability of N1
  - Any nodal involvement in Prostate = Stage 4 disease

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT2b | cN0 | | | |



## Clinical M - Answer & Rationale

**cM0**

- No mention signs or symptoms of mets on exam
- PTA 1/23/16 CT and bone scans showed no evidence of mets
- The 2/7/16 MRI showed no metastasis
- Assign cM0
  - Only physical exam required to assign cM0
  - If signs or symptoms then further study would likely be done
  - Clinical stage composition can include cM0, cM1 or pM1

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT2b | cN0 | cM0 | | |



## Clinical Stage Group

Clinical Stage Group = **IIB**

- AJCC stage composition cT2b cN0 cM0 = Stage IIB
  - with PSA of 9.1
  - with Gleason score 9
- Stage IIB includes:
  - Any T1-T2 (including T2a, T2b, T2c)
  - Gleason score 8 or greater
- Descriptor is 0
  - No clinical descriptor applies to this case

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT2b | cN0 | cM0 | 2B | 0 |

## pT - Answer & Rationale

**pT3a**

- Adenocarcinoma Gleason 4+3=7 with extraprostatic tumor extension
  - Extraprostatic extension greater than focal
    - Prostate capsular circumference penetrated by carcinoma measured 1cm
  - pT3 disease subcategorized
    - pT3a – extraprostatic extension
    - pT3b – seminal vesicles
- No pathologic seminal vesicle invasion was identified
  - **MRI findings were disproved!**

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| **Pathologic** | **pT3a** | | | | |



## pN & pM - Answer & Rationale

**pN0**

- 28 regional lymph nodes dissected
  - 0/8 external iliac
  - 0/6 obturator
  - 0/3 hypogastric
  - 0/7 common iliac
  - 0/4 presacral
- All lymph nodes pathologically negative = pN0

**cM0**

- No clinical evidence of distant mets
- CT, Bone Scan, MRI all negative for distant mets
- In absence of path proven mets, Clinical M used in pathologic stage
- Assign cM0

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| **Pathologic** | **pT3a** | **pN0** | **cM0** | | |



## Pathologic Stage Group

Path Stage Group = III

- AJCC stage composition pT3a pN0 cM0 = Stage III
- Descriptor is 0
  - No pathologic stage descriptor applies to this case

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| **Pathologic** | **pT3a** | **pN0** | **cM0** | **3** | **0** |

## Completed Staging

- TNM stage as recorded in registry database:

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT2b | cN0 | cM0 | 2B | 0 |
| Pathologic | pT3a | pN0 | cM0 | 3 | 0 |
| SS2000 | Code 2 –Regional by Direct Extension | | | | |

- SS2000:
  - Code 2 includes extraprostatic extension and extracapsular extension whether unilateral, bilateral or not stated



## Key Points or Tips

- Use caution with imaging reports in prostate cancer for cT disease extension
  - Look for MD documentation and interpretation of imaging report
  - Need supporting documentation by MD confirming he/she concurred
  - Use only if MD used in staging
- Gleason score may be different for clinical or pathologic stage
  - Observe timeframes used for staging
  - Clinical: use biopsy or TURP, only information known at that time
  - Pathologic: all information used, highest of Bx/TURP/Prostatectomy



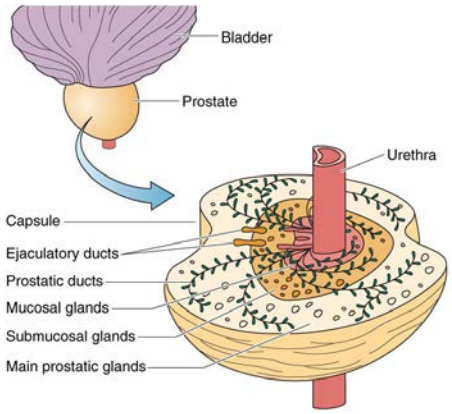
## Pop Quiz

- What would the path stage be if no lymph nodes removed on prostatectomy?

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT2b | cN0 | cM0 | 2B | 0 |
| Pathologic | pT3a | pNX | cM0 | 99 | 0 |

- pN requires microscopic exam of at least one LN
- Must assign pNx if no LNs removed
- For prostate if not T4 or M1 with NX, Stage group cannot be assigned

# Case # 3 Prostate




28

## Case #3 Prostate - Scenario Highlights

- PTA 3/14/16 TRUS bx pos(+) for Adenoca; Gleason 4+5; PSA 23.2. MD stage of cT2b
- 3/24/16 Patient began Lupron and Bicalutamid
- 4/12/16 DRE at this facility after bx; 30 gram prostate with nodularity and induration extending throughout left lobe. IMP: T2b prostate ca
- 5/2/16 MRI: left prostate mass with extracapsular extension. No LAD by size criteria. No clear seminal vesicle invasion. No osseous lesions
- 5/20/16 Radical prostatectomy w/LN dissection: No obvious LN mets observed surgically and no obvious extraprosatatic disease
- 5/20/16 Prostatectomy Path: Adenoca with positive bilateral invasion seminal vesicles No Gleason grade assigned. Per path report no significant treatment effect from hormone therapy. Negative margins



## Clinical T - Answer & Rationale

**cT2b**

- PTA dx T2b prostate ca. Repeat DRE per consulting MD confirmed cT2b.
  - Nodularity/Induration throughout left lobe
  - Tumor involves more than one one-half of lobe, but not both lobes
- Preop MRI w/extracapsular extension but no seminal vesicle invasion
  - Imaging findings **not** used to assign clinical T category for this case
  - No supporting documentation by MD confirming he concurred with findings
  - MD stage of cT2b takes priority
- DRE is the critical component for cT staging
  - Physical exam and DRE; what was palpable

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| **Clinical** | **cT2b** | | | | |

## Clinical N - Answer & Rationale

**cN0**

- No documentation regional lymph nodes were clinically suspected
- Preop MRI was done after start of first course treatment with hormone ablation, however, it does confirm lack of suspicious nodes
- Assign cN0
  - Imaging is not required to assign cN0
  - cN category based on physician judgement and nomograms
  - Registrar can assign cN0 if no mention of concern for LN mets
  - MD would likely document if concern for cN1 disease

