HOW TO USE THE AJCC CANCER STAGING MANUAL, 8TH EDITION

FCDS Annual Educational Conference
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Steven Peace, CTR

CDC & Florida DOH Attribution

“We acknowledge the Centers for Disease Control and Prevention, for its support of the Florida Cancer Data System, and the printing and distribution of the materials for the 2015-2016 FCDS Webcast Series under cooperative agreement DP003872-03 awarded to the Florida Department of Health. The findings and conclusions in this series are those of the author(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention”.

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Outline

• History, Purpose and Background
• Purchase and Ordering Information & Errata
• Introduction to AJCC Cancer Staging Manual, 8th ed.
• AJCC Cancer Staging Manual Organization
• General Chapter Outline and Contents
• Specific Neoplasms Included by Chapter
• Neoplasms Not Included in the AJCC Manual
• Locating the Correct Chapter for a Case
• AJCC 8th Edition Staging Rules
• Other Helpful Information
• Questions

History, Purpose and Background

• The AJCC Cancer Staging Manual is used by physicians, cancer registries, and other allied health care professionals throughout the world to provide consistent nomenclature to describe cancer stage and to facilitate the uniform description and reporting of cancer staging for most adult neoplastic diseases.

• Staging provides patients with cancer and their physicians the critical benchmark and standards for defining prognosis, the likelihood of overcoming the cancer once diagnosed, and for determining the best treatment approach for the disease.

• Staging also forms the basis for understanding the changes in population cancer incidence, the extent of disease at initial presentation, and the overall impact of improvements in cancer treatment.

• A major challenge to TNM Staging is the rapid evolution of knowledge in cancer biology and the discovery and development of biologic factors that predict cancer outcome and response to treatment with better accuracy than purely anatomically based staging.

• However, anatomic extent of disease remains the key prognostic factor, the strongest predictor of outcome, in most diseases. Therefore, the T, N, and M components remain purely anatomic.

• The Eighth Edition of the AJCC Cancer Staging Manual brings together all the currently available information on staging of cancer at various anatomic sites and incorporates new knowledge on the etiology and pathology of cancer…supplemented by selected genetic and biomolecular tumor markers.
Purchase and Ordering Information

- COST: $119.99
- ISBN: 978-3-319-40617-6

- 1429 pages
- 512 illustrations
- 187 color illustrations

- Required - Florida Mandate
  - FCDS will not purchase
  - Facility may purchase
  - Individual may purchase

- https://cancerstaging.org
- http://springer.com
- 1-800-SPRINGER

AJCC Cancer Staging Manual, 8th ed - Errata
Intro to AJCC Staging Manual, 8th ed.

• Enhanced Chapter 1 – Principles of Cancer Staging
• Enhanced Descriptions of Staging Rules – Chapter 1
  • Timing for Staging
  • Clinical Staging Criteria and General Rules
  • Pathologic Staging Criteria and General Rules
  • Rules for Assigning T, N, and M Category Codes
  • Rules for Determining Prognostic Stage Group
  • Timing and Criteria for Post-Therapy Staging (yc/yp)

• 12 new staging systems
• 83 total chapters defined by site/subsite and specific histologies
• New Site-Specific Fields – no more “factors” – but similar instructions and codes

Intro to AJCC Staging Manual, 8th ed.

• New Sections or Features within Chapters
  • AJCC Levels of Evidence for Changes to Staging Criteria
  • Guidance on the Use of Imaging to Evaluate Stage for Each Chapter
  • Prognostic Factors
    • Factors Required to Assign Prognostic Stage Group
    • Factors Recommended for Managing Patient Care
    • Emerging Factors
  • Risk Assessment Models
  • Clinical Stratification Recommendations

• Chapter-Specific Histology Codes – No longer uses range of acceptable codes –
• Histology Code List updated with 2018 MPH Rules to ensure all new for 2018 histology codes are included in appropriate chapter(s) – and to keep up with WHO Classifications
Intro to AJCC Staging Manual, 8th ed.

