Registrar’s Guide to Chapter 1, AJCC Seventh Edition

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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
Introduction and Overview

• 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) valid 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) valid 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
• **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

<table>
<thead>
<tr>
<th>Distant Metastasis (M) valid values</th>
</tr>
</thead>
<tbody>
<tr>
<td>M0</td>
</tr>
<tr>
<td>M1</td>
</tr>
</tbody>
</table>

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

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
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
5. Uncertain information

• 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
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 IIIB
      – Every combination of T with N3 M0 is stage IIIB
    • 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

• Clinical classification composed of
  – T       – cT
  – N       – cN
  – M or pM – 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
Clinical Classification

• 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
Clinical Classification

• 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
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
    • pT pN cM0 or pT pN cM1
  – Pathologic using pM1
    • pT pN 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

- **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
Postneoadjuvant Therapy Classification

• 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
Postneoadjuvant Therapy Classification

• 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
Postneoadjuvant Therapy Classification

• 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

- 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

- 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
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 pM clinical stage group
    • pT pN cM 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 #980

• 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 #920
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
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
Recording 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)
Information and Questions on AJCC Staging
AJCC Web site

- https://cancerstaging.org

- Cancer Staging Education menu includes
  - Articles
    - 18 articles on AJCC staging in various medical journals
  - Resources
    - Staging Moments – 15 case-based presentations in cancer conference format to promote accurate staging with answers and rationales
  - Webinars
    - 14 free webinars on staging rules and some disease sites

- Watch for education plans and content in the future
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
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
Thank you

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