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT2b | cN0 | | | |



## Clinical M - Answer & Rationale

**cM0**

- H&P were performed with no mention of signs or symptoms of distant mets.
- Assign cM0
  - Only physical exam required to assign cM0
  - If signs or symptoms of mets then further study would likely have been done
  - Clinical stage composition can include cM0, cM1 or pM1

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT3b | cN0 | cM0 | | |



## Clinical Stage Group

Clinical Stage Group = **IIB**

- AJCC stage composition cT2b cN0 cM0 = Stage IIB
  - with PSA of 23.2ng/ml (>20)
  - with Gleason score of 9
- Stage IIB includes any T1-T2 (including T2a, T2b etc.)
- Descriptor is 0
  - No clinical descriptor applies to this case

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT2b | cN0 | cM0 | 2B | 0 |

## pT - Answer & Rationale

**pT3b**

- Adenoca of prostate with invasion of seminal vesicles bilaterally
- Gleason grade was not determined
  - Pathologist noted patient received neoadjuvant therapy with no treatment effect
  - Pathologist staged this as pT3b.

➢ NOTE: Per NCCN Guidelines hormone therapy prior to surgery for prostate cancer is NOT considered neoadjuvant therapy.

- Only neoadjuvant therapy delivered as part of a clinical trial can be designated as neoadjuvant for prostate

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| **Pathologic** | **pT3b** | | | | |



## pN - Answer & Rationale

**pN1**

- 26 regional lymph nodes resected
  - 0/3 external iliac
  - **2**/13 obturator
  - **1**/4 hypogastric
  - 0/6 presacral
- 4 distant lymph nodes resected
  - 0/4 common iliac- negative
- 3 lymph nodes were pathologically positive = pN1
  - Pathologist staged this a pN1

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| **Pathologic** | **pT3b** | **pN1** | | | |



## Pathologic M - Answer & Rationale

**cM0**

- No clinical evidence of distant mets
- In absence of path proven mets, Clinical M status is used in path stage composition
  - Pathologic stage composition can include cM0, cM1, pM1
- cM0 only requires history & physical exam
  - No symptoms or signs of metastasis is cM0
  - Imaging is not required

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| **Pathologic** | **pT3b** | **pN1** | **cM0** | | |

## Pathologic Stage Group

Path Stage Group = **IV**

- AJCC stage composition pT3a pN1 cM0 = Stage IV

Descriptor = 0

- Androgen Deprivation Therapy (ADT) with Lupron prior to surgery does not qualify as neoadjuvant therapy per NCCN Guidelines
- Neoadjuvant descriptor of 4 should not be coded in this case

➢ Tip: Any lymph node involvement in prostate equals Stage IV

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| **Pathologic** | **pT3b** | **pN1** | **cM0** | **4** | **0** |



## Completed Staging

- TNM stage as recorded in registry database:

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| **Clinical** | **cT2b** | **cN0** | **cM0** | **2B** | **0** |
| **Pathologic** | **pT3b** | **pN1** | **cM0** | **4** | **0** |
| **SS2000** | **Code 4 –Regional, Direct Extension & Regional LNs** | | | | |

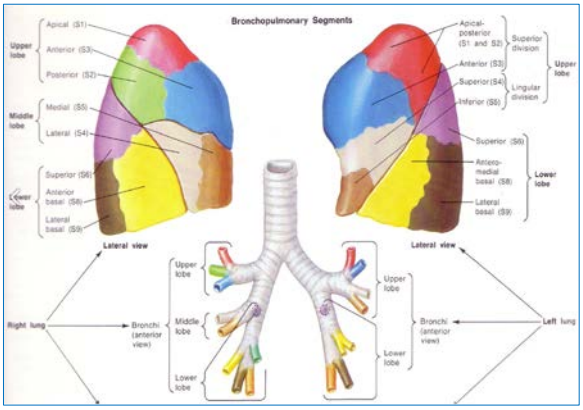
- SS2000:
  - Extraprostatic extension and bilateral seminal vesicle invasion, plus
  - Involvement of regional lymph nodes



## Key Points or Tips

- There is no neoadjuvant therapy for prostate cancer outside of clinical trials
- Lupron prior to prostate surgery is not considered neoadjuvant treatment
- Pathology report stated neoadjuvant therapy
  - Clinical info in path report can be helpful to fill in missing info sometimes, however pathologist usually does not have complete clinical info
  - **Therefore, Must analyze information in context with other/complete case information**
  - In this case info was misleading if taken out of context

# Case # 4 Lung






## Case #4 Lung - Scenario Highlights

- 2/4/16 PE with bilateral supraclavicular LAD and left neck mass concerning for malignancy. FNA Left supraclavicular mass PD non small cell carcinoma
- 2/4/16 CT Neck: bilateral supraclavicular LAD; two small rt apical lung nodules
- 2/13/16 Tumor Board: Extensive LAD w/unidentifiable primary lung cancer
- 2/13/16 CT Chest: indeterminate right apical pulmonary nodules and diffuse mediastinal, axillary, paratracheal, lower cervical LAD, and multiple foci bone mets
- 2/20/15 PET: Diffuse LAD in mediastinum, let axilla, lower cervical regions c/w malignancy, most likely lymphoma. Multiple foci within bones c/w mets
- 2/22/16 Left level V neck nodes excisional bx: PD adenocarcinoma, c/w lung primary
- Patient treated with chemo and radiation



## Clinical T - Answer & Rationale

**cT0**

- Patient presented with extensive LAD w/unidentifiable primary lung carcinoma.
- Small apical pulmonary nodules were never stated to be malignant or suspicious
- This is not TX “cannot be assessed”. No primary lung tumor was able to be identified.
- When adequate workup fails to identify primary tumor, assign cT0 - No evidence of primary tumor

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT0 | | | | |

## Clinical N - Answer & Rationale

**cN3**

- FNA of supraclavicular LN was positive for malignancy, and
- Excision/dissection of LNs from deep supraclavicular area was positive for PD adenocarcinoma c/w lung primary
- N3 = metastasis in contralateral mediastinal, contralateral hilar, ipsilateral or contralateral scalene, or supraclavicular lymph nodes

➢ TIP: FNA or Exc Bx with microscopic exam during diagnostic workup always = cN

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT0 | cN3 | | | |



## Clinical M - Answer & Rationale

**cM1b**

- Imaging confirms metastatic disease
  - Left axillary nodes involved
  - Skeletal bone mets
- cM1b = Distant mets *in Extrathoracic organ(s)*
  - Did you update your manual with errata?

