STAGE DATA:
USING THE AJCC CANCER STAGING MANUAL 7TH ED. AND SUMMARY STAGE 2000

Jim Hofferkamp, CTR (jhofferkam@naaccr.org)
Shannon Vann, CTR (svann@naaccr.org)

Q&A

- Please submit all questions concerning webinar content through the Q&A panel.

Reminder:

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

FABULOUS PRIZES





STAGING UPDATE

2014	2015	2016
CoC facilities • CS required • Directly coded TNM required, if available	**CoC facilities** • CS required • Directly coded TNM required • Directly coded SEER Summary Stage required	**CoC facilities** • Directly coded TNM required • Directly coded SEER Summary Stage required
Non-CoC facilities • CS required	**Non-CoC facilities** • CS required • Directly coded SEER Summary Stage required	**Non-CoC facilities** • Directly coded TNM required • Directly coded SEER Summary Stage required

4

AJCC FUNDAMENTALS

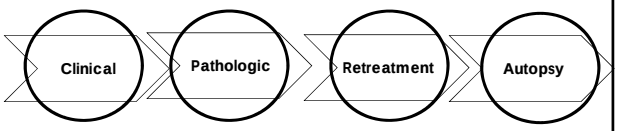
Part I Chapter 1 AJCC Cancer Staging Manual
Pages 3-14

5

TNM

- TNM records the 3 significant events in the life history of a cancer:
  - ***T*** Local Tumor Growth
    - TX, Tis, T0, T1, T2, T3, T4
  - ***N*** Spread to Regional Lymph Nodes
    - NX, N0, N1, N2, N3
  - ***M*** Distant Metastasis
    - MX, M0, M1

EVALUATION METHODS



- TNM is re-evaluated at 4 Key Points
  - cTNM--Clinical Examination
  - pTNM--Following Surgical Removal
  - rTNM--Restaging after Pretreatment or Recurrence
  - aTNM--Autopsy Classification

CLINICAL AND PATHOLOGIC STAGE

Clinical Stage
Pretreatment Stage

Pathologic Stage
Postsurgical Stage

Patient is diagnosed With cancer.

Patient has definitive surgery for cancer cancer.

Clinical and Pathologic stage reflect the stage at diagnosis. They reflect what the physician thought the stage was at different points in time

STAGING CRITERIA

- Each chapter has certain "rules for classification" that must be met in order to assign a clinical or pathologic stage.
  - Colon/rectum clinical staging is based on medical history, physical exam, sigmoid or colonoscopy, and imaging to demonstrate the presence of extracolonic metastasis.
  - Prostate pathologic staging-must have a prostatectomy including regional lymph nodes or a biopsy that pathologically confirms a T3 or T4.

CLINICAL T

- Clinical ***T*** is generally assessed based on information from physical exam, imaging, biopsies or surgical exploration.
  - For lung a 2cm lesion in the left upper lobe of the lung identified by CT would indicate a clinical T1

PATHOLOGIC T

- Pathologic T is generally assigned based on resection of the primary tumor sufficient to evaluate the highest pT category.
  - For Breast an excisional biopsy of the primary tumor is sufficient to assign a pathologic T
  - For Prostate a total prostatectomy with seminal vesiculectomy is required to evaluate the highest T value.
    - Exception…

CONFIRMING THE HIGHEST T VALUE

- A colonoscopy shows a tumor in the rectum. A biopsy confirms adenocarcinoma and that the tumor originated in the prostate.
  - Direct invasion from the prostate to the rectum is a T4.
  - Since we have microscopic confirmation that the tumor invaded into the rectum, we can assign this a pT4.

T CATEGORY

- Patient presents with a suspicious breast mass. The physician felt an enlarged axillary lymph node that was suspicious for metastasis. Imaging shows a 2.3 cm mass confined to the breast. The patient returned for modified radical mastectomy with axillary node dissection. Pathology showed a 1.9 cm ductal carcinoma and 03/24 positive lymph nodes.
  - What information can we use for the clinical T?
  - What information can we use for the pathologic T?

NAACCR

CLINICAL N

- Clinical ***N*** is generally assigned based on physical exam, imaging or surgical exploration.
  - For lung malignant appearing hilar lymphadenopathy would be an indicator of a clinical N1

NAACCR

QUESTION

- How is the clinical N stage assigned for prostate primaries if the MD did not stage the case and there was no imaging documented to assess the regional lymph nodes?
  - For example, an adenocarcinoma of the prostate found on biopsy without MRI. Can this be assigned cN0 or would it be a cNX.