- New Chapters for 8th edition
  - Head and Neck
    - Cervical Lymph Nodes with Unknown Primary – check for EBV or HPV Status
    - HPV-Mediated (p16+) Oropharynx Cancer – When p16- Use Oropharynx (p16-) or Hypopharynx
    - Cutaneous Squamous Cell Carcinoma of Head and Neck
  - Thorax
    - Thymus
  - Endocrine System
    - Parathyroid
    - Adrenal Neuroendocrine Tumors
  - Hematologic Malignancies
    - Leukemia

Intro to AJCC Staging Manual, 8th ed.

- Split Chapters for 8th edition
  - Pancreas
    - Exocrine Pancreas – Hepatobiliary System
    - Neuroendocrine Tumor of Pancreas – see Neuroendocrine Tumors (NET)
  - Neuroendocrine Tumors (NET)
    - NET of Stomach
    - NET of Duodenum and Ampulla of Vater
    - NET of Jejunum and Ileum
    - NET of Appendix
    - NET of Colon and Rectum
    - NET of Pancreas
Intro to AJCC Staging Manual, 8th ed.

- Split Chapters for 8th edition
  - Bone – multiple staging tables with T Category Code based on type/location of primary
    - Appendicular Skeleton
    - Pelvis
    - Spine
- Soft Tissue Sarcoma
  - Introduction to Soft Tissue Sarcoma
  - Soft Tissue Sarcoma of Head and Neck
  - Soft Tissue Sarcoma of Trunk and Extremities
  - Soft Tissue Sarcoma of Abdomen and Thoracic Visceral Organs
  - Soft Tissue Sarcoma of Retroperitoneum
  - Soft Tissue Sarcoma – Unusual Histologies and Sites
  - GIST is now in Soft Tissue Sarcoma Section

Intro to AJCC Staging Manual, 8th ed.

- Merged Chapters for 8th edition
  - Ovary, Fallopian Tube, Primary Peritoneal Carcinoma
  - Consistent with WHO Classification, 4th edition
  -Allows GYN Staging of C48.2 Cases

Surface Epithelial – Epithelial Stromal Tumors

Serous tumors:
- Benign (cystadenoma)
- Borderline tumors (serous borderline tumor)
- Malignant (serous adenocarcinoma)

Mucinous tumors, endocervical-like and intestinal type:
- Benign (cystadenoma)
- Borderline tumors (mucinous borderline tumor)
- Malignant (mucinous adenocarcinoma)

Endometrioid tumors:
- Benign (cystadenoma)
- Borderline tumors (endometrioid borderline tumor)
- Malignant (endometrioid adenocarcinoma)

Clear cell tumors:
- Benign
- Borderline tumors
- Malignant (clear cell adenocarcinoma)

Transitional cell tumors:
- Brenner tumor
- Brenner tumor of borderline malignancy
- Malignant Brenner tumor
- Transitional cell carcinoma (non-Brenner type)

Epithelial-stromal:
- Adenosarcoma
- Carcinosarcoma (formerly mixed Mullerian tumors)
Changes from AJCC Staging Manual, 7th ed.

AJCC 8th Edition Staging Rules – Chapter 1

- Entire 30 pages devoted to Staging Rules and is Table-Driven with User Notes
- Definitions are included for vocabulary related to cancer staging
- Clarification on Use of “X”, <blank> and Zero (0)
- Clarification on Use of Clinical & Pathological Stage Descriptors
- Clarification on “Response to Neoadjuvant Therapy”
- Explanation for How to Apply Tables to Assign New Prognostic Stage Groups
- AJCC will be hosting webinar(s) on Key Elements of Chapter 1 – General Rules
- 2018 FCDS Abstractor Code Test Absolutely WILL Have Questions from Chapter 1
AJCC 8th Edition Staging Rules - PDF