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT0 | cN3 | cM1b | | |



## Clinical Stage Group

Clinical Stage Group = **IV**

- AJCC stage composition cT0 cN3 cM1b = Stage IV
  - Any T with Any N and M1b = Stage IV
  - ➢ **Any T includes T0**
- Descriptor is 0
  - No clinical descriptor applies to this case

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT0 | cN3 | cM1b | 4 | 0 |

## pT, pN, pM & Stage Group - Answer & Rationale

- Patient did not have resection of the primary tumor
- Rules for pathologic stage classification were not met
- cM1b cannot be used in path stage since rules for path stage not met
- All categories, T, N, M blank
- Stage group cannot be blank in registry software. Code to 99
- Descriptor is 0

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | blank | blank | blank | 99 | 0 |



## Completed Staging

- TNM stage as recorded in registry database:

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT0 | cN3 | cM1B | 4 | 0 |
| Pathologic | | | | 99 | 0 |
| SS2000 | Code 7 – Distant | | | | |

  - pT, pN, pM are left blank, only stage group completed
- SS2000:
  - Bone mets and distant axillary lymph node mets coded as distant disease
  - Regardless of whether primary tumor was identified or whether regional LNs were involved



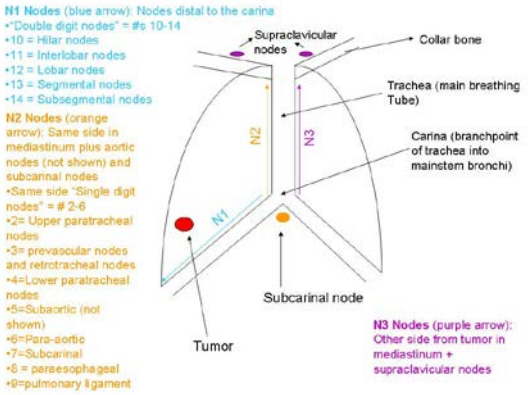
## Key Points or Tips Bonus content

- When adequate workup fails to identify a primary tumor, assign cT0
- Lung nodules (NOS) cannot be assumed to malignant. There must be documentation indicating they are felt to be tumor nodules or represent involvement
- Post treatment CT scan several months later showed no change in these apical nodules supporting these are not malignant

➢ **TIP: cTx has 2 meanings:**

1.) Lung tumor is apparent but TS or features describing lung mass extension is non-specific, and unable to define a T category = cannot be assessed/cTX
2.) Occult tumor. Only evidence is positive sputum or brushings (one enough-both not required) AND there are no LN mets and no distant mets= cTx cN0 cM0 Stage OC

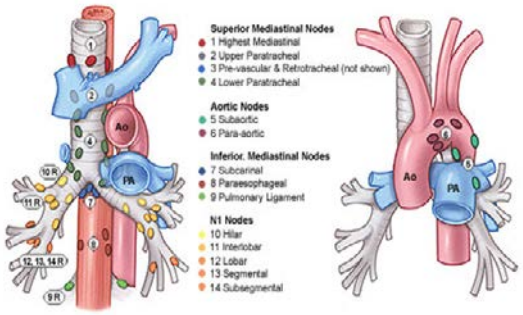
## N1-3 Breakpoints that change stage




- Simplified LN diagram
- "An introduction to Lung Cancer Dr. Weiss @ http://cancergrace.org



# Case # 5 Lung






## Case #5 Lung - Scenario Highlights

- 6/7/16 PTA CT: RUL mass completely obstructs RUL - extends along upper lobe bronchi to mediastinum and through hilum c/w malignancy. Enlarged mediastinal LNs c/w local tumor spread
- 6/12/16 Bronchoscopy: Near obstructing mass occluding take off to RUL. No endobronchial lesion in RML, RLL; Normal LLL and LUL; all brushing/washings negative
- 6/12/16 Lung Bx: positive for small cell carcinoma; IHC most c/w SCLC. Bronchial washing negative for malignancy
- 6/14/15 Brain MRI negative for mets
- 6/14/16 CT Abd/pel negative for mets
- Discharge Summary: Limited stage small cell carcinoma
- Treatment is radiation

## Clinical T - Answer & Rationale

**cT4**

- 9.1cm obstructing RUL mass extending along upper lobe bronchi to the mediastinum = T4
- Histology small cell carcinoma
- **Small cell lung cancer is also staged with AJCC TNM**
  - Histologies
    - **Non-Small Cell**
      - Adenocarcinoma
      - Bronchioalveolar (BAC)
      - Squamous Cell carcinoma
      - Large cell carcinoma
    - **Small Cell Carcinoma**
    - **Carcinoid**

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| **Clinical** | **cT4** | | | | |



## Clinical N - Answer & Rationale

**cN2**

- Physical exam negative for adenopathy in any palpable areas
- Enlarged mediastinal lymph nodes were clinically involved by imaging c/w local tumor spread
- No other suspicious adenopathy identified on imaging
- Historically "limited stage" includes lung tumors with regional node mets

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| **Clinical** | **cT4** | **cN2** | | | |



## Clinical M - Answer & Rationale

**cM0**

- H&P negative for signs or symptoms of metastatic disease
- Brain MRI, CT Ab/pel both negative for distant mets.
- Note, historically "limited stage" meant there was no *distant* mets.
- Assign cM0
  - Only physical exam required to assign cM0
  - If signs or symptoms then further study appropriate
  - Clinical stage composition can include cM0, cM1 or pM1

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| **Clinical** | **cT4** | **cN2** | **cM0** | | |

