Registrar’s Guide to Chapter 1, AJCC Seventh Edition

Overview

• Provide guidance to cancer registrars on key topics
  – Introduction and overview of AJCC staging
  – General rules for AJCC TNM staging
  – Introduction to T, N, and M
  – Required nonanatomic prognostic factors
  – Use of unknown X designation
  – Stage classifications and T, N, M categories
  – Clinical classification
  – Pathologic classification
  – Postneoadjuvant therapy classification
  – Retreatment classification
  – Autopsy classification
  – Stage groupings
  – Additional guidelines
  – Cancer staging data form
  – Recording cancer stage in medical record
  – Information and questions on AJCC staging

Learning Objectives

• Describe intent and purpose of AJCC staging
• Utilize general rules for AJCC staging
• Employ stage classification and T, N, M category principles
• Demonstrate stage grouping principles
• Recognize additional guidelines available
• Evaluate best use of cancer staging data form
• Relate options for stage documentation in medical record
• Identify resources for AJCC staging
Introduction and Overview of AJCC Staging

• AJCC TNM – the common language of cancer
  • International method to clearly convey without ambiguity
    – Clinical experience
    – Patient care
  • Accurate staging is necessary to
    – Evaluate results of treatments and clinical trials
    – Facilitate exchange and comparison of information among treatment centers
    – Serve as basis for clinical and translational cancer research

• Stage or extent of cancer at time of diagnosis
  – Defines prognosis
  – Determines appropriate treatment
  – Based on experience and outcomes of prior patients

Introduction and Overview

• Stage is determined based on
  – T is primary site tumor
  – N is regional lymph nodes
  – M is distant metastasis
  – Grouping cases with similar prognosis

• Criteria for defining anatomic extent of disease
  – Specific for tumors at different anatomic sites
    • Anatomic structure differences: tissue layers or homogeneous
    • Key factors in prognosis such as size, depth of invasion, number of nodes, location of nodes, distant metastasis
  – Specific for different histologic types

• AJCC staging rules
  – General rules in Chapter 1
  – Specifics for each disease in their respective chapter
General Rules for AJCC TNM Staging

Introduction to T

- T category
  - Defined by size, and/or
  - Contiguous extension of primary tumor

- T specifically designed for each primary site
  - Roles of size and contiguous spread depend on site characteristics

<table>
<thead>
<tr>
<th>Primary Tumor (T) values</th>
</tr>
</thead>
<tbody>
<tr>
<td>T0</td>
</tr>
<tr>
<td>Tis</td>
</tr>
<tr>
<td>T1, T2, T3, T4</td>
</tr>
<tr>
<td>TX</td>
</tr>
</tbody>
</table>

Note: Subcategories are allowed, such as T1mi, T1a

Introduction to N

- N category
  - Defined by absence or presence of cancer in regional draining lymph nodes

- N involvement categorized specifically for each site by
  - Number of positive nodes and/or
  - Involvement of specific regional nodal groups

<table>
<thead>
<tr>
<th>Regional Lymph Nodes (N) values</th>
</tr>
</thead>
<tbody>
<tr>
<td>N0</td>
</tr>
<tr>
<td>N1, N2, N3</td>
</tr>
<tr>
<td>NX</td>
</tr>
</tbody>
</table>

Note: Subcategories are allowed, such as N0(i+), N1mi, N2a
Introduction to M

- **M category**
  - Defined by absence or presence of distant spread or metastases
  - Generally in locations to which cancer is spread by
    - Vascular channels or
    - Lymphatics beyond nodes defined as regional

- **M specifically designed for some sites**
  - Subcategories for detailed areas of involvement

### Distant Metastasis (M) valid values

<table>
<thead>
<tr>
<th>M</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>M0</td>
<td>No distant metastases</td>
</tr>
<tr>
<td>M1</td>
<td>Distant metastases present</td>
</tr>
</tbody>
</table>

Note: The MX designation has been eliminated from the AJCC TNM system. Subcategories are allowed, such as cM0(i+), M1a

General Rules

1. **All cases should have microscopic confirmation**
   - Applies to all classifications, even clinical classification
   - Without confirmation, possible to
     - Presume cancer when it is not
     - Wrongly apply stage based on presumed site and histology
   - Cases without confirmation
     - Only rarely should cases not have biopsy or cytology
     - Can be staged using presumed histology
     - Survival must be analyzed separately for these cases
     - Do not include in overall disease survival analyses
     - If presumption of histology is incorrect, will confound/confuse survival data