AJCC 8th Edition – Staging Clarifications
Reinforced Concepts – “X” versus <Blank>

- Explaining Blanks and X, Ambiguous Terminology and Support for AJCC Staging
  https://cancerstaging.org/CSE/Registrar/Documents/Explaining%20Blanks%20and%20X%20%26%20Ambiguous%20Terminology%20%26%20Support%20for%20AJCC%20Staging%20updated%20December%202015.pdf – this presentation was updated December 2015 and is still valid.
- Does patient meet criteria for clinical and/or pathological staging?
- EDITsv18 will reinforce training – EDITsv17 was used to test

  - “X” indicates something was done for T or N Category Code but result was not clear in the test report to assess the primary tumor size/extent or nodal status. “X” does not equal “Unknown”
  - <blank> indicates no test was performed, patient not eligible to stage, no info available in medical record on staging to determine T or N Category Code
  - M Category always be coded when the patient meets eligibility criteria for staging
    - cM0 can be used for clinical no evidence of mets AND for pathological when mets not proven histologically
    - pM1 is histologically proven mets (bx or resection) and can be used for clinical and pathological

Using the AJCC 8th edition API (AJCC API)

- The American Joint Committee on Cancer (AJCC) has developed an Application Programming Interface to deliver the 8th Edition Cancer Staging System in XML format. For the first time, the AJCC will be making the Cancer Staging System available in an XML format to directly integrate into software and applications.

- This will allow software developers to:
  - Focus on usability of software rather than accuracy of the AJCC content
  - Integrate once and maintain connection for all future versions of AJCC Staging System
  - Take advantage of upcoming enhancements to API content in real-time
  - Benefit from the most accurate and up-to-date AJCC Staging System in your software
AJCC Staging Manual Organization – Chapter 2

• Table of Contents
• Part I – General Information on Cancer Staging and End-Results Reporting
  • Chapter 1 – Principles of Cancer Staging
  • Chapter 2 – Organization of the AJCC Cancer Staging Manual
  • Chapter 3 – Cancer Survival Analysis
  • Chapter 4 – Risk Models for Prognosis in Practice of Precision Oncology
• Part II – Head and Neck (Chapters 5-15)
• Part III – Upper GI Tract (Chapters 16-18)
• Part IV – Lower GI Tract (Chapters 19-21)
• Part V – Hepatobiliary System (Chapters 22-28)
• Part VI – Neuroendocrine Tumors (Chapters 29-34)
• Part VII – Thorax (Chapters 35-37)

AJCC Staging Manual Organization – Chapter 2

• Part VIII – Bone (Chapter 38)
• Part IX – Soft Tissue Sarcoma (Chapters 39-45)
• Part X – Skin (Chapters 46-47)
• Part XI – Breast (Chapter 48)
• Part XII – Female Reproductive System (Chapters 49-56)
• Part XIII – Male Genital Organs (Chapter 57-59)
• Part XIV – Urinary Tract (Chapters 60-63)
• Part XV – Ophthalmic Sites (Chapters 64-71)
• Part XVI – Central Nervous System (Chapter 72)
• Part XVII – Endocrine System (Chapters 73-77)
• Part XVIII – Hematologic Malignancies (Chapters 78-83)
What Happened to the Staging Forms?

- Staging Forms for recording cancer staging data will be available on [www.cancerstaging.org](http://www.cancerstaging.org).

- These printable forms may be used by physicians to record data on T, N, and M categories; prognostic stage groups; additional prognostic factors; cancer grade; and other important information.

- This form may be useful for recording information in the medical record and for communicating information from physicians to the cancer registrar.

- The cancer staging form is a document for the patient record; it is not a substitute for documentation of history, physical examination, and staging evaluation, or for documenting treatment plans for follow-up.

- Staging Forms may be used by individuals without permission from the AJCC or the publisher.

