

AJCC 8th Edition Staging

Introduction & Descriptors

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AJCC

American Joint Committee on Cancer

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National Center for Chronic Disease Prevention and Health Promotion
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Learning Objectives

- Demonstrate purpose and approach to AJCC staging
- Examine format and expansion of Chapter 1
- Outline use of stage descriptors and guidelines
- Dissect 8th edition staging 1-page guide

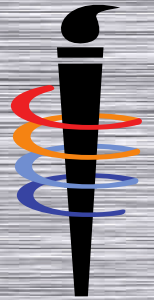


Learning Assessments

- Testing effect or retrieval practice
 - Testing yourself on idea or concept to help you remember it
- Many experts have agreed for centuries
 - Act of retrieving info over and over, makes it retrievable when needed
 - Aristotle: exercise in repeatedly recalling strengthens memory
- Why retrieval/quizzing slows forgetting, helps remembering
 - Memory is dynamic (keeps changing), retrieval helps it change
 - Test often for better results
- Quizzes
 - Pretest as part of registration
 - Quiz during lecture
 - Posttest emailed weeks later to assess retention
 - Also assesses clarity of instruction and instructor



Introduction



Purpose of AJCC Stage

- Stage is for patient care
 - Defines prognosis
 - Critical for appropriate treatment
- Stage serves as basis for
 - Clinical trial inclusion, exclusion, and stratification
 - Evaluate results of treatment
 - Facilitate exchange and comparison of info between **registries**
 - Clinical and translational cancer research
- Cohesive approach to staging provides method for
 - Clearly conveying clinical experience to others
 - Without ambiguity
 - At national and international levels



Assigning AJCC Stage for Patient Care

- Assigning AJCC stage for patient care
 - Documenting in legal medical record
- Role of managing physician
 - **Only** managing physician may assign patient's stage
 - **Only** person with access to all pertinent information
 - **Only** person who can synthesize array of physical exam & findings
- Role of pathologist and radiologist
 - Provide important T-, N-, and/or M-related information
 - May **not** assign stage



Assigning AJCC Stage in Registry

- Assigning AJCC stage for registry purposes
 - Recording stage in abstract database
 - **MAY NOT** document in legal medical record
- Role of cancer registrar
 - Documenting physician assigned stage in abstract database
 - Assigning AJCC stage in abstract database
 - When managing physician documented stage is not available
 - When only partial stage info available from physicians
 - Ensure all appropriate stage classifications in abstract
 - Clinical if cancer known prior to treatment
 - Either pathological **or** posttherapy based on qualifying treatment



Registry Specific AJCC Rules

- Cancer registry documentation and data
 - Specific **registry guidelines** throughout chapter 1
 - Document what is found
 - Do **not** adjust, interpret, change
 - Critical for researchers to have this **unaltered data**
- Rationale
 - Registry data affects future patient care
 - Altered data could negatively impact patient care
- Note to registrars on AJCC staging
 - Do not complete data items when info unclear or unavailable
 - Never prioritize completeness over accuracy



Format and Expansion – AJCC Chapter 1

- Chapter 1 “Principles of Cancer Staging”
 - New user-friendly format
 - Rules repeated so each staging classification has complete info
 - Provide **examples** and **exceptions**
- Comprehensive analysis of staging rules and nomenclature
 - AJCC-UICC Lexicon Project January 2012
 - Content Harmonization Core August 2014
 - Team of fifteen physicians
 - Line by line review over span of two years
 - Harmonization Summit September 2015
 - 60 physicians voted on rules, along with **registrars**
 - Resulted in expansion of chapter
 - Precise standardized definitions and rules for staging
 - Final chapter reviewed/edited by 7 physicians

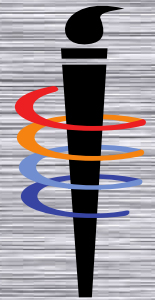


AJCC Terminology

- Stage
 - Used **only** for aggregate information resulting from T, N, and M
 - Never individual categories (no T stage)
- Classifications – time point in patient’s care continuum
 - Time frame (staging window)
 - Criteria
- Categories
 - T, N, M
 - Prognostic factors required for stage group
- AJCC Prognostic Stage Groups
 - Stage groups or stage
 - Aggregate information