## Clinical Stage Group

Clinical Stage Group = **IIIB**

- AJCC staging composition cT3 cN2 cM0 = Stage IIIB
- Descriptor is 0
  - No clinical descriptor applies to this case

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT4 | cN2 | cM0 | 3B | 0 |



## SCLC "Limited" or "Extensive" stage

- Many MDs still use – 2 stage system for treatment "triage"

**Limited Disease Stage**

- Cancer encompassed within single radiation field
- Tumor & LNs same lung, same side
- Treatable with goal of therapy cure
- RX: Chemotherapy & Radiation

**Extensive Disease Stage**

- Cancer cannot be encompassed within a single radiation field
- Tumor throughout lung or on both sides
- Not typically curable but treatable
- RX: Chemotherapy alone

- Cannot use to assign TNM
  - Variable levels of involvement with LD or ED
  - But, information may provide clues to support TNM assignment
    - Extension or Treatment plan



## pT, pN, pM & Stage Group - Answer & Rationale

- Patient did not have surgical resection of the primary site
- Rules for classification for pathologic stage were not met
- All categories, T, N, M and Stage group would be blank
- Stage group cannot be blank in registry software. Code to 99
- Descriptor is 0

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | blank | blank | blank | 99 | 0 |

## Completed Staging

- TNM stage as recorded in registry database:

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT4 | cN2 | cM0 | 3B | 0 |
| Pathologic | | | | 99 | 0 |
| SS2000 | Code 4 – Regional Direct Extension & Regional LNs | | | | |

- SS2000:
  - Clinically tumor extended to mediastinum
  - Regional lymph node metastases
  - No distant mets
  - Note: "Limited Stage" does not equal localized disease



## Pop Quiz

- Scenario
  - DX bx lung mass squamous cell ca
  - FNA hilar lymph node during clinical workup positive for mets =cN1
  - Lobectomy with LN dissection - All LNs resected were negative for pN0

➢ What is the pathologic N? **pN1**

- pN criteria met
  - Surgical resection of tumor - pT
  - Microscopic exam of at least one - pN
- Remember to include positive biopsies of nodes from clinical workup
  - Add biopsied nodes to nodes resected cN1 + pN0 = pN1
  - An FNA counts- No reason to doubt FNA diagnosis
  - Does not have to be complete excision of LN



## Pop Quiz – Alternate Reality bonus slide

- Scenario
  - Clin: Bx peripheral lung mass (squamous cell ca); FNA hilar lymph node neg =cN0
  - Path: Wedge resection RUL – No further LNs resected

➢ What is the pathologic N? **pN0**

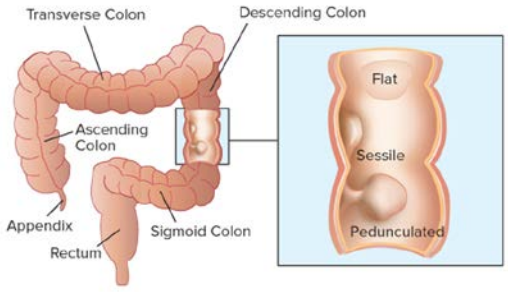
- pN criteria met
  - Surgical resection of tumor - pT
  - Microscopic exam of at least one - pN
- Remember to include positive biopsies of nodes from clinical workup
  - Add biopsied nodes to nodes resected. pT + **Microscopically proven cN0** = pN0
  - An FNA counts- No reason to doubt FNA diagnosis
  - Does not have to be complete excision of LN

## Key Points or Tips

- Small Cell Lung Cancers staged with AJCC TNM lung chapter same as other histologies
- Some MDs still use 2-stage system LD & ED for SCLC treatment planning
  - Does not play a role in TNM stage
- If microscopic exam of LNs during clinical workup – remember to use in path stage when applicable
  - Add biopsied nodes to nodes resected
  - Does not have to be complete excision of LN
  - Microscopic exam can be cytologic or tissue
  - Equally valid for staging



# Case # 6 Colon




62

## Case #6 Colon - Scenario Highlights

- 3/19/16 Patient symptomatic with stomach cramps, diarrhea and blood per rectum
- 3/19/16 Colonoscopy revealed 4 polyps removed with snare cautery; one polyp in sigmoid positive for adenoca invading submucosa with positive margins
- 5/16/16 Endoscopic US: residual polyp/mass; no internal iliac or peri-rectal adenopathy
- 5/24/16 Sigmoid colectomy; no residual carcinoma; 0/29 regional LNs positive

## Clinical T - Answer & Rationale

**cT1**

- Symptoms lead to colonoscopy which identified colon polyps
- Pathology revealed adenocarcinoma arising in a polyp involving the submucosa with positive margins
- Invasion of submucosa is cT1
- Clinically patient was felt to have residual disease after the colonoscopy by endoscopic ultrasound

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT1 | | | | |



## cN & cM - Answer & Rationale

**cN0**

- Diagnostic workup with endoscopic ultrasound No internal iliac or perirectal adenopathy.
- Assign cN0

**cM0**

- 5/7/16 physical exam note documented the physician's assessment there was no evidence of metastases.
- Assign cM0

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT1 | cN0 | cM0 | | |



## Clinical Stage Group

Clinical Stage Group = **I**

- AJCC stage composition cT1 cN0 cM0 = Stage I
- Descriptor is 0
  - No clinical descriptor applies to this case

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT1 | cN0 | M0 | 1 | 0 |

## pT - Answer & Rationale

**pT1**

- No residual carcinoma was identified on the colectomy specimen
- Pathologic stage includes information from dx workup, plus operative observation/findings, plus surgical path resected specimen
- cT1 invasion of submucosa plus no residual adenocarcinoma at colectomy are combined = **p**T1

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | pT1 | | | | |



## pN & pM - Answer & Rationale

**pN0**

- 29 regional lymph nodes were resected and proven negative on microscopic review
- Assign pN0

**cM0**

- Physical exam negative for signs or symptoms of mets
- Assign cM0
- In absence of pathologic proven mets, clinical M status is used
- Pathologic stage "M" can include cM0, cM1, pM1