2. **Eligible time period for clinical and pathologic staging**
   - Time period for clinical staging
     - Information before start of definitive treatment, or
     - Within 4 months after date of diagnosis
     - Use which of above is shorter time period
     - As long as no progression
   - Definitive treatment includes
     - Surgical resection
     - Systemic therapy (chemo, hormone, immuno therapies)
     - Radiation therapy
     - Active surveillance
     - Palliative care
General Rules

2. Eligible time period for clinical and pathologic staging

- Time period for pathologic staging
  - All information including definitive surgical resection, or
  - Within 4 months after date of diagnosis
  - Use which of above is longer time period
  - As long as no systemic or radiation prior to surgery
  - As long as no progression

- Definitive surgical resection
  - Must meet criteria for that specific chapter

3. Staging with neoadjuvant or primary systemic/radiation

- Neoadjuvant therapy definition
  - Systemic or radiation therapy is first treatment
  - Followed by surgical resection

- Clinical stage assigned
  - Only information prior to start of systemic/radiation
  - Used for comparative purposes
  - Used to determine response to therapy

3. Staging with neoadjuvant or primary systemic/radiation

- Postneoadjuvant therapy stage is y
  - y must always be modified as yc or yp

- yc
  - After systemic/radiation BUT prior to surgical resection

- yp
  - After systemic/radiation AND after surgical resection
### General Rules

#### 4. Progression of disease

- **Evidence of disease progression**
  - If before start of any treatment
  - Do not use this information for assigning stage

- **Evidence of disease progression before treatment**
  - Use only information before progression to assign stage

#### 5. Uncertain information

- **Assign the lower (lesser) category or stage group**
  - If uncertain or unclear information
  - Not enough information to definitely choose

- **Commonly called “downstaging”**

- **Does NOT apply to unknown information**
  - Unknown information does NOT use lowest category or group

#### Examples

- Imaging unclear if one node (N1) or two nodes (N2) are involved
  - Use N1 which is lower category

- Colonoscopy does not provide information on T category for colon
  - Use TX since information is unknown
  - Cannot assign T1 as this falsely skews data

- Lung clinical stage group for T2a NX M0
  - Use stage group unknown since no information on nodes
  - Cannot assign stage group using N0 as this falsely skews data

- **Physician may make clinical judgments for patient care**
General Rules

6. Nonanatomic factors not available

- Not available nonanatomic factor required for stage group
  - Case assigned based on lowest or least advanced factor
- Use nonanatomic factor as X in stage table
- If X not available
  - Use lowest level of the factor
  - Use least advanced category, least amount of factor

Required Nonanatomic Prognostic Factors

- Nonanatomic prognostic factors required for stage
  - Some AJCC chapters require these factors for assigning stage
  - Clearly defined and listed in stage tables, for example
    - Thyroid, Chapter 8 – age and histology
    - Gastrointestinal Stromal Tumor, Chapter 16 – mitotic rate
    - Soft Tissue Sarcoma, Chapter 28 – grade
- Factors collected separately from T, N, and M
  - Not part of TNM definitions
  - Separate additional information essential for prognosis in these sites
- Factors needed to accurately assign stage group
  - Critical in some chapters, and no alternative to the information
  - Some chapters provide alternatives

Required Nonanatomic Prognostic Factors

- Some chapters provide alternatives to situations of
  - Factor is not available
  - Physician desires to assign group ignoring factor
  - Factor is not needed for that individual stage group
- Factors NOT available and needed to assign stage group
  - Factor is assigned X
  - Allows stage group to be assigned
  - Allows physician to assign group ignoring factor
- Individual stage groups within table do not require factor
  - Any is factor option for some individual stage groups
  - Any means factor is not needed to assign that stage group
    - Factor can be known and documented
    - Factor can be unknown

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Use of Unknown X Designation

- X used when
  - Information is unknown for specific category

- Clarification of unknown
  - Unknown to physician providing patient care
  - Not unknown to one physician, but known to other physicians
  - Not unknown to registrar from lack of documentation in chart

- Misuse of X from registrar lacking chart information
  - Can skew data analysis
  - Can lead to
    - Inaccurate studies
    - Wrong conclusions about national status of patient care