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General Chapter Outline and Contents

<table>
<thead>
<tr>
<th>AJCC Cancer Staging Manual, 8th Edition - Chapter Outline</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chapter Summary</strong></td>
</tr>
<tr>
<td>- Summary of major changes and applicable disease</td>
</tr>
<tr>
<td>- Cancer Staging Using Tumor Staging System</td>
</tr>
<tr>
<td>- Cancer Staging Using Clinical Staging System</td>
</tr>
<tr>
<td>- Summary of Changes</td>
</tr>
<tr>
<td>- NOS Tumor Stage Coding</td>
</tr>
<tr>
<td>- WHO Histology Codes</td>
</tr>
<tr>
<td><strong>Introduction</strong></td>
</tr>
<tr>
<td>- General information on the clinic site, such as background, trends, and recent developments</td>
</tr>
<tr>
<td><strong>Pathology</strong></td>
</tr>
<tr>
<td>- Imaging</td>
</tr>
<tr>
<td>- Histologic</td>
</tr>
<tr>
<td><strong>Prognostic factors</strong></td>
</tr>
<tr>
<td>- Indicators and discussion of non-TNM prognostic factors important in all disease</td>
</tr>
<tr>
<td>- Prognostic Factors Used for Stage Grouping</td>
</tr>
<tr>
<td>- Additional Factors Recommended for Clinical Care</td>
</tr>
<tr>
<td>- Emerging factors for Clinical care (still under study)</td>
</tr>
<tr>
<td><strong>Risk Assessment Models</strong></td>
</tr>
<tr>
<td>- Prognostic and predictive models validated by the AJCC’s acceptance criteria for inclusion of risk models in individualized prognostics in the practice of precision medicine</td>
</tr>
<tr>
<td>- Additional figures illustrating anatomic extent of disease</td>
</tr>
</tbody>
</table>

[21/22]
Specific Neoplasms Included by Chapter

<table>
<thead>
<tr>
<th>ICD-O-3 Topography Codes</th>
<th>WHO Classification of Tumors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>C40.0</td>
<td>Appendicular skeleton, trunk, skull and facial bones</td>
</tr>
<tr>
<td>C40.1</td>
<td>Long bones of upper limb, scissors and associated joints</td>
</tr>
<tr>
<td>C40.2</td>
<td>Long bones of lower limb and associated joints</td>
</tr>
<tr>
<td>C40.3</td>
<td>Short bones of upper limb and associated joints</td>
</tr>
<tr>
<td>C40.4</td>
<td>Short bones of lower limb and associated joints</td>
</tr>
<tr>
<td>C40.5</td>
<td>Overlapping lesion of bones, joints, and articular cartilage of limbs</td>
</tr>
<tr>
<td>C40.6</td>
<td>Bones of limb, NOS</td>
</tr>
<tr>
<td>C41.1</td>
<td>Mandible</td>
</tr>
<tr>
<td>C41.2</td>
<td>Rib, sternum, clavicle, and associated joints</td>
</tr>
<tr>
<td>C41.3</td>
<td>Overlapping lesion of bones, joints, and articular cartilage</td>
</tr>
<tr>
<td>C41.4</td>
<td>Bone, NOS</td>
</tr>
<tr>
<td>C41.5</td>
<td>Spine</td>
</tr>
<tr>
<td>C41.6</td>
<td>Vertebral column</td>
</tr>
<tr>
<td>C41.7</td>
<td>Pelvis</td>
</tr>
<tr>
<td>C41.8</td>
<td>Pelvic bones, sacrum, coccyx, and associated joints</td>
</tr>
<tr>
<td>9370</td>
<td>Chordoma</td>
</tr>
<tr>
<td>8830</td>
<td>Epithelioid sarcoma</td>
</tr>
</tbody>
</table>