Aligning Registry Data Items with AJCC



Cohesive Approach to AJCC TNM

- Aligning **registry data items** with AJCC TNM system
 - Need cohesive approach to break down barriers
 - Allow registrar to document AJCC TNM without alteration
 - Plans presented to registry community
- Existing differences hinder ability to communicate, affects
 - Registrar and physician communication
 - Researchers utilizing national databases
 - Electronic exchange between systems



Registry Data Alignment with AJCC

- Facilitates communication with physicians & researchers
 - Use same language as AJCC
 - No more registry shorthand and storage codes
 - Examples from registrar questions & physicians
 - c2 c2a c0
 - Tc2 Nc2a Mc0
 - cTc2 cNc2a cMc0
- All new AJCC 8th stage data items
 - Clinical
 - Pathological
 - Posttherapy
- Use format specified in AJCC manual, up to 15 characters
 - ypTis(DCIS)
 - pN0(mol+)
 - cM1b(0)
 - 3C (only exception, do not use Roman numerals for group)



Change in Registry Data Item for Descriptors

- Descriptor data item prior to 2018
 - Category suffix: (m)
 - Stage prefix: y
 - Stage group info for lymphoma: E, S
- Identified issues with descriptor data item
 - Confusing to mix disparate concepts in one data item
 - Poor compliance and inconsistent usage
 - Alter for 2018 by creating new items or merging into existing
- Transformation for 2018
 - Developed **new** suffix data items for T and N
 - Shifted stage prefix to new yp stage data items
 - Incorporated E into stage group, S no longer used



New Stage Data Items

- **CLINICAL STAGE**

- Clin T Clin T suffix
- Clin N Clin N suffix
- Clin M
- Clin Grade
- Clin Stage Group

- **PATHOLOGICAL STAGE**

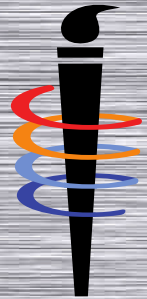
- Path T Path T suffix
- Path N Path N suffix
- Path M
- Path Grade
- Path Stage Group

- **POST THERAPY STAGE**

- Post Therapy T Post T suffix
- Post Therapy N Post N suffix
- Post Therapy M
- Post Therapy Grade
- Post Therapy Stage Group



Additional Staging Descriptors and Guidelines



N Suffix

- N suffix for method of nodal assessment
 - Applies to all stage classifications
 - Indicates limited nodal information
 - Not used if further procedures performed within stage classification
- Type of nodal assessment has
 - Implications for completeness of review
 - May affect N category assignment
- N suffix choices
 - FNA or core needle biopsy
 - Sentinel node procedure
- Applies to all disease sites



N Suffix: (sn)

- (sn) sentinel node procedure indication
- Clinical staging use
 - Diagnostic workup & before definitive surgical treatment
 - cN1–3(sn)
- Pathological staging use
 - Part of initial surgical management
 - pN1–3(sn)
 - *Note:* suffix **NOT** used if completion lymph node dissection performed as component of initial surgical management



N Suffix: (f)

- (f) FNA or core needle biopsy of node indication
- Clinical staging use
 - Diagnostic workup before treatment
 - cN1–3(f)
- Pathological staging use
 - Part of primary site surgical resection
 - pN1–3(f)
 - *Note:* suffix **NOT** used if subsequent completion lymph node dissection as component of initial surgical management



New Registry Data Item for N Suffix

- N suffix – 3 new data items
 - cN suffix
 - pN suffix
 - ypN suffix
- N suffix coding

code	label	description
sn	(sn)	Sentinel node procedure without resection of nodal basin
f	(f)	FNA or core needle biopsy without resection of nodal basin
blank	blank	No suffix needed or appropriate; not recorded



New Registry Data Item for T Suffix

- T suffix – 3 new data items
 - cT suffix
 - pT suffix
 - ypT suffix
- T suffix coding

code	label	description
m	(m)	Multiple synchronous tumors OR For thyroid differentiated and anaplastic only, Multifocal tumor
s	(s)	For thyroid differentiated and anaplastic only, Solitary tumor
blank	blank	No information available; not recorded