Use of Unknown X Designation

- TX and/or NX cases usually cannot have stage assigned

- X category only used for T and N
  - When absolutely necessary

- Exception examples (not exhaustive list of every option)
  - Any T and/or Any N with M1 is stage IV
    - Any T N2 M1, T3 Any N M1, Any T Any N M1
  - TX and/or NX with M1 is stage IV
    - TX N2 M1, T3 NX M1, TX NX M1
  - Category combinations belong in one and only one stage group
    - Lung TX N3 M0 is stage III
      - Every combination of T with N3 M0 is stage III
    - Urethra T4 NX M0 is stage IV
      - T4 M0 with every combination of N is stage IV

Use of Unknown X Designation

- MX is NOT valid option for AJCC staging

- MX eliminated from AJCC 7th Edition

- Always cM0 unless clinical or pathologic evidence of mets

- Pathologists should not use MX
  - CAP agreed pathologists should not comment on M unless pM1
  - Pathologist cannot assign stage group unless case is pM1
Stage Classifications and T, N, M Categories

Clinical Classification

- Clinical classification composed of
  - T
  - N
  - M or pM
  - cT
  - cN
  - cM or pM

- If no designation before TNM, c is presumed

- Criteria
  - From time of diagnosis throughout diagnostic workup
  - Before any treatment

- Do NOT change original clinical stage based on
  - Pathologic exam of surgically resected tissue
  - Information obtained after start of definitive treatment
  - Information obtained after decision for no active treatment
Clinical Classification

Information included and timing
- All information during diagnostic workup
- From time of diagnosis up until first treatment
- Or within 4 months after diagnosis, whichever is shorter
- With no systemic/radiation therapy prior to surgery
- With no progression of disease

Clinical assessment – diagnostic workup
- Clinical history
- Physical examination
- Imaging
- Scopes and other invasive diagnostic procedures
- Lab tests and biologic markers
- Biopsy of primary site
- Surgical exploration only
- Diagnostic biopsy of lymph nodes, sentinel nodes
- Diagnostic biopsy of metastatic sites
- Related methods and other relevant examinations

Clarifications of clinical assessment methods
- Surgical exploration
  - Can include biopsy
  - Cannot continue on to surgical resection in same procedure
- Biopsy for T category
  - If tissue establishes highest possible T category, CAN use for pT
  - Also use for cT
- Biopsy of nodes is cN
  - Single node or sentinel nodes as diagnostic workup, and
  - In absence of pathologic evaluation of primary tumor
- Imaging
  - Extensive imaging NOT required to assign cT, cN or cM
- Biopsy of metastatic sites is pM
  - Discussion on M category follows

cM0 special considerations
- No symptoms or signs of mets is cM0
- No MX category, must be M0 or M1
- Only H&P is needed to assign cM0
  - Means patient must have history & physical
  - Does NOT mean registrar must have access to H&P report to assign
  - Extensive imaging not necessary to assign cM0

pM0 does not exist
- Not even in autopsy are all tissues in body sampled
- Negative biopsy of suspected metastatic site is cM0
Clinical Classification

• cM1 special considerations
  – Evidence on physical exam of mets
  – Evidence on imaging of mets
  – Evidence seen during scopes of mets not biopsied
  – Operative findings during surgical resection not biopsied

• pM1 special considerations
  – Positive biopsy of metastatic site
  – WITH cT and cN
  – Staged as both
  • Clinical stage IV – cT cN pM1
  • Pathologic stage IV – cT cN pM1

Clinical Classification

• Use of clinical classification
  – Select primary therapy
  – Treatment guidelines based on clinical classification
  – Critical for case comparisons
  • Differences in treatment make future comparisons impossible
  – Only point in time where ALL cases can be compared

• Documentation
  – Physician records in medical record
  – Recorded in cancer registry abstract clinical data fields
  – Essential for abstract to contain

Pathologic Classification
Pathologic Classification

- Pathologic classification composed of
  - pT
  - pN
  - cM or pM

- Criteria
  - From time of diagnosis through surgical resection findings
  - Use all clinical staging information AND
  - Add to it or change it by evidence from
    - Operative findings
    - Pathology report on resected tissue

- Pathologic classification made up of 3 components
  - Clinical classification information
  - Operative findings during surgical resection
  - Pathology report on resected specimen