Neoplasms Not Included in Manual/Chapter

Cancers Not Staged Using This Staging System

<table>
<thead>
<tr>
<th>Histologic types of cancer...</th>
<th>Are staged according to...</th>
<th>Found in Chapter...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary malignant lymphoma</td>
<td>Hodgkin and Non-Hodgkin Lymphoma</td>
<td>79</td>
</tr>
<tr>
<td>Multiple myeloma</td>
<td>Multiple Myeloma and Plasma Cell Disorders</td>
<td>82</td>
</tr>
</tbody>
</table>

Cancers Not Staged Using This Staging System

<table>
<thead>
<tr>
<th>These histopathologic types of cancer...</th>
<th>Are staged according to the classification for...</th>
<th>And can be found in chapter...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nasopharyngeal cancer</td>
<td>Nasopharynx</td>
<td>9</td>
</tr>
<tr>
<td>HPV-related oropharynx cancer</td>
<td>HPV-mediated (p16+) oropharynx cancer</td>
<td>10</td>
</tr>
<tr>
<td>Melanoma</td>
<td>Melanoma of the skin</td>
<td>47</td>
</tr>
<tr>
<td>Mucosal melanoma</td>
<td>Mucosal melanoma of the head and neck</td>
<td>14</td>
</tr>
<tr>
<td>Thyroid carcinoma</td>
<td>Thyroid carcinoma</td>
<td>73–74</td>
</tr>
<tr>
<td>Soft tissue sarcoma</td>
<td>Soft tissue sarcoma of the head and neck</td>
<td>40</td>
</tr>
<tr>
<td>Eyelid</td>
<td>Eyelid carcinoma</td>
<td>64</td>
</tr>
</tbody>
</table>
Locate the Correct Chapter/Section for this Case

**TABLE 1**

<table>
<thead>
<tr>
<th>T CATEGORY</th>
<th>T CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>T0</td>
<td>No primary identified</td>
</tr>
<tr>
<td>T1</td>
<td>Tumor 2 cm or smaller in greatest dimension</td>
</tr>
<tr>
<td>T2</td>
<td>Tumor larger than 2 cm but not larger than 4 cm in greatest dimension</td>
</tr>
<tr>
<td>T3</td>
<td>Tumor larger than 4 cm in greatest dimension or extension to adjacent structure</td>
</tr>
<tr>
<td>T4</td>
<td>Moderately advanced local disease; tumor invades the bladder, extravesical muscle of the bladder, or pelvic wall</td>
</tr>
</tbody>
</table>

*Table 1 is used with the permission of the American Joint Committee on Cancer (AJCC), Chicago, Illinois. The original source for this material is the AJCC Cancer Staging Manual. Eighth Edition (2017) published by Springer Science and Business Media LLC, (2017) with permission. The full staging manual is available at www.springer.com.*

**OR**

**TABLE 2**

<table>
<thead>
<tr>
<th>T CATEGORY</th>
<th>T CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>T0</td>
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<td>T4</td>
<td>Moderately advanced local disease; tumor invades the bladder, extravesical muscle of the bladder, or pelvic wall</td>
</tr>
</tbody>
</table>

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**Review Clinical & Pathological Criteria for this Chapter – Does Case Meet Criteria?**

- **Rules for Classification - Urinary Bladder**

  - **Clinical Classification** – “Primary tumor assessment includes cystoscopic assessment, bimanual examination before and after endoscopic surgery (biopsy or transurethral resection), radiographic evaluation, and histologic verification of the presence or absence of tumor when indicated. All factors are important in determining a clinical stage of disease. Despite optimal evaluation, clinical understaging and over-staging remains a concern…(continued).”

  - **Imaging** – “Imaging is recommended to stage and characterize most newly diagnosed bladder cancer. Published guidelines recommend pelvic and upper-tract evaluations for all patients with higher risk bladder tumors. As most patients with bladder cancer present with hematuria, imaging evaluation of the upper urinary tract using CT or MRI urography is recommended. Imaging plays a complementary role to deep biopsy in local staging of bladder cancer…(continued).”