NAACCR

ANSWER

- The rules in CS, especially the inaccessible lymph node rule, came from AJCC. There is a statement in the AJCC 7th edition clinical classification: Extensive imaging is not necessary to assign clinical classifications.

  The clinical N category can be assigned as cN0 based on the physician's assessment that nodal involvement is unlikely due to the other parameters of the case, and is further implied by the treatment choice (which is based on the clinical stage).

http://cancerbulletin.facs.org/forums/showthread.php?5517-Prostate-clinical-N-staging
http://cancerbulletin.facs.org/forums/showthread.php?7114-Prostate-clinical-n&highlight=prostate+clinical+staging

PATHOLOGIC N

- Pathologic ***N*** is generally assigned based on pathologic assessment of the regional lymph nodes.
  - Ideally this includes a sufficient number of lymph nodes to assess the highest pathologic ***N*** value.
  - For breast one or more negative sentinel lymph nodes is sufficient to assign a pathologic **N0**

CONFIRMING THE HIGHEST N VALUE

- If a primary tumor cannot be removed (or if it is unreasonable to remove) and if the highest T or N categories or the M1 category can be confirmed microscopically, the criteria for pathologic classification have been met.

EXAMPLE

- A core biopsy of a supraclavicular lymph node confirms adenocarcinoma from a lung primary.
  - Supraclavicular lymph nodes are an N3 for lung.
  - Assign a pN3

CLINICAL M

- Clinical ***M*** is generally assigned based on physical exam, imaging or surgical exploration.
  - M0 is always clinical
  - No MX

PATHOLOGIC M

- Pathologic ***M*** is assigned based on pathologic confirmation of distant mets.
  - Any pathologic confirmation of distant metastasis is an ***pM1***
  - M0 is always clinical
  - No MX

pT1 pN1 cM0 pathologic stage III
pT1 pN1 pM1 pathologic stage IV

STAGE GROUPING

- Stage Grouping
  - After assignment of TNM categories
  - Stage 0, I, II, III or IV

Stage Grouping-Breast			
Stage 0	Tis	N0	M0
Stage I	T1	N0	M0
Stage IIA	T0	N1	M0
	T1	N1	M0
Stage IIB	T2	N1	M0
	T3	N0	M0

STAGE GROUPING

- Stage Grouping
  - Any T or Any N

Stage Grouping-Breast			
Stage IIIc	Any T	N3	M0
Stage IV	Any T	Any N	M1

STAGE GROUPING

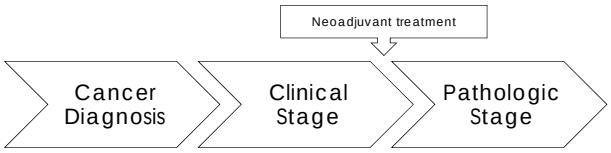
- Clinical Stage
  - cT cN cM
- Pathologic Stage
  - pT pN pM
  - pT pN cM
  - cT or pT cN or pN pM

pM has to be an M1

WORKING STAGE

- Clinical Stage
  - T N0 M0 Stage 99
- Pathologic Stage
  - T2 N M Stage 99
- Working Stage
  - pT2 cN0 cM0 Stage I

Y PREFIX



Y PREFIX

- A patient is diagnosed with breast cancer. Imaging shows as 5cm tumor confined to the left breast. No indication of skin or chest wall involvement. Lymph nodes are normal and no metastasis is identified.
- The patient receives neoadjuvant chemotherapy.
- A modified radical mastectomy shows a 1.5cm tumor confined to the breast and 2 positive axillary lymph nodes.

Y PREFIX

- Clinical Stage (information collected prior to any treatment)
  - cT2 cN0 cM0 Stage IIA
- Pathologic Stage (information from surgery)
  - ypT1c ypN1a cM0 Stage yIIA

TIMING RULE

- Clinical timing rule
  - Includes staging information obtained before initiation of definitive treatment.

  Or
  - Within 4 months after the date of diagnosis

  Use Information from whichever is shorter

The clock stops ticking if there is any disease progression!