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | pT1 | cN0 | cM0 | | |



## Pathologic Stage Group

Path Stage Group = **1**

- AJCC stage composition pT1 pN0 cM0 = Stage I
- Descriptor is 0
  - No pathologic stage descriptor applies to this case

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | pT1 | pN0 | cM0 | 1 | 0 |

## Completed Staging

- TNM stage as recorded in registry database:

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT1 | cN0 | cM0 | 1 | 0 |
| Pathologic | pT1 | pN0 | cM0 | 1 | 0 |
| SS2000 | Code 1- Localized Disease | | | | |

- SS2000:
  - Invasion of submucosa = localized disease



## cN Colon Tip

**cN**

- Must have number estimate for nodal involvement to assign
- If cannot establish =cNX
- Look for imaging clues to number(s)
- MD estimate of number
- May not "downstage" unknown number to lowest N category



## pN Colon Tip

Regional LNs for colon

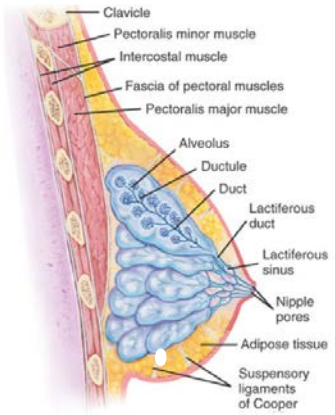
- Sometimes path report does not state specific name/location
  - Pericolic
  - ileocolic
  - Cecal
  - anterior, inferior, right, left, middle, etc
- Path report only describes **"Mesenteric"** lymph nodes NOS
- **Any mesenteric lymph nodes in resected specimen are *regional nodes***

## Key Points or Tips

- Pathologic stage includes:
  - Information from dx workup, plus operative findings, plus surgical path resected specimen
- When there is no residual tumor on surgical specimen, pT can be assigned based on clinical tumor size or extension*
  - cT1 +
  - No pertinent operative findings +
  - No residual tumor on surgical specimen = **pT1**
  - *Provided patient did not receive neoadjuvant therapy
- cN: Number of involved nodes needed to assign- otherwise = cNX
- pN: Any mesenteric node in resection specimen is a “regional” node



# Case # 7 Breast






## Case #7 Breast - Scenario Highlights

- Patient presented with left pelvic pain
- 6/19/16 CT revealed hypodensity pancreatic head with periaortic & retroperitoneal LAD
- 6/27/16 BX of peripancreatic LN histologically c/w lobular breast adenocarcinoma
- 7/15/16 PE: Nodular breasts bilaterally, but no palpable masses. No submandibular, cervical, supraclavicular, infraclavicular or axillary LAD 7/15/16: Patient was started on Femara
- 7/19/16 MRI Breasts; suspicious masses at 6:00 (10x6x6mm) & 7:00 (7x6x9mm) in right breast. Suspicious level 1 axillary LAD, and 2 right internal mammary LN’s seen
- 7/19/16 CT Ch/Ab/Pel: Diffuse skeletal sclerosis concerning for bone mets
- 7/26/16 Rt Breast US & Core bx: 17mm mass at 7 o’clock biopsied; 19mm second mass at 6 o’clock (not biopsied); abnormal axillary LN also biopsied
- 8/15/16 MD note confirms mets to bone and LNs (axillary, mesenteric,retroperitoneal LNs)

## Hormone started during clinical workup

- Can we use the diagnostic findings that were determined after the patient started Femara?

Per clarification from CAnswer Forum…..

- Although Femara was started during clinical workup, subsequent imaging and biopsy are still considered part of clinical staging and should be used to assign cT and cN
- A few days of hormone therapy would not effect the clinical stage of this tumor
- MD notes indicate the plan was to start hormone therapy while work-up was ongoing due to obvious metastatic disease



## Clinical T - Answer & Rationale

**cT1c**

- Two tumors in right breast identified on imaging-both suspicious
  - 1 at 6:00, 10 x 6 x 6 mm by MRI, 19 mm by US (not biopsied)
  - 1 at 7:00, 7 x 6 x 9 mm by MRI, 17 mm by US biopsied
- Only one mass biopsied - not necessary to biopsy each
  - In light of obvious mets, only one tumor biopsied to provide histologic confirmation
- All tumors were confined to breast - Use largest tumor size documented
  - Regardless of difference in tumor size among imaging reports
  - Unless physician specifies imaging that is most accurate

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT1c | | | | 3 |



## Clinical N - Answer & Rationale

**cN1**

- 7/19/16 MRI showed suspicious level 1 axillary LN
- 7/26/16 US/BX of axillary LN positive for metastatic carcinoma
- Assign cN1
- Note: Internal mammary LNs also *seen* on MRI, however, these were not stated to be suspicious or involved

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT1c | cN1 | | | |

## Clinical M - Answer & Rationale

**pM1**

- Clinical M category can include cM0 cM1 or pM1
- Peripancreatic LN biopsy confirmed distant mets = pM1
- MD confirmed bone mets in his exam note of 8/15/16 = cM1
- M is always assigned based on the highest assessment method
  - (biopsy vs clinical)
- pM1 takes priority over cM1

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT1c | cN1 | pM1 | | |



## Clinical Stage Group

Clinical Stage Group = IV

- AJCC stage composition cT1c(m) cN1 pM1 = Stage IV
- Descriptor is **3**
  - There are two distinct breast masses one at 7:00 and another at 6:00
  - Although both tumors were not biopsied, multiple tumors were identified on imaging.
  - Biopsy of all tumors identified not required to code this as multiple tumors (m)

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT1c | cN1 | pM1 | 4 | 3 |



## Pathologic T - Answer & Rationale

**pT** blank

- pT cannot be assigned in the absence of a surgical resection
- The treatment plan did not include resection of the primary site

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | blank | | | | |

## Pathologic Stage N - Answer & Rationale

**pN** blank

- pN cannot be assigned in the absence of resection of the primary tumor
- While patient had a core biopsy of a single regional lymph node during clinical workup, in the absence of primary tumor resection, this remains a clinical procedure and is not eligible for pN

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | blank | blank | | | |



## Pathologic M - Answer & Rationale

**pM1**

- Patient has pathologic proven distant mets
- Patient underwent a peripancreatic lymph node FNA during clinical workup
- An FNA of visceral lesion is adequate for pathologic evaluation of distant mets.