  - **Pathological Classification** – “Pathological staging is performed on partial cystectomy and radical cystectomy specimens and is based on both gross and microscopic assessment. A pT status should be assessed regardless of the number of lymph nodes examined and irrespective of the laterality of the lymph nodes extracted. If no lymph nodes are evaluated, pNX status should be assigned…(continued).”
Apply General plus Chapter-Specific Rules

• Chapter 1 – General Staging Rules – READ THOROUGHLY and USE ALWAYS

• General Staging Rules PDF – READ THOROUGHLY and USE ALWAYS

• Chapter-Specific Rules – Priority Over General Rules – READ THOROUGHLY and APPLY CAREFULLY

• Many New Anatomic Drawings Added to AJCC 8th edition – Use them

• WARNING: Software Drop Down Select Menus do not include Rules

• WARNING: EDITS cannot identify all circumstances when rules apply

Determine the Best T, N, and M Category Code for Clinical and Pathological Stage

<table>
<thead>
<tr>
<th>T: Primary Tumour</th>
</tr>
</thead>
<tbody>
<tr>
<td>T0</td>
</tr>
<tr>
<td>T1</td>
</tr>
<tr>
<td>T1a</td>
</tr>
<tr>
<td>T1b</td>
</tr>
<tr>
<td>T1c</td>
</tr>
<tr>
<td>T2</td>
</tr>
<tr>
<td>T2a</td>
</tr>
<tr>
<td>T2b</td>
</tr>
<tr>
<td>T3</td>
</tr>
<tr>
<td>T4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>N: Regional Lymph Nodes</th>
</tr>
</thead>
<tbody>
<tr>
<td>NX</td>
</tr>
<tr>
<td>N0</td>
</tr>
<tr>
<td>N1</td>
</tr>
<tr>
<td>N2</td>
</tr>
<tr>
<td>N3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>M: Distant Metastasis</th>
</tr>
</thead>
<tbody>
<tr>
<td>M0</td>
</tr>
<tr>
<td>M1</td>
</tr>
<tr>
<td>M1a</td>
</tr>
<tr>
<td>M1b</td>
</tr>
<tr>
<td>M1c</td>
</tr>
</tbody>
</table>

*Listen closely! I will tell you this only once! Read the manual*
Did the Patient Receive NeoAdjuvant Tx?

- Isn’t ‘yp’ stage the same as pathological staging? NO – measures response to TX
- What is Neoadjuvant Treatment? What is Intent of this Treatment?
- Does any treatment given before surgery qualify as neoadjuvant?
- What are exceptions to treatment given before surgery that is not neoadjuvant?
- What about treatment given for late stage cancer – can this be neoadjuvant?
- What about hormone therapy given before prostate or breast surgery?
- What are common cancer conditions that qualify to receive neoadjuvant therapy?
  - Breast – large tumor, clinically positive nodes
  - Rectal – any tumor, any nodal status
  - Lung – early stage, tumor location and size, resectable or not, histology
- DON’T FORGET TO CODE THE DESCRIPTOR FOR THESE CASES – very important!!!

Importance of Cancer Genomics - NCI

- Cancer is a genetic disease.
- Cancer genomics research contributes to precision medicine by defining cancer types and subtypes based on their genetics and identify targets for new medicines
- “targeted therapies” specifically combat characteristics of cancer cells that are different from normal cells of the body. This makes them less likely to be toxic for patients compared to other treatments such as chemotherapy and radiation that can kill normal cells.
- How do “targeted therapies” work?
  - Inhibit enzymes that trigger the abnormal growth and survival of cancer cells
    - Imatinib (Gleevec) inhibits overactivity of protein Bcr-ABL tyrosine kinase in leukemia patients
  - Block aberrant gene expression characteristic of cancer cells
    - Trastuzumab (Herceptin) controls hyperactive signaling pathway (HER2 tyrosine kinase) - breast
  - Halt molecular signaling pathways that are in overdrive in cancer cells
    - Erlotinib (Tarceva) and gefitinib (Iressa) both restrict activation of a protein (EGFR) in lung cancers
Tumor Marker or Genetic Alteration