Pathologic Classification

- Information included and timing
  - All information during diagnostic workup and surgical treatment
  - From time of diagnosis until end/completion of surgical treatment
  - Or within 4 months after diagnosis, whichever is longer
  - With no systemic/radiation therapy prior to surgery
  - With no progression of disease
  - Clinical classification information
  - Operative findings during surgical resection
  - Pathology report on resected specimen

Pathologic Classification

- Clarifications of pathologic assessment methods
  - Clinical classification information
    - Same physical exam and diagnostic studies from clinical stage
  - Operative findings during surgical resection
    - Surgeon’s statements of viewed/palpated involvement
    - Do NOT need biopsy to include in pT
    - Do NOT need biopsy to include in pN, unless NO nodes biopsied
  - Pathology report on resected specimen
    - May overrule clinically suspected involvement
    - Clinical or operative findings are used for stage UNLESS
      - Histologic exam of resected tissue disproves those findings
  - Pathology report is NOT final stage
    - Pathology report is only 1/3 of necessary information
    - Report does NOT take into consideration other 2/3 of information

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Pathologic Classification

• Primary tumor (pT) assessment for pathologic classification
  – Resection of primary tumor, generally
  – Some chapters require
    • More extensive resection of tumor
    • Partial or complete organ resection
  – Generally from single specimen

• T special considerations
  – Physicians estimate size from several partial resections
  – Size recorded in whole millimeters
    • Round as necessary to whole millimeter
    • Whole millimeter used to assign pT
    • Fractions of millimeters NOT used to increase pT category
  – Evaluation of highest T category
    • Biopsy of primary tumor is adequate, then
    • pT can be assigned without resection

Pathologic Classification

• Regional node (pN) assessment for pathologic classification
  – Resection of regional nodes
  – Require pathologic exam of ONE node

• N special considerations
  – Number of nodes resected
    • Minimum number to assure sufficient sampling
    • Expected number of nodes defined in chapters
    • If fewer than minimum nodes, pN is still assigned
    • Sentinel node procedure substitutes for expected minimum number
  – Do NOT need pathologic confirmation of highest N category
  – pT generally necessary for pN
  – Microscopic evaluation of highest N category
    • May use pN regardless whether T is pT or cT

Pathologic Classification

• pN0(i+) special considerations
  – Isolated tumor cells (ITC) in lymph nodes
    • Single tumor cells or small clusters of cells
    • Not more than 0.2mm in greatest diameter
  – Designated as pN0 – negative nodes
    • ITC are considered negative nodes in all sites except two
    • Melanoma and Merkel cell consider ITC as positive nodes
    • Some chapters use pN0(i+) when common in that site
    • Other chapters use pN0
  – pN0(i+) for detected by immunohistochemistry (IHC)
  – pN0(i-) for IHC done and no tumor cells found
  – pN0(mol+) for detected by molecular techniques
  – pN0(mol-) for molecular technique done and no tumor cells found
  – Also can be detected by flow cytometry and DNA analysis
  – Uncertain prognostic significance of these cells
  – Use i+ and i- to denote status of ITC & gather data
Pathologic Classification

- Mets assessment for pathologic classification may be
  - Clinical using cM0 or cM1
  - Pathologic using pM1

- pM1 special considerations
  - Requires biopsy positive for cancer at metastatic site
  - Meets criteria for pathologic classification without resection of primary site

- pM0 does NOT exist
  - pM0 is undefined concept
  - Autopsy may not satisfy since EVERY tissue must be sampled
  - pM0 may not be used

Pathologic Classification

- cM0 special considerations
  - No signs or symptoms of mets
  - Only H&P performed on patient is needed to assign

- cM0(i+) special considerations
  - Biopsy shows isolated tumor cells (ITC)
  - Detected by immunohistochemistry (IHC) or molecular techniques
  - CTCs – circulating tumor cells in blood
  - DTCs – disseminated tumor cells in bone marrow or distant organs
  - Uncertain prognostic significance of these cells
  - Categorized as M0, use i+ to denote these cells & gather data

- cM1 special considerations
  - Evidence from clinical assessment
  - Operative findings during surgical resection not biopsied

Pathologic Classification

- Use of pathologic classification
  - Select adjuvant therapy
  - Treatment guidelines for adjuvant therapy based on pathologic classification
  - Significant additional prognostic information
  - More precise than clinical classification
  - Commonly used for survival studies due to precise data
    - Only used for cases with surgical resection as first treatment