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | blank | blank | pM1 | | |



## Pathologic Stage Group

Pathologic Stage Group = **4**

- pM1 disease qualifies case for pathologic stage w/o tumor resection
- Descriptor is 0
  - No descriptor applies to the path stage

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | Blank | Blank | pM1 | 4 | 0 |

## Completed Staging

- TNM stage as recorded in registry database:

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT1c | cN1 | pM1 | 4 | 3 |
| Pathologic | | | pM1 | 4 | 0 |
| SS2000 | Code 7-Distant | | | | |

- SS2000:
  - Patient has distant metastases to mesenteric and retroperitoneal lymph nodes and bone mets.
  - The presence of distant mets is always coded as distant stage regardless of primary tumor involvement or whether regional lymph nodes were involved



## Pop Quiz

- Wouldn't the correct AJCC path stage be cT1c cN1 pM1 Stage 4, without blanks? YES!
- When you have pM1 w/o primary site resection, clinical T & N appropriate

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT1c | cN1 | pM1 | 4 | 3 |
| Pathologic | cT1c | cN1 | pM1 | 4 | 0 |

**See Chapter 1, table 1.7, page 11**

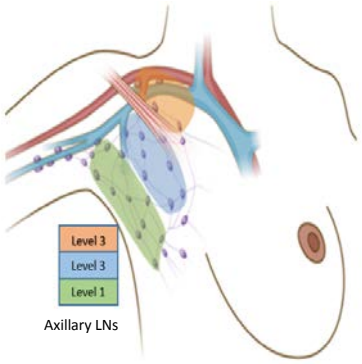
- Blanks are a registry software compromise in this situation
- Valid AJCC cT or cN categories appropriate for inclusion in pathologic stage composition not yet in the registry allowable values list
- Will be for 8th edition



## Key Points or Tips

- If multiple tumors present- biopsy of all tumors not required to assign stage
  - "T" category based on documented size of largest tumor
  - Use "m" descriptor for multiple primary tumors in a single site
- A few days of hormonal therapy not likely to effect clinical stage of tumor
  - Not considered neoadjuvant treatment
- M always assigned based on highest assessment method
  - pM1 takes priority over cM1
- In absence of primary tumor resection, evidence of path proven mets - pM1- qualifies case for pathologic stage

# Case # 8 Breast




88

## Case #8 Breast - Scenario Highlights

- 5/10/16 Palpable 4cm firm moveable mass in right axilla. Bilteral breasts exam neg for any palpable abnormality
- 5/12/16 Biopsy of right axillary lymph node positive for ductal carcinoma
- 5/16/16 Bilateral MRI negative for any parenchymal breast masses but confirmed suspicious axillary mass
- 6/16/16 PET confirms suspicious enlarged R axillary LN 3.8cm; no evidence of any breast mass bilaterally; No evidence malignancy in abdomen, pelvis or thorax.
- 6/25/16 Treatment plan: neoadjuvant ACT followed by XRT to right axilla, then Arimidex
- 10/14/16 Right axillary lymph node dissection revealed 2/8 lymph nodes positive for metastatic ductal carcinoma with treatment effect



## Clinical T - Answer & Rationale

**cT0**

- Physical exam and further diagnostic workup with imaging did not reveal evidence of a primary breast mass
- MD comments this is an occult breast cancer
- Assign cT0 – No evidence of primary tumor

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| **Clinical** | **cT0** | | | | |

## Clinical N - Answer & Rationale

**cN1**

- Palpable suspicious axillary mass
- Imaging confirmed suspicious axillary mass
- Right axillary lymph node biopsy positive for metastatic ductal ca
- Assign cN1

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT0 | cN1 | | | |



## Clinical M - Answer & Rationale

**cM0**

- Physical exam was negative for signs or symptoms of mets
- Assign cM0
- PET scan confirmed no evidence of distant mets
- In absence of pathologic proven mets, cM0
  - Clinical stage "M" can include cM0, cM1, pM1

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT0 | cN1 | cM0 | | |



## Clinical Stage Group

Clinical Stage Group = IIA

- AJCC stage composition cT0 cN1 cM0 = Stage IIA
- Descriptor is 0
  - No clinical descriptor applies to this case

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT0 | cN1 | cM0 | 2A | 0 |

## Pathologic T - Answer & Rationale

**pT** blank

- No primary tumor was ever identified
- No resection of the primary site could be done to meet the rules for a "yp" pathologic stage

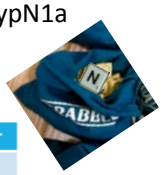
| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | blank | | | | |



## Pathologic N - Answer & Rationale

**pN** blank

- Axillary lymph node dissection performed s/p neoadjuvant therapy
- 2 of 8 LNs positive for metastatic ductal ca - equivalent to a ypN1a
- However, no primary tumor ever identified - Occult breast cancer
- No resection of the primary site meeting rules for pathologic stage
- Without a ypT (or a pM1) no path stage - no home - for our ypN1a


| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | Blank | Blank | | | |



## Pathologic N - Orphan

## Pathologic M - Answer & Rationale

**M** blank

- The rules for pathologic stage classification for this case were not met
- No resection of the primary site could be done

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | blank | blank | blank | | |



## Pathologic Stage Group

Pathologic Stage Group = **None**

- No pathologic stage group exists for this case
- However, registry database requires non blank stage group value
- Assign code 99
- Descriptor is 0
  - No pathologic descriptor applies

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | Blank | Blank | Blank | 99 | 0 |



## Completed Staging

- TNM stage as recorded in registry database:

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cT0 | cN1 | M0 | 2A | 0 |
| Pathologic | | | | 99 | |
| SS2000 | Code 3 Regional Lymph nodes only | | | | |