TIMING RULE

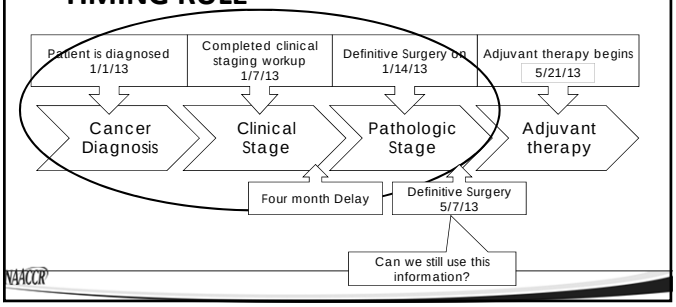
- Pathologic Timing Rule
  - Includes staging information obtained through completion of first course treatment

  Or
  - Identified within 4 months after the date of diagnosis

  Whichever is longer

The clock stops ticking if the patient has radiation or systemic therapy
or
if there is any disease progression!

TIMING RULE



DISEASE PROGRESSION

- Should I consider this patient with liver mets at diagnosis or is this a progression?
  - 5/31 : Right hemicolectomy : Adenocarcinoma Gr I/III with 4/21 lymph nodes. During surgery, surgeon states that the liver have no particularity neither others abdominal organs. Surgeon complete discharge summary on 10/11 and indicated Adenocarcinoma right colon T3N2M0.
  - 7/5: Consult with oncology : Patient was operated on 5/31, pT3N2. We will completed staging with a scan and CEA.
  - 7/5: Scan TAP : lesion suspicious for liver mets.
  - 07-19-2013 : Consultation with oncology : Scan TAP revealed the possibility of a liver mets. Patient is referred at another facility for opinion of liver mets treatment.
  - Patient is candidate for liver resection, will receive 4 cycles of Folfox/Avastin and reevaluation.

http://cancerbulletin.facs.org/forums/showthread.php?8658-Metastasis-at-diagnosis-or-progression

DISEASE PROGRESSION

- It is quite common to complete the staging after the surgical resection, as those findings may indicate a higher likelihood of distant mets.
- In this case, the further workup was done approximately one month after surgery, probably waiting for the patient to heal, and this would be considered in the pathologic staging, which would now be **pT3pN2cM1a** pathologic stage group IVA. It is not unusual that the surgeon couldn't palpate these liver lesions either due to size or their position in the liver, and they were then found on imaging. Especially since there was documentation to "complete the staging" which makes it clear this was not disease progression one month after surgery.

DISEASE PROGRESSION

- If they had enough information to assign a clinical stage would the clinical stage include a cM0?
  - For example if workup prior to surgery had shown a clinical T3 and clinical N0
- Yes
  - cT3 cN0 cM0 clinical stage IIa
    pT3 pN2 cM1a pathologic stage IVa

MULTIPLE TUMORS

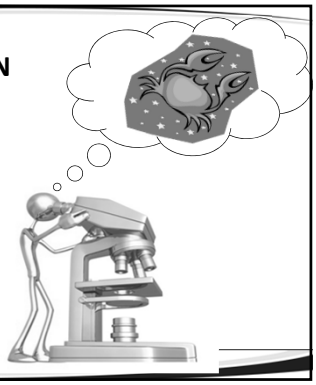
- Multiple Simultaneous Tumors
  - The tumor with the highest T category is the one selected for classification and staging

$T2_{(m)}$ or $T2_{(5)}$

- Simultaneous bilateral cancers in paired organs are staged separately

HISTOLOGIC CONFIRMATION

- Microscopic confirmation
  - *Should have*
- No biopsy or cytology?
  - Stage
  - Analyze separately
  - Exclude from survival analysis



BLANKS, X'S, 88'S, AND 99'S

- Blanks
  - The criteria for the stage classification (clinical or pathologic)has not been met or it is unknown if it has been met
  - No information in the medical record
- X's
  - T cannot be assessed
  - N cannot be assessed
  - Does not apply to M, if patient was examined it can be assigned
  - Criteria met for this stage classification so each category is valid value or X

BLANKS, X'S, 88'S, AND 99'S

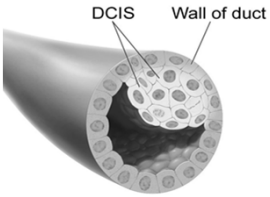
- 88's
  - Not applicable or not defined by AJCC
    - Brain
      - T88 N88 M88 Stage 88
  - Lymphoma
    - T88 N88 M88 Stage IV
- 99's
  - Unknown Stage

"DOWNSTAGING"