- Documentation
  - Physician records in medical record
  - Recorded in cancer registry abstract pathologic data fields
  - Essential for abstract to contain in surgically resected cases
Postneoadjuvant Therapy Classification

• Postneoadjuvant therapy classification composed of
  – ycT  – ypT
  – ycN  – ypN
  – cM or pM  – cM or pM

• Neoadjuvant therapy definition
  – Systemic and/or radiation therapy given prior to surgery
  – Systemic includes chemotherapy, hormone therapy, immunotherapy

• Criteria for yc assessment
  – After systemic/radiation and before surgery
  – After systemic/radiation with no surgery performed

• Criteria for yp assessment
  – After systemic/radiation AND after surgical resection

• yc – information included and timing
  – All information at that time using clinical assessment methods
  – Performed after systemic/radiation and prior to surgery
  – Use clinical classification rules for assigning ycT and ycN
  – Use M as classified prior to all treatment
  – Clinical stage after systemic/radiation

• yp – information included and timing
  – All information at that time using pathologic assessment methods
  – Performed after systemic/radiation/surgery
  – Use pathologic classification rules for assigning ypT and ypN
  – Use M as classified prior to all treatment
  – Pathologic stage after systemic/radiation/surgery
### Postneoadjuvant Therapy Classification

- **Provides information on response to therapy**
  - Classification useful to physicians
  - Measured against clinical classification to show response
  - Response noted as: complete, partial, or no response
  - Provides important prognostic information to patients
  - \( yc \)
    - Shows response to systemic/radiation and is prognostic
    - Directs type and extent of surgery to be performed
  - \( yp \)
    - Surgical resection removes any remaining cancer
    - Verifies response to systemic/radiation through pathology assessment of tissue and is prognostic
    - Directs subsequent systemic and/or radiation therapy

- **Neoadjuvant therapy is increasingly common**
  - Important to assess response and document
  - Analyze outcomes

### M Category for \( yc \) and \( yp \)

- Use M status defined PRIOR to therapy
- May be either clinical (cM) or pathologic (pM)

- **Positive biopsy of metastatic site**
  - \( pM1 \) is recorded for all classifications
  - Clinical stage IV
  - \( yc \) stage IV
  - \( yp \) stage IV

- **Must assign clinical classification**
  - Estimate of disease prior to all treatment

- **Clinical stage used for**
  - Case comparisons, studies, clinical trials
  - Surveillance analysis

### Use of Postneoadjuvant Therapy Classification

- Critical to assess response to therapy
- Monitor success of neoadjuvant as it grows in use

- **Documentation – physician**
  - Physician records both \( yc \) and \( yp \) in medical record

- **Documentation – registrar – \( yc \)**
  - \( yc \) NOT recorded in cancer registry abstract
  - No data fields available for \( yc \) classification
  - Cannot use clinical data fields

- **Documentation – registrar – \( yp \)**
  - \( yp \) recorded in cancer registry abstract pathologic data fields
  - Must code 4 in pathologic stage descriptor data field
  - Identifies stage as \( yp \) and NOT \( p \)
Retreatment Classification

• Retreatment classification composed of
  – rT
  – rN
  – rM

• Also called recurrence classification

• Criteria
  – Patient must have been disease-free prior to recurrence
  – Further treatment is planned

• Does NOT change original clinical and pathologic stage

• Do NOT use when patient never free of disease

Retreatment Classification

• Information included and timing
  – All information at time of retreatment
  – Biopsy confirmation is important
    • May not be medically possible
    • Is not mandatory

• May include
  – Biopsy of T, N, and/or M categories if possible
  – Clinical evidence
    • Physical exam
    • Imaging
    • Scopes and other invasive procedures
    • Lab tests and biologic markers
    • Related methods
Retreatment Classification

- Use of retreatment classification
  - Extent of current disease used to guide new therapy
  - Prognostic information from clinical extent and therapeutic procedures
  - Cannot be compared to other stage classifications

- Documentation
  - Physician records in medical record
  - NOT recorded in cancer registry abstract
  - No data fields available for retreatment classification
  - Cannot use clinical or pathologic data fields

Autopsy Classification

- Autopsy classification composed of
  - aT
  - aN
  - aM

- Criteria
  - NO evidence of cancer prior to death
  - NO possibility or suggestion of cancer prior to death
  - Incidental finding on autopsy