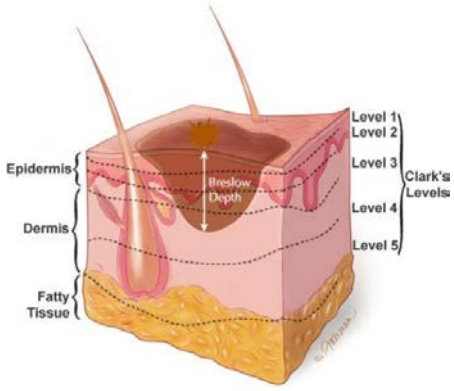
- SS2000:
  - No primary tumor identified.
  - Evidence of axillary regional lymph node mets
  - No distant mets

## Key Points or Tips

- LN dissection alone without resection of primary tumor not eligible for pathologic stage
- ypN1a information can be used by the MD
  - Assess response to treatment
  - Plan further treatment
  - Patient Prognosis
- ➢ If no pT or ypT, the pN or ypN info can't be used – no pathologic stage
- Exception: when there is also pM1 disease



# Case # 9 Melanoma






## Case #9 Melanoma - Scenario Highlights

- PTA Bx positive malignant melanoma right arm deltoid area – Path report not available
- 5/5/16 Surg Cons PE: 3x2cm dark pigmented lesion Rt deltoid; soft tissue mass 4cm medially from biopsy site; no palpable axillary, epitrochelar, cervical, or supraclav LAD
- PTA PET/CT 4/29/16 info per MD note: soft tissue mass right upper arm etiology uncertain with no evidence lymphadenopathy or distant mets
- 5/15/16 Wide Excision right arm melanoma lesion. Excision of soft tissue mass. Attempted sentinel lymph node procedure but no nodes identified
- 5/15/16 Pathology: Malignant melanoma Breslow 1.9mm, Clark's level IV. No surface ulceration, mitotic index 4/mm2, no LVI, no satellites; Soft tissue mass (+) in-transit mets or node completely replaced by metastatic melanoma; Final margins negative

## Clinical T - Answer & Rationale

**cT** blank

- No initial biopsy information is available
- No information on tumor thickness, ulceration or mitoses
- Referring physician would have info but records did not include
- Can't use X - that would indicate MD did not examine patient, or did a biopsy but there were no findings from the specimen
- Registrar had no access to information = cT blank

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | blank | | | | |



## Clinical N - Answer & Rationale

**cN2c**

- Patient had no palpable lymphadenopathy
- Presence of a nearby soft tissue mass 4cm from primary melanoma lesion is potential in-transit mets
- Apparent lesions or mass near primary melanoma site may indicate melanoma satellites or in-transit mets
- In-transit mets without nodal mets = cN2c

➢ Tip: Distance from primary lesion defines terminology
  - Within 2 cm from primary lesion = tumor satellite
  - Greater than 2 cm from primary lesion = in transit mets

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | Blank | cN2c | | | |



## Clinical M - Answer & Rationale

**cM0**

- MD exam does not mention any signs or symptoms of mets
- Assign cM0
- PET/CT also negative for evidence of distant mets

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | blank | cN2c | cM0 | | |

## Clinical Stage Group

Clinical Stage Group = III

- AJCC stage composition Any T with ≥N1 cM0 = Stage **III**
  - Any T in this case includes cT blank
  - Case is able to be stage grouped due to cN2c disease
- Descriptor is 0
  - No clinical descriptor applies to this case

➢ Caution:
- cT *blank* in other stage compositions may not equal a valid stage group
- May equal unknown stage/99

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | blank | cN2c | cM0 | 3 | 0 |



## Pathologic T - Answer & Rationale

**pT2a**
- 1.9mm Breslow tumor thickness = pT2
- No surface ulceration = subcategory "a"
- Mitoses in this case plays no role (only a factor with T1)
- Clarks level plays no role TNM Stage

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | pT2a | | | | |



## Pathologic N - Answer & Rationale

**pN2c**
- Confirmed in-transit metastasis in soft tissue mass
- Dye injection did not identify sentinel nodes
- pN2c = evidence of in transit mets but negative regional LNs

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | pT2a | pN2c | | | |

## Pathologic M - Answer & Rationale

**cM0**

- In absence of pathologic proven mets, clinical M status is used in pathologic stage composition
- PE and PET/CT negative for signs or symptoms of mets
- Assign cM0

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | pT2a | pN2c | cM0 | | |



## Pathologic Stage Group

Pathologic Stage Group = IIIB

- AJCC stage composition pT2a pN2c cM0 = Stage IIIB
- Descriptor is 0
  - No descriptor applies to this case

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | pT2a | pN2c | cM0 | 3B | 0 |



## Completed Staging

- TNM stage as recorded in registry database:

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | Blank | cN2c | cM0 | 3 | 0 |
| Pathologic | pT2a | pN2c | cM0 | 3B | 0 |
| SS2000 | Code 3- Regional lymph node mets | | | | |

- SS2000:
  - Code 3 Regional lymph nodes
  - Includes In-transit metastasis (satellite nodules > 2cm from primary tumor)

## Key Points or Tips

Melanoma does not always conform to AJCC staging rules

- Many times partial and/or missing info
  - No info on Breslow, mitotic rate, ulceration
  - Pathology reports are often incomplete
  - Best reports from dermatopathologists
- Can't always assign AJCC staging
  - Collect info that is available
  - May be missing biopsy information
  - Don't use surgical resection for clinical staging
- Refer to Melanoma Critical Clarifications on AJCC Web site

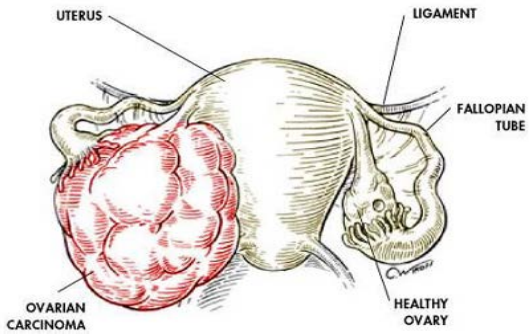


## Blank vs X

- When case meets rules for stage classification use X appropriately
- Clinical staging - story of patient diagnosis and workup
  - cTX = Physician did not examine patient, inadequate biopsy
  - cT blank = registrar had no access to information
  - cT blank = No diagnosis or workup – stage classification rules not met
- Pathologic staging – pt's story through surgical treatment
  - pTX = someone lost specimen between OR and path dept
  - pT blank = pt didn't have surgical treatment
  - pT blank = registrar had no access to information
- X is not appropriate when information is missing or unknown