- When uncertain information is all that is available, choose the lower or lesser category.
  - Example
    - Endoscopic ultrasound shows a tumor of the colon. It cannot be determined if the tumor is confined to the muscularis propria (T2) or invades into the pericolic tissues (T3).
      - "Downstage" to T2

IN SITU

- By definition in situ indicates there is not spread to regional/distant organs or lymph nodes
- In order to call a tumor in situ a pathologist must review the entire tumor under a microscope.
- Results from the pathologic review of the entire tumor is recorded in the pT not cT
  - **Cannot have a cTis**



NAACCR

IN SITU STAGE GROUPING EXCEPTION

- An exception was made that allows us to use the pTis for both the clinical and pathologic stage and to use the cN0 for both the clinical and pathologic stage.
- However, the criteria for rules for classification have to be met in order to get a pathologic stage.

NAACCR

IN SITU STAGE GROUPING EXCEPTION

- Breast cancer patient has lumpectomy and is found to have ductal carcinoma insitu with negative margins. Clinically there is not indication of lymph node involvement or distant mets.
  - Free hand
    - pTis cN0 cM0 clinical stage 0
    - pTis cN0 cM0 pathologic stage 0
  - Registry Software
    - cT blank cN0 cM0 clinical stage 0
    - pTis pN blank pM blank clinical stage 0

NAACCR

IN SITU STAGE GROUPING EXCEPTION

- Bladder cancer patient has TURB. Pathology indicates an insitu tumor. No clinical indication of lymph node or distant metastasis.
  - Free hand
    - pTis cN0 cM0 clinical stage 0is
    - pTis cN0 cM0 pathologic stage 99
  - Registry Software
    - cT blank cN0 cM0 clinical stage 0is
    - pTis pN blank pM blank stage 99
  - Must have a cystectomy to assign a pathologic stage

NAACCR

QUESTIONS?

NAACCR

SEER SUMMARY STAGE

- Cases diagnosed prior to January 1, 2001 use the Summary Stage Guide published in 1977
- Cases diagnosed on or after January 1, 2001 use the Summary Staging Manual 2000
- http://seer.cancer.gov/tools/ssm/

NAACCR

SUMMARY STAGE

- All sites and all histologies can be assigned a summary stage
- Summary stage is an overall summary of the stage at diagnosis. Both clinical and pathologic information can be used to assign a summary stage.
- Timing
  - Include all info available through completion of surgery(ies) in 1st course treatment OR within 4 months of diagnosis in absence of disease progression; whichever is longer

NAACCR

SUMMARY STAGE

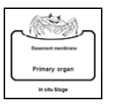
- Is a very basic way categorizing stage of disease
- Results from AJCC TNM and Summary Stage survey were not encouraging

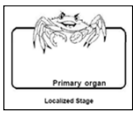
You have to use the manual!!!!

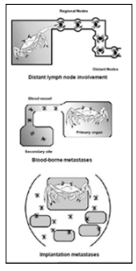
NAACCR

SEER SUMMARY STAGE

- 0 In situ
- 1 Localized
- Regional
  - 2 Direct Extension
  - 3 Lymph nodes
  - 4 Both
  - 5 NOS
- 7 Distant
- 8 Benign
- 9 Unknown







NAACCR

GUIDELINES

1. Rule out benign disease
2. Rule out in situ disease.
3. Rule out distant disease.
4. Rule out that the cancer is "confined to the organ of origin."
5. If in situ, localized and distant categories have been ruled out, the stage is regional (one of the four regionals available).

SAMPLE CASE

- Pathology from a modified radical mastectomy showed a 3cm invasive ductal carcinoma confined to the left breast and 4 positive axillary lymph nodes. A bone scan done soon after the mastectomy showed metastasis in her right femur.
- What is the Summary Stage
  1. Is this benign?
  2. Is this in situ?
  3. Is this distant?
  4. Is this localized?
  5. Is this regional?

SAMPLE CASE

- A CT showed a 2.3 cm malignant tumor in the upper lobe of the right lung. Also noted was hilar, subcarinal, and supraclavicular lymphadenopathy representing lymph node metastasis. No further malignancy identified. Physician staged T1b N3 M0 Stage IIIB
- What is Summary Stage?
  1. Is this benign?
  2. Is this in situ?
  3. Is this distant?
  4. Is this localized?
  5. Is this regional?