**Tumor Marker**
- Tumor Markers are indicators of cellular, biochemical, molecular or genetic alterations by which neoplasia can be recognized.
- Tumor markers detect the presence of tumor based on quantitative and/or qualitative measurements in blood or secretions found in cells, tissues or body fluids.
- These surrogate measures of the biology of the cancer provide insight in the clinical behavior of the tumor.
- Biochemical or immunologic counterparts of differentiation states of tumor.

**Genetic Alteration**
- Cancer is a multigene disease that arises as a result of mutational and epigenetic changes coupled with activation of complex signaling intra and extra cellular networks.
- Alterations in 3 Classes of Genes
  - Protooncogenes
  - Tumor Suppressor Genes
  - DNA Repair Genes
- Resultant effects on death mechanisms embedded within cells coupled with dysregulation of cell proliferation events.

**Comparison of the histopathology, molecular pathology, genetic, and gene-expression analysis methods used to delineate breast cancer tumor subtypes and suggested current and future therapies in a historical context**

![Comparison of histopathology, molecular pathology, genetic, and gene-expression analysis methods](http://www.nature.com/article-assets/npg/nrclinonc/journal/v4/n9/images/ncponc0908-f1.jpg)
Today – Precision Cancer Medicine Workup

Site-Specific Fields Required for Staging

- Each Chapter includes the Site-Specific Fields Required for Staging (if any)
- You MUST also document ALL Site-Specific Field Values/Results in TEXT
- You MUST look for these tests and results – they are really important!
  - Analytic Cases MUST include valid entries in these critical fields
  - Non-Analytic Cases SHOULD include valid entries as available
- FCDS will monitor overuse of 999 default values
- Include same tests as CS SSFs for some cancers
- Instructions and Codes may differ from CS
- Field Length and Location of Decimal
- Site-Specific Fields Manual Pending
- Other – age, LVI, LN +/-exam, T Size
Sample New SSFs - Required for Staging

Full Data Item Name: Esophagus and OESL Squamous Cell (Including adenocarcinoma), Tumor Location
Recommended NACCR Data Item Name: Esophag Distal Tumor Epithelium
Data Item Length: 1
Required for AJCC 8th Edition Staging: Yes

Note: This data item can be used to collect data on the distal tumor location of squamous cell carcinomas of the esophagus.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>AJCC ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Upper (cervical/esophageal) to lower border of aortic arch</td>
<td>A02.311.1.1</td>
</tr>
<tr>
<td>2</td>
<td>Middle (lower border of aortic arch to lower border of diaphragm)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Lower (lower border of diaphragm to superior margin of stomach)</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Name, location, not documented in medical record</td>
<td></td>
</tr>
</tbody>
</table>

Site-Specific Fields – Clinically Relevant

Lifestyle Factors
- Tobacco Use
- Depression
- Alcohol

Virus Exposures
- HSV/HPV
- HIV
- Hep B or Hep C

Overall Health Status
- Comorbidity(s)
- Overall Health
- Performance Status
  - Zubrod/ECOG
  - Karnofsky

Other Anatomic Info
- Location of Positive Lymph Node(s)
- Size of Positive Node
- Extraneural Extension
- Perineural Invasion
- Tumor Thickness
- Depth of Invasion
- Surgical Margins

- Clinically Relevant Site Specific Prognostic Variables are in the AJCC Staging Manual
- New Site Specific Fields not yet created to store these variables
- ALL are Pending Review
- None are Required in 2018
- None are Optional in 2018
- No Instructions or Codes – Yet.
Site-Specific Fields – Emerging Factors

CAUTION

Identification of and Testing for Next Generation Biomarkers, Genetic Tests and Multi-Gene Profiles and Establishing Data Collection Standards for Emerging SSFs