- Information included and timing
  - All clinical and pathologic information obtained at time of death
  - Autopsy information

- Do NOT use when known cancer patient has autopsy
Autopsy Classification

- Use of autopsy classification
  - No opportunity for physician to intervene in course of disease
  - Cannot be compared to other stage classifications

- Documentation
  - Physician records in medical record
  - NOT recorded in cancer registry abstract
  - No data fields available for autopsy classification
  - Cannot use clinical or pathologic data fields

Stage Groupings

Purpose of Stage Groupings

- Anatomic stage/prognostic groups
  - Comprised of T, N, and M
  - Nonanatomic factors sometimes required to supplement TNM
  - Disease specific groups
  - Similar prognosis for each group
  - Useful for guideline development
  - Facilitate communication regarding types of patients
  - Commonly referred to as stage groups

- Data tabulation and analysis
  - Depends on grouping patients into a few categories
  - Need fewer groups of larger numbers for meaningful data

- Stage groups are summary of staging information that is
  - Reproducible
  - Easily communicated

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**Principles of Stage Groupings**

- Classified by Roman numerals I-IV, indicates
  - Increasing severity of disease
  - Worsening prognosis

- General definitions
  - Stage I – smaller or less deeply invasive with negative nodes
  - Stage II and III – increasing tumor or nodal extent
  - Stage IV – distant metastases at diagnosis

- Additional stage group designated for
  - Stage 0 – carcinoma in situ with no metastatic potential

- Expanded into subsets for
  - More refined prognostic information
  - Example stage II becomes stage IIA, stage IIB

**Standard Composition of Stage Groupings**

- Clinical Stage Group
  - cT
  - cN
  - cM or pM

- Pathologic Stage Group
  - pT
  - pN
  - cM or pM

- Postneoadjuvant Therapy Stage Group
  - ypT
  - ypN
  - cM or pM

**Stage Grouping Principles**

- Standard stage group principle defined for each case
  - Pure clinical stage group
  - Pure pathologic stage group

- Pure stage group does NOT mean
  - Every category must be c
    - cT cN cM
  - Every category must be p
    - pT pN pM

- Pure stage group does mean following AJCC rules
  - Using c or p for categories according to established rules
  - Examples
    - cT cN cM clinical stage group
    - pT pN pM pathologic stage group
Stage Grouping Principles

• Working stage
  – Used by physicians in clinical setting of patient care
  – Only partial information available according to staging rules
  – Must combine clinical and pathologic information
  – Combination allows assignment of stage group
  – Used for treatment decisions and patient care
  – NOT documented by cancer registry

CIS Exception to Stage Grouping

• Carcinoma in situ (CIS) definition
  – Does not involve any structures that allow tumor spread
  – Cells cannot spread to
    • Other parts of primary site/organ
    • Regional tissues outside primary site/organ
    • Regional nodes
    • Distant sites

• CIS exception to stage grouping principles
  – pTis cN0 cM0 clinical stage 0
  – pTis cN0 cM0 pathologic stage 0

• Caution for pathologic stage 0
  – Requires chapter specific criteria is met
  – Cannot assign based on small sample
  – Potential sampling error if less than chapter criteria

Stage Grouping Guidelines

• Assign stage group according to
  – Timing
  – Appropriate rules
  – Do not change due to subsequent information after time frame

• Documenting stage group in medical record
  – All appropriate groups recorded in chart, not just one group

• Uncertainty general rule #5 also applies to stage group
  – Assign lower or less advanced group with uncertain information
  – Do NOT apply to unknown information such as TX and/or NX in order to assign group
Stage Grouping Guidelines

• Exception for pCR

  • pCR
    – Pathologic complete response to neoadjuvant therapy
    – After systemic/radiation followed by surgery
    – No evidence of active invasive cancer cells
    – Based on resection pathology report
    – May have in situ disease

  • Stage categories and group assigned for pCR is
    – ypT0 ypN0 cM0
    – NOT stage 0 (used for in situ disease only)
    – NO stage group assigned

Additional Guidelines

Multiple Tumors

• AJCC rules for multiple primary tumors
  – May not agree with registry MPH rules

• Multiple simultaneous tumors of same histology in 1 organ
  – Tumor with highest T category is used for classification & staging
  – Multiplicity or number of tumors is in parentheses
    – T2(m) shows multiple tumors or T2(5) shows there are five tumors

