

AJCC 8th Edition Staging

Overview

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AJCC

American Joint Committee on Cancer

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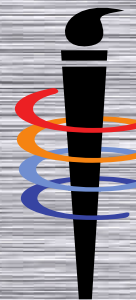


Learning Objectives

- Review development of AJCC 8th Edition
- Outline Chapter 1 – Principles of Cancer Staging
- Explain fundamental changes to disease site chapters
- Summarize new and changed disease site chapters



Development of AJCC 8th Edition



Overview

- AJCC TNM is used worldwide
 - Not just for use in the US
 - International collaboration
 - International databases used to develop staging systems
- AJCC Cancer Staging Manual
 - Supplies T, N, M, and stage groups
 - Provides critical information to understand staging system
 - General information and anatomy
 - Criteria for clinical and pathological classifications
 - Guidance on applying T, N, M category criteria
 - Evidence used for changes
 - Explanations for prognostic factors
 - Grade system for that chapter
 - Comments on histologies



AJCC 8th Edition

- 18 Expert panels
 - 5 continents
 - 22 countries
 - 415 individual contributors
- 7 Cores including Data Collection Core
- Partnerships – collaboration and license AJCC content
 - UICC
 - CAP Protocols
 - NCCN guidelines
 - Other endeavors

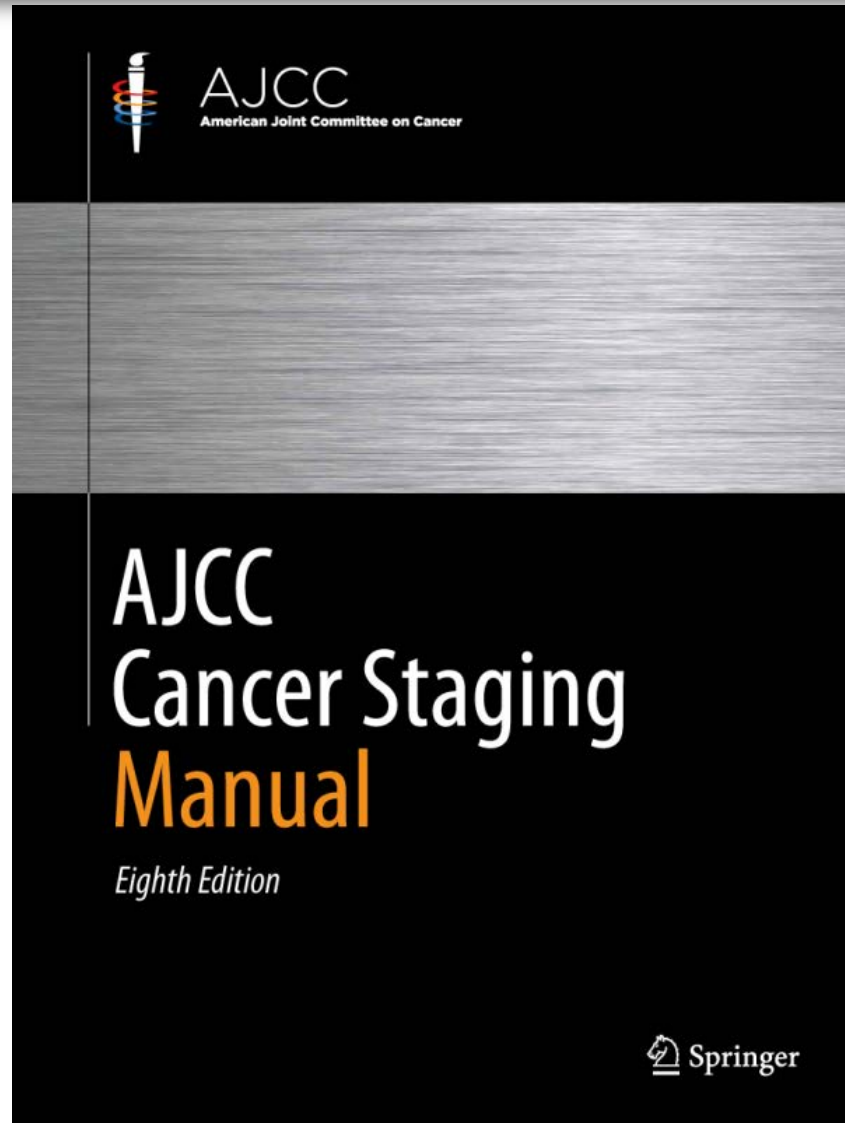


Philosophy

- Levels of evidence for key information ensure transparency
- Changes must be based on data
- Data sources
 - NCDB
 - SEER
 - Multi-institutional databases
 - International databases
 - Publications