# Case # 10 Ovary



## Case #10 Ovary - Scenario Highlights

- Patient presents with lower abdominal & pelvic pain. Palpable right pelvic mass on exam; H&P otherwise neg. CA-125 negative
- US: large complex mass right adnexa originating from right ovary suspicious for ovarian neoplasm; No LAD noted.
- TAH/BSO/total omentectomy/tumor debulking: Operative findings of omental implants 4-5 cm and peritoneal implants 1-2 cm. Regional LNs on inspection did not look involved. All visible implants debulked.
- Surgical path: PD Serous cystadenocarcinoma right ovary. Omental implant biopsies positive for metastatic serous cystadenocarcinoma. Multiple foci of metastatic serous adenoca in peritoneum. Peritoneal wash negative for malignant cells.



## Clinical T, N & M - Answer & Rationale

**cTX**

- Exam/US show left adnexal/ovarian mass; ovarian cancer suspected
- Findings insufficient to assess/define the "T" category

**cN0**

- There are no suspicious LNs on ultrasound

**cM0**

- H&P otherwise negative with no signs or symptoms of distant mets

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cTX | cN0 | cM0 | | |



## Clinical Stage Group

Clinical Stage Group = Unknown

- AJCC stage composition cTX cN0 cM0 cannot be stage grouped
- Stage is unknown
- Stage group cannot be blank in registry software. Code to 99
- Descriptor is 0
  - No clinical descriptor applies to this case

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cTX | cN0 | cM0 | 99 | 0 |

## Pop Quiz

- Q: I often see on operative reports "pre-op stage likely 3C ovarian cancer".
- Can I use this to include in the clinical staging? **YES**

➢ Per CAnswer Forum:
"if the physician provides the clinical stage it can be documented in the cancer registry database. There should be microscopic confirmation [at some point], but in these cases you don't want to lose that physician documentation"

**http://cancer bulletin.facs.org/forums/forum/ajcc-tnm-staging/education-developed-by-partner- organizations/naaccr-webinars/63400-clinical-classification-for-ovary**

- Caution: Stage IIIC = cT3c cN0 cM0
  Any cT cN1 cM0

If you don't know which - best option is:
cT___cN___ cM___ Stage 3C



## Pathologic T - Answer & Rationale

**pT3c**

- There were macroscopic omental implants 3-4 cm intraoperatively
- pT3c = peritoneal mets **beyond pelvis more than 2cm** and/or regional lymph node mets
- Omental implants = peritoneal implants outside pelvis
  - **The omentum is in the abdomen not the pelvis**
- Bx of omental implants positive for metastatic serous cystadenoca

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | pT3c | | | | |



## Pathologic N & M - Answer & Rationale

**pNX**

- Intraoperatively lymph nodes did not appear involved
- No lymph nodes were resected
- pN requires microscopic exam of at least one lymph node

**cM0**

- No signs of distant mets
- In absence of path proven mets, Clinical M used in pathologic stage

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | pT3C | pNX | cM0 | | |

## Pathologic Stage Group

Pathologic Stage Group = IIIC

- AJCC stage composition pT3c pNX cM0 = Stage IIIC

➢ TIP: Per CAnswer Forum: Any pT3c combined with NX/N0/N1 would equal Stage IIIC

- Add pNX to your AJCC manual
- Only applies to pT3c tumors

- Descriptor is 0
  - No descriptor applies to this case

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Pathologic | pT3c | pNX | cM0 | 3C | 0 |



## Completed Staging

- TNM stage as recorded in registry database:

| | T | N | M | Stage | Descriptor |
|---|---|---|---|---|---|
| Clinical | cTX | cN0 | cM0 | 99 | 0 |
| Pathologic | pT3c | pNX | cM0 | 3C | 0 |
| SS2000 | Code 7 – Distant mets | | | | |

- SS2000:
  - Extension/mets (contiguous or discontinuous) to omentum is code 7 - Distant
  - Note: TNM and Summary Stage do not match



## Ovary Tip

➢ Intraperitoneal organs and tumor implants

- Intraperitoneal organ(s) completely covered and supported by peritoneum
  - Tumor seeding on peritoneal surface of intraperitoneal organ(s) reflected in "T" category, not "M"
  - Example:
    - Liver is outside the pelvis and intraperitoneal; entirely covered with peritoneum
    - Tumor implants on peritoneal liver surface =T3a/T3b/T3c
    - Mets in liver parenchyma (inside) the organ = M1

Resource:
**https://goldilocksthedoc.com/2012/09/10/intraperitoneal-organs-and-retroperitoneal-organs/**

## Key Points or Tips

Bonus content

- Clinical stage for ovarian ca not often assigned with values other than X
  - **http://cancerbulletin.facs.org/forums/forum/ajcc-tnm-staging/education-developed-by-partner-organizations/seer-educate-webinars/56678-education-needed-for-ovarian-clinical-t**
  - See also NCRA Cancer Case Studies #18 Ovary
- If MD provided clinical preop stage - Record It
- pT3c with NX can be stage grouped to 3C
  - Clarified in CAnswer Forum by Donna Gress, RHIT, CTR
  - Add note to your staging manual
- Caution- disease spread- is it T or M?



SEER*Educate material used with permission


FRED HUTCH
CURES START HERE

Funded by
Fred Hutchinson Cancer Research Center
NCI Contract Number HHSN261201000029C

SEER

Visit **SEER*Educate** at https://educate.fredhutch.org/

# Thank You

## Questions?

Donna M. Hansen, CTR
Auditor/Education Training Coordinator
California Cancer Registry
916-731-2543
**Email: dhansen@ccr.ca.gov**