• Simultaneous bilateral cancers in paired organs
  – Tumors classified separately
  – Stage as independent tumors in different organs

• Multiple tumor criteria is part of T category for
  – Thyroid, liver, and ovary
Multiple Tumors in Registry Data Field

- Registry software data field for m descriptor
- FORDS Clinical Stage (prefix/suffix) Descriptor
  - Code 3 M-Multiple primary tumors in a single site
  - NAACCR Item #6980
- FORDS Pathologic Stage (prefix/suffix) Descriptor
  - Code 3 M-Multiple primary tumors in a single site
  - Code 6 M&Y-Multiple primary tumors & initial multimodality therapy
    - Meets criteria for code 3 and code 4 (y-classification for neoadjuvant)
    - NAACCR Item #620

Metachronous Primaries

- Metachronous – developing at a later interval
- Second or subsequent primary cancers
  - Occurring in same organ, or
  - Occurring in different organs are
    - Staged as NEW cancer
- Second cancers do not use y prefix
  - Unless treatment of second cancer is neoadjuvant therapy
- AJCC rules for metachronous primaries
  - May not agree with registry MPH rules

Unknown Primary

- Staging based on clinical suspicion of primary site
  - No evidence of primary tumor, or
    - Site of primary tumor is unknown, then
      - T category assigned as T0
- Example 1
  - Axillary node bx shows metastatic ca consistent with breast cancer
  - No tumor seen in breast on mammogram, US, and MRI
  - Stage assigned as breast cancer T0 N1 M0
- Example 2
  - Cervical node bx shows metastatic squamous cell ca consistent with head and neck cancer
    - History of sores in oral cavity, especially hard palate
    - Stage assigned as oral cavity cancer T0 N1 M0
Cancer Staging (Data) Form

Staging Form for Each Chapter

- Each chapter includes staging form for physicians
- Forms include
  - Clinical, pathologic, and postneoadjuvant therapy classifications
  - T, N, and M
  - Stage groups
  - Prognostic factors (site-specific factors)
  - Histologic grade
    - Additional descriptors
      - Lymph-vascular invasion (LVI)
      - Residual tumor (R)
  - Clinical stage used in treatment planning
  - National guidelines used in treatment planning
  - Physician signature and date
  - Identification of hospital and patient

Staging Form Use

- Staging form used at different points in time
  - Diagnosis and workup, before treatment
  - After surgical resection as first course of treatment
  - After neoadjuvant systemic/radiation therapy & before surgery
  - After neoadjuvant systemic/radiation therapy and surgery
  - Recurrence
- Best to use separate form for each point in time
- If same form used for multiple time points
  - Ensure staging basis for each T, N, M category clearly identified
- Staging form is specific additional document
  - Not substitute for H&P, staging evaluations
  - Not substitute for treatment plans, follow-up

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AJCC Staging Form

- Incorporation of forms into electronic record or system
  - Requires appropriate permission from AJCC and publisher

- Modification of forms whether paper or electronic
  - Requires appropriate permission from AJCC and publisher

- Paper cancer staging forms in AJCC Manual
  - May be duplicated for individual or institutional use
    - Includes only immediate institution or work environment
    - Without permission from AJCC or publisher

- Permission requests submitted to
  - http://cancerstaging.net

Recording Cancer Stage in Medical Record

- Physician recording stage in medical record
  - Critical for communication between physicians
  - Useful to communicate data to cancer registry
  - Stage in every record, all admissions and outpatient encounters

- Physician options for documenting stage
  - Initial clinical evaluations: H&P, consults
  - Operative reports
  - Discharge summaries
  - Staging Form

- Staging Form
  - Paper form included in each AJCC chapter
  - Electronic forms also available (e-staging tool)
CAnswer Forum

- Submit questions to AJCC Forum
  - Located within CAnswer Forum
  - Provides information for all
  - Allows tracking for educational purposes
- http://cancerbulletin.facs.org/forums/

Summary

- Articulate intent and purpose of AJCC staging
- Apply AJCC rules, principles, and guidelines accurately
  - General rules for AJCC staging
  - Stage classification and T, N, M category principles
  - Stage grouping principles
  - Additional guidelines available
- Recommend and operationalize
  - Cancer staging data form
  - Stage documentation in medical record
- Identify resources for AJCC staging
  - Information, guidance, and education
  - Obtain answers to questions

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Thank you

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