AJCC Eighth Edition



8th Edition Dedication

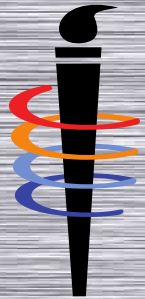
Eighth Edition Dedication

*The AJCC Cancer Staging Manual, 8th Edition is dedicated to all
CANCER REGISTRARS in recognition of their:*

- *education and unique commitment to the recording and maintenance of data that are so vital for the care of the cancer patient;*
- *professionalism in the collection of factors that are fundamental to sustaining local, state, and national cancer registries;*
- *dedication to the cataloging of information crucial to cancer research;*
- *leadership, support, and promulgation of the principles of cancer staging;*
- **AND THEIR POSITIVE IMPACT ON CANCER PATIENT OUTCOMES.**



Chapter 1 – Principles of Cancer Staging



Chapter 1 Staging Rules

- Team of physicians reviewed Chapter 1
 - Extensive line by line review
 - Over a span of two years
- Harmonization Summit September 2015
 - Full day for vetting staging rules
 - Audience response system for voting
 - Approximately 60 physicians in attendance
 - Registrars also participated
- Final chapter reviewed/edited by 7 physicians



Chapter 1 Staging Rules

- Expansion of chapter 1 rules
 - Explains the basics of staging
 - Clarify terminology
 - Describes time frame and criteria for each classification
- A few *new* rules based on changes in medical practice
- Detailed rules for clinical and pathological classifications
 - Guidance for T, N, and M for both classifications
- Detailed rules for stage groups
- Rules in table format for easy reference



Terminology

- Pathological is new classification term for 8th edition
 - Previous editions: pathologic staging
 - 8th edition: changed to pathological staging
- Emphasize T, N, M are categories
 - Example: T category, not T stage
 - Subcategories
 - Ensured each subcategory has a main category in the table
- New term for stage groups
 - 7th edition: anatomic stage/prognostic groups
 - 8th edition: prognostic stage groups



Chapter 1 - Structure

- Introduction
 - Role of managing physician in assigning stage
- AJCC TNM staging system
 - Introduction
 - Classifications
 - Categories and subcategories
 - Prognostic stage groups
 - Unknown designation: X
- General staging rules
 - Guiding principles
 - Table format



Chapter 1 - Structure

- Stage classifications
 - General information and criteria
 - Table format
- Clinical
 - **Timeframe** and **criteria**
 - Detailed rules for T, N, and M
- Pathological
 - **Timeframe** and **criteria**
 - Detailed rules for T, N, and M
- Timeframe and criteria only
 - Posttherapy or Post Neoadjuvant Therapy
 - Recurrence or retreatment
 - Autopsy



Chapter 1 - Structure

- AJCC Prognostic stage groups
 - Rules for stage group assignment
 - Table format
- Additional staging descriptors and guidelines
 - N suffixes include
 - Sentinel nodes (sn)
 - FNA or core biopsy (f)
 - Multiple primary tumors (m)
 - Guidance on synchronous and metachronous primaries
 - Unknown primary site T0

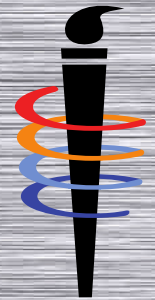


Chapter 1 - Structure

- Additional staging descriptors and guidelines
 - Histologic codes for staging
 - Grade
 - General rules
 - Cancer registry documentation
 - LVI
 - Coding structure with new options
 - Residual tumor and surgical margins
 - Guidance and coding instructions
 - Response to neoadjuvant therapy assessment
 - Guidance for pathologists in determining response