Determining Prognostic Stage Groups

- MUST MEET THE CRITERIA FOR STAGING TO BE STAGED
- Verify ALL Required Variables Have Been Coded
- Clinical Prognostic Stage Group
- Pathological Prognostic Stage Group
- Response to Neoadjuvant Therapy (yp/yc)
- Proper Use of Clinical and Pathological Descriptor Fields

| Table 8. Examples of Novartis to Breast Cancer Staging using Biomarkers and Oncotype DX |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| T   | M   | M   | HR2 | ER  | 5 YEAR ESTIMATES OF OVA500 / ONCOTYPE DX | 6 YEAR ESTIMATES OF OVA500 / ONCOTYPE DX |
| 1   | 0   | 0   | -   | -   | IA   | IA   |
| 2   | 0   | 0   | -   | -   | IA   | IA   |
| 3   | 1-2 | 6   | -   | -   | IA   | IA   |
| 3-2 | 3   | 6   | Any | Any | IA   | IA   |
| 3-2 | 1   | 0   | Any | Any | IA/BI | IA/BI |
| 4-2 | 2   | 0   | Any | Any | IA/BI | IA/BI |

Notes: 1. T stage: 0: primary tumor only, 1: < 2 cm, 2: 2-5 cm, 3: > 5 cm
2. M stage: 0: negative, 1: positive
3. HER2: 0: 0-15%, 1: 16-30%, 2: > 30%
4. ER: 0: negative, 1: positive
5. VON HOFF II: 0: histologically negative, 1: positive
6. 5 YEAR ESTIMATES: 0 = median survival, 1 = survival at 5 years
7. 6 YEAR ESTIMATES: 0 = median survival, 1 = survival at 6 years

[Diagram showing timeline of events related to biomarker and biomarker-related activities]
TNM and Site-Specific Field EDITS

Nemesis: the goddess of revenge

In the ancient Greek religion, Nemesis was the goddess who enacted retribution against those who succumb to hubris (arrogance before the gods).

Another name was Adrastela, meaning “the inescapable”

Tips and Pointers

• Read Chapter 1 – this is where the General Rules are documented
• Specific Chapters may include exceptions to General Rules
• Read the Entire Chapter at least once – there are lots of details often overlooked
• Read the Entire Chapter at least once – drop down menus do not include specifics for inclusion in staging, staging exclusions, or exceptions or special caveats for specific criteria or staging guidelines within each specific cancer site chapter
• Use EDITS to learn staging rules – DO NOT USE to change data just to “pass” edits
• Practice - Use Reliable Resource for Answers & Rationale
• Ask for Assistance as Needed
AJCC Staging Manual Site-Specific Training

Helpful Information
https://cancerstaging.org
Helpful Information

http://onlinelibrary.wiley.com for copies of articles


- March/April 2017 - Volume 67, Issue 2
  - The 8th Edition AJCC Cancer Staging Manual: Continuing to build a bridge from a population-based to a more "personalized" approach to cancer staging
  - Head and Neck cancers—major changes in the American Joint Committee on Cancer 8th edition Cancer Staging Manual
  - Lung cancer — major changes in the American Joint Committee on Cancer 8th edition Cancer Staging Manual

- May/June 2017 - Volume 67, Issue 3
  - Prostate cancer – major changes in the American Joint Committee on Cancer 8th edition Cancer Staging Manual

- July/August 2017 – Volume 67, Issue 4
  - AJCC Staging Topic(s) TBA

Helpful Information

http://ascopubs.org/journal/jco

  - Modified Staging Classification for Pancreatic Neuroendocrine Tumors on the Basis of the American Joint Committee on Cancer and European Neuroendocrine Tumor Society Systems

- Journal of Thoracic Oncology Vol. 12 No. 1: 36-42
  - Cancer of the Esophagus and Esophagogastric Junction: An 8th Edition Staging Primer
Questions

mommy, where do CUPCAKES come from?