SUMMARY STAGE

3 Regional IPSILATERAL regional lymph node(s) involved only

REGIONAL Lymph Nodes

Aortic [above diaphragm], NOS:
Peri/para-aortic, NOS:
Ascending aorta (phrenic)
Subaortic (aortico-pulmonary window)
Bronchial
Carinal (tracheobronchial) (tracheal bifurcation)
Hilar (bronchopulmonary) (proximal lobar) (pulmonary root)
Intrapulmonary, NOS:
Interlobar
Lobar
Segmental
Subsegmental
Mediastinal, NOS:
Anterior
Posterior (tracheoesophageal)
Pericardial
Peri/parabronchial
Peri/paraesophageal
Peri/paratracheal, NOS:
Azygos (lower peritracheal)
Pre- and retrotracheal, NOS:
Precarinal
Pulmonary ligament
Subcarinal

Regional lymph node(s), NOS

7 Distant site(s)/node(s) involved

Distant lymph node(s):
Cervical, NOS
Contralateral/bilateral hilar (bronchopulmonary) (proximal lobar) (pulmonary root)
Contralateral/bilateral mediastinal
Supraclavicular (deep cervical), ipsilateral or contralateral
Supraclavicular (transverse cervical), ipsilateral or contralateral
Other distant lymph node(s)

Extension to:
Abdominal organs
Adjacent rib[##]
Contralateral lung
Contralateral main stem bronchus
Heart[##]
Pericardial effusion (malignant or NOS)
Pleural effusion (malignant or NOS)
Skeletal muscle
Skin of chest
Sternum
Vertebra(e)
Visceral pericardium[##]

Further contiguous extension

Separate tumor nodule(s) in different lobe[#*]

Separate tumor nodule(s) in contralateral lung

Metastasis

STAGING BREAST CASES

Pause the recording to complete quiz 1

NAACCR

CLINICAL STAGING

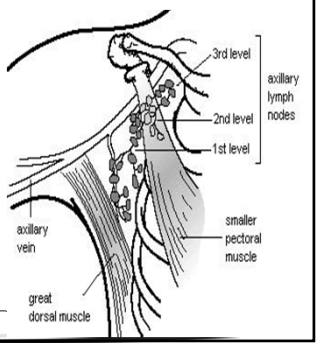
- Physical exam
  - Careful inspection of the skin, mammary gland, and lymph nodes
- Imaging
- Pathologic confirmation
- Sentinel lymph node biopsy

- Any findings after neoadjuvant treatment would be designated with a “yc”

NAACCR

PATHOLOGIC STAGING

- Must include resection of the primary tumor
  - Tumor specimen may have microscopic positive margins
- Regional lymph nodes
  - Usually six or more lymph nodes
  - Sentinel lymph node



NAACCR

QUESTIONS?

Breast Case Scenarios
Please pause the recording to complete the quiz questions

NAACCR

STAGING LUNG CASES

NAACCR

CLINICAL STAGING

- Clinical classification is based on P.E., imaging, lab tests, and staging procedures such as bronchoscopy, esophagoscopy (EBUS), mediastinoscopy, thoracentesis, thorascopy (VATS), as well as exploratory thoracotomy.

PATHOLOGIC STAGING

- Evidence acquired during surgery and after surgery.
  - Pathologic assessment of the primary tumor
  - Pathologic assessment of the regional lymph nodes

QUESTIONS?

Lung Case Scenarios
Please pause the recording to complete quiz 2

STAGING PROSTATE CASES

Please pause the recording to complete the quiz questions

CLINICAL STAGING

- Primary tumor assessment includes digital rectal exam of the prostate and histologic confirmation of prostatic carcinoma.

PATHOLOGIC STAGING

- Radical prostatectomy is required for pathologic stage…except when
  - Extension of the tumor into extraprostatic tissue is confirmed by needle biopsy (T3)
  - Extension in the seminal vesicles is confirmed by needle biopsy (T3)
  - A needle biopsy of the rectum is positive for adenocarcinoma that has directly extended from the prostate (T4).

QUESTIONS?

COMING UP…

- Collecting Cancer Data: Hematopoietic and Lymphoid Neoplasms-11/6/14
- Using the Multiple Primary and Histology (MP/H) Coding Rules-12/4/14

AND THE WINNERS ARE……





CE CERTIFICATE QUIZ/SURVEY

- Phrase
  - Downstaging
- Link
  - http://www.surveygizmo.com/s3/1825380/Staging-2014