Fundamental Changes to Disease Site Chapters



New and Revised Chapters

- New AJCC staging based on
 - Sites or subsites
 - Histologies
- Split current chapters in some sites, based on
 - Anatomic subsites
 - Differences in staging due to histology
- 83 chapters in 8th edition
 - 7th edition had 57
- Chapters updated to keep pace with medical advances



Reorganization of Chapters

- Organization of chapters by body system or function
 - Part I through Part XVIII
- Examples
 - Thyroid moved to endocrine system
 - GIST moved to soft tissue sarcoma
 - Urinary tract is its own section
 - Includes both males and females



New Features

- Levels of Evidence
- Imaging
- Risk Assessment Models
- Recommendations for Clinical Stratification
- Prognostic factors
 - Required for stage grouping
 - Recommended for clinical care
 - Emerging factors (available online only)



Imaging Section

- Imaging section in each chapter
- Guidance for physicians when ordering tests
- Information for radiologists on reporting results
 - Structured reporting is being promoted
- Aids communication for assigning stage



Factors and Registry Data Collection

- Most factors similar to 7th edition
- Prognostic factors distinguished by their purpose
 - Prognostic factors required for stage grouping
 - Categories assigned along with TNM
 - Additional factors recommended for clinical care
 - Important for physicians in care of their patients
 - Emerging factors
 - Latest information, will be reevaluated as evidence grows
- Registry data collection variables
 - Recommended by physician experts
 - Guidance for surveillance community



Histology Code Changes

- WHO Classification of Tumors used for 8th Edition
 - Defined list of histology codes and terms included in chapter
- Histology code
 - Indicates prognostic staging is only for those histologies
 - Does not indicate histology may not occur in that disease site
 - Does not include terms no longer in common usage

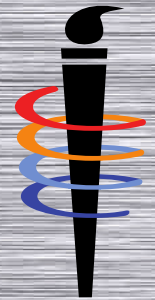


Histology Code Changes

- Histology codes
 - No longer range of ICD-O-3 histologies
 - Previously were inclusive of all histologies common in registries
- Discussions ongoing with SEER
 - Regarding MPH rules
 - Guidance provided by AJCC experts
 - Example: colon cancer needs to indicate histology driving the prognosis, not the fact it arose in a polyp



New and Changed Disease Site Chapters



New Paradigms

- Mediating variable affecting the cancer and staging
- Separate stage groups for post neoadjuvant therapy staging
- Based on specific anatomic sites and subsites
- Unknown primaries with nodal involvement
- Inclusion of staging for sites not in previous editions



New Chapters

- New disease site chapters for staging
- Head and Neck
 - Cervical Lymph Nodes & Unknown Primary
 - HPV-Mediated (p16+) Oropharynx Cancer
 - Cutaneous Squamous Cell Carcinoma of the Head and Neck
- Thorax
 - Thymus
- Endocrine System
 - Parathyroid
 - Adrenal Neuroendocrine Tumors
- Hematologic Malignancies
 - Leukemia



Chapter Changes

- Split chapters resulting in some new staging
- Pancreas
 - Exocrine Pancreas – Hepatobiliary System
 - Neuroendocrine Tumor of Pancreas – Neuroendocrine Tumors
- Neuroendocrine Tumors
 - Neuroendocrine Tumors of the Stomach
 - Neuroendocrine Tumors of the Duodenum and Ampulla of Vater
 - Neuroendocrine Tumors of the Jejunum and Ileum
 - Neuroendocrine Tumors of the Appendix
 - Neuroendocrine Tumors of the Colon and Rectum
 - Neuroendocrine Tumors of the Pancreas



Chapter Changes

- Split chapters or sections resulting in some new staging
- Bone – one chapter, multiple staging sections
 - Appendicular Skeleton/Trunk/Skull/Face
 - 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



Chapter Changes

- Split chapters – may be in different disease systems
- Head & Neck Pharynx
 - Nasopharynx
 - HPV-Mediated (p16+) Oropharynx
 - Oropharynx (p16-) and Hypopharynx
- Appendix
 - Appendix – Lower Gastrointestinal Tract
 - Neuroendocrine Tumors of Appendix – Neuroendocrine Tumors
- Endocrine System Thyroid
 - Thyroid – Differentiated and Anaplastic
 - Thyroid – Medullary



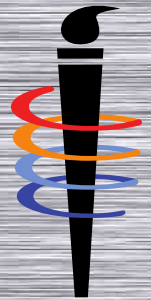
Chapter Changes

- Merged chapters
 - Ovary, Fallopian Tube, and Primary Peritoneal Carcinoma

- Deleted chapters
 - Cutaneous Squamous Cell Carcinoma and Other Cutaneous Carcinomas



Staging Changes



Head and Neck

- **Cervical Nodes and Unknown Primary**
 - New criteria for extranodal extension (ENE)
 - Extranodal extension designated as ENE(+) or ENE(-)
 - Occult primary tumors (unknown primary) are T0
 - If EBV-related stage with nasopharynx
 - If HPV-related stage with oropharynx
 - All other cases use this chapter
- **HPV-mediated (p16+) Oropharyngeal Cancer**
 - Test utilized is p16 (cyclin-dependent kinase inhibitor 2A)
 - p16+ staged with this chapter
 - p16- staged with Oropharynx (p16-) and Hypopharynx chapter
- **Cutaneous Squamous Cell Ca of Head & Neck**
 - Staging system does not change reportability requirements



Upper Gastrointestinal Tract

- Esophagus & Esophagogastric Junction
 - Different stage group tables for clinical, pathological, ypathological
 - Change in tumor location criteria
 - Change in proximal stomach location for EGJ tumors

- Stomach
 - Different stage group tables for clinical, pathological, ypathological
 - Change in proximal stomach location for EGJ tumors



Lower Gastrointestinal Tract

- Colon and Rectum

- Histology codes do not include polyp origin
- Histology driving prognosis utilized
- Discussions with SEER for MPH rules

- Anus

- Lesions overlying perineal body are perianal or vulvar
- Perianal are staged with this chapter
- Anatomical illustrations for perianal vs skin



Neuroendocrine Tumors

- Well differentiated is not the grade
 - It is histologic type
- NET may be Grade 1, Grade 2, or Grade 3
 - Most common is G1 and G2
 - Rare well differentiated NET G3 are included
- Grade based on
 - Mitotic count
 - Ki-67 index



Thorax

- Lung
 - New designations to specify type of *in situ*
 - New size cut points
 - New T1mi
 - Tables with criteria for multiple tumors vs separate tumors
 - Revisions and new M1 subcategories



Bone and Soft Tissue Sarcoma

- Bone

- T category by type of bone

- Appendicular skeleton, trunk, skull, facial bones

- Spine

- Pelvis

- Must assign grade according to AJCC grade table

- Soft tissue sarcoma

- Separate chapters based on site and/or histology

- GIST chapter in this section



Skin

- Merkel cell carcinoma
 - Rule changes for cN category
 - Critical to indicate sentinel nodes only
 - Different stage groups for clinical and pathological

- Melanoma
 - New size cut points for T category
 - Mitotic rate no longer used
 - Redesigned stage tables
 - Different stage groups for clinical and pathological



Breast

- Two breast stage group tables: anatomic & prognostic
- Anatomic stage group
 - Only in global regions where biomarkers tests not routinely available
- Prognostic stage group
 - Used in countries where biomarker tests routinely performed
- Cancer registries **must** use Prognostic Stage Group table
 - If biomarkers not available, case reported as unstaged
 - T, N, M information assigned, but registry stage group is 99
- Lobular carcinoma *in situ* **not** staged
 - Does not affect reportability – ask your standard-setter



Male Genital Organs

- Prostate

- Grade Group

- WHO and International Society of Urologic Pathologists (ISUP)
 - Formalized changes to Gleason scoring
 - Adoption of prognostically important Grade Groups
 - Table in AJCC chapter

- No pT2 subcategories



Endocrine System

- Thyroid Differentiated and Anaplastic
- Differentiated
 - New age cut point <55 or ≥ 55
- Anaplastic
 - New T categories



Hematologic Malignancies

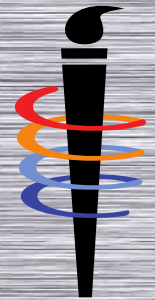
- Hodgkin and Non-Hodgkin Lymphomas
 - Lugano
 - SLL/CLL now uses Lugano and Rai

- Plasma Cell Myeloma
 - RISS staging

- Leukemia
 - Prognostic factors required for clinical care

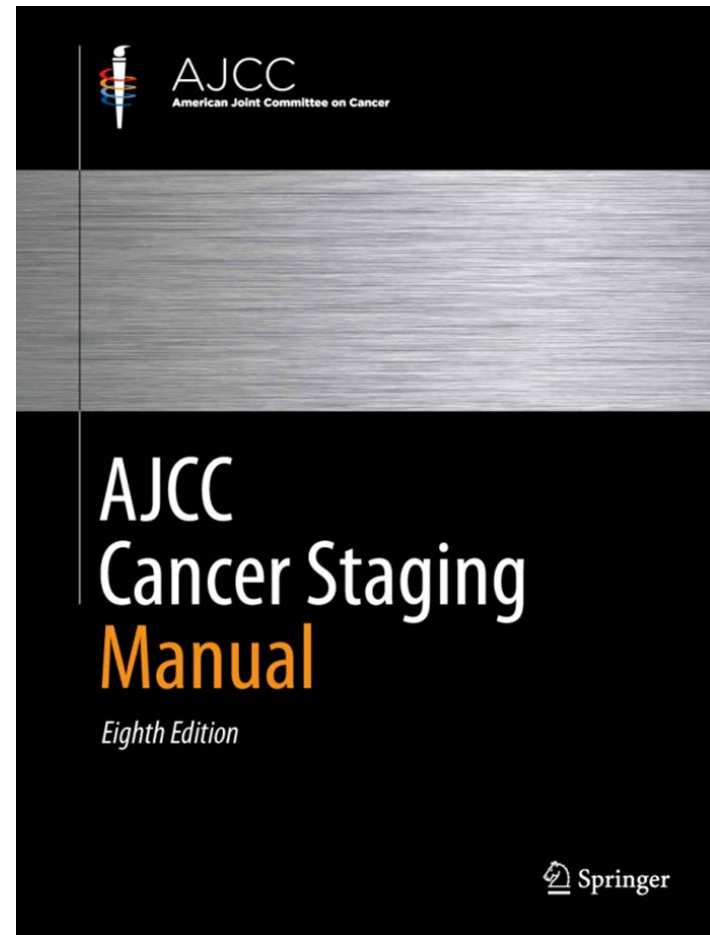


Information and Questions on AJCC Staging



AJCC Web site

- <https://cancerstaging.org>
- Ordering information
 - Cancerstaging.net
- General information
 - Education
 - Articles
 - Errata



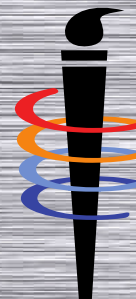
CAnswer Forum

- Submit questions to AJCC Forum
 - NEW 8th Edition Forum
 - 7th Edition Forum will remain
 - Located within CAnswer Forum
 - Provides information for all
 - Allows tracking for educational purposes

- <http://cancerbulletin.facs.org/forums/>



Summary



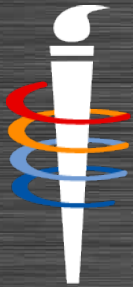
Summary

- 8th edition is a significant step forward
- Education planned for physicians and registrars
- Significant disease site changes will be communicated
- AJCC Web site provides roadmap for information
- Congratulations to Cancer Registrars on 8th edition dedication



Thank you

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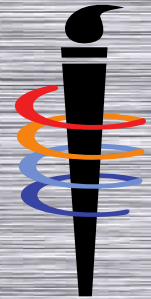
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