Guidelines – Unknown Primary Site

- No primary tumor evidence, **BUT** anatomic site suspected
- **Not** used if origin cannot be determined, **no site information**
- cT0
 - Primary tumor not identified on
 - Physical exam
 - Imaging
 - Endoscopy
 - Other diagnostic procedures
- pT0
 - No evidence of primary tumor identified
 - After surgical resection of suspected primary tumor, and
 - **Never** identified on biopsy



Grade in AJCC 8E

- Recommended grading system specified in each chapter
 - Grading system to be used by pathologist and
 - Documented in cancer registry
- Cancer registry
 - **Must** record grade as specified in disease site chapter
 - According to rules **only** in chapter 1 and disease site chapter
 - Do **NOT** use registry rules for ***new (AJCC) grade data item***



Grade Issues and Solution

- **New** grade data items for each stage classification
 - Incorporates both AJCC and standard registry coding
 - **Prioritizes AJCC** specified grade
 - Provides standard registry grade when AJCC not applicable
 - Grade tables specific for each disease site
 - Grade system based on prognostic significance
- Grade coding rules developed with surveillance partners
 - Approved by **AJCC and pathologists**
 - Medically accurate
 - Follows AJCC 8th edition Chapter 1
- Rationale for new grade data items
 - Grade data unusable in many sites by AJCC experts
 - Inconsistent grading systems used
 - Data coding rules conflicted with physician guidance



Comparison of Pathology Grading Systems

3-Grade System	4-Grade System
GX: Cannot be assessed	GX: Cannot be assessed
G1: Well differentiated	G1: Well differentiated
G2: Moderately differentiated	G2: Moderately differentiated
G3: Poorly differentiated, Undifferentiated	G3: Poorly differentiated
	G4: Undifferentiated



Pathology Criteria for Grading Systems

- G1 criteria **identical** in 3- & 4-grade systems
- G2 criteria **identical** in 3- & 4-grade systems
- G3 and G4
 - 4-grade system distinguishes criteria, separates
 - 3-grade system does **not** distinguish or **too subtle**, groups together
- Grading systems based on
 - Prognostic significance
 - Reproducible between pathologists
- 3-grade system coding
 - 1
 - 2
 - 3
- 4-grade system coding
 - 1
 - 2
 - 3
 - 4



New Cancer Registry Grade Data Item

G	G Definition
1	G1: Well differentiated
2	G2: Moderately differentiated
3	G3: Poorly differentiated, undifferentiated
9	Grade cannot be assessed (GX); Unknown; Not applicable

G	G Definition
1	G1: Well differentiated
2	G2: Moderately differentiated
3	G3: Poorly differentiated
4	G4: Undifferentiated
9	Grade cannot be assessed (GX); Unknown; Not applicable



Breast Grade

G	G Definition
1	G1: Low combined histologic grade (favorable), SBR score of 3–5 points
2	G2: Intermediate combined histologic grade (moderately favorable); SBR score of 6–7 points
3	G3: High combined histologic grade (unfavorable); SBR score of 8–9 points
L	Nuclear Grade I (Low) (in situ only)
M	Nuclear Grade II (interMediate) (in situ only)
H	Nuclear Grade III (High) (in situ only)
A	Well differentiated
B	Moderately differentiated
C	Poorly differentiated
D	Undifferentiated, anaplastic
9	Grade cannot be assessed (GX); Unknown; Not applicable



Grade for Each Stage Classification

- Grade needed for each stage classification
 - Document, even if grade not needed for stage group
 - Critical to provide information for each, not always the same
 - Follows same timeframe and criteria rules as stage
- Grade data items
 - Grade clinical – all patients if cancer known prior to treatment
 - Grade pathological – primary treatment is surgical resection
 - Grade posttherapy – neoadjuvant followed by surgical resection
- Patients will have only 1 or 2 grades coded, never all 3



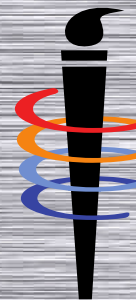
LVI: Lymphovascular Invasion

- LVI further refined for 8th edition
 - Critical to know each component in some disease sites
 - Chapter will specify use of LVI **vs.** L, V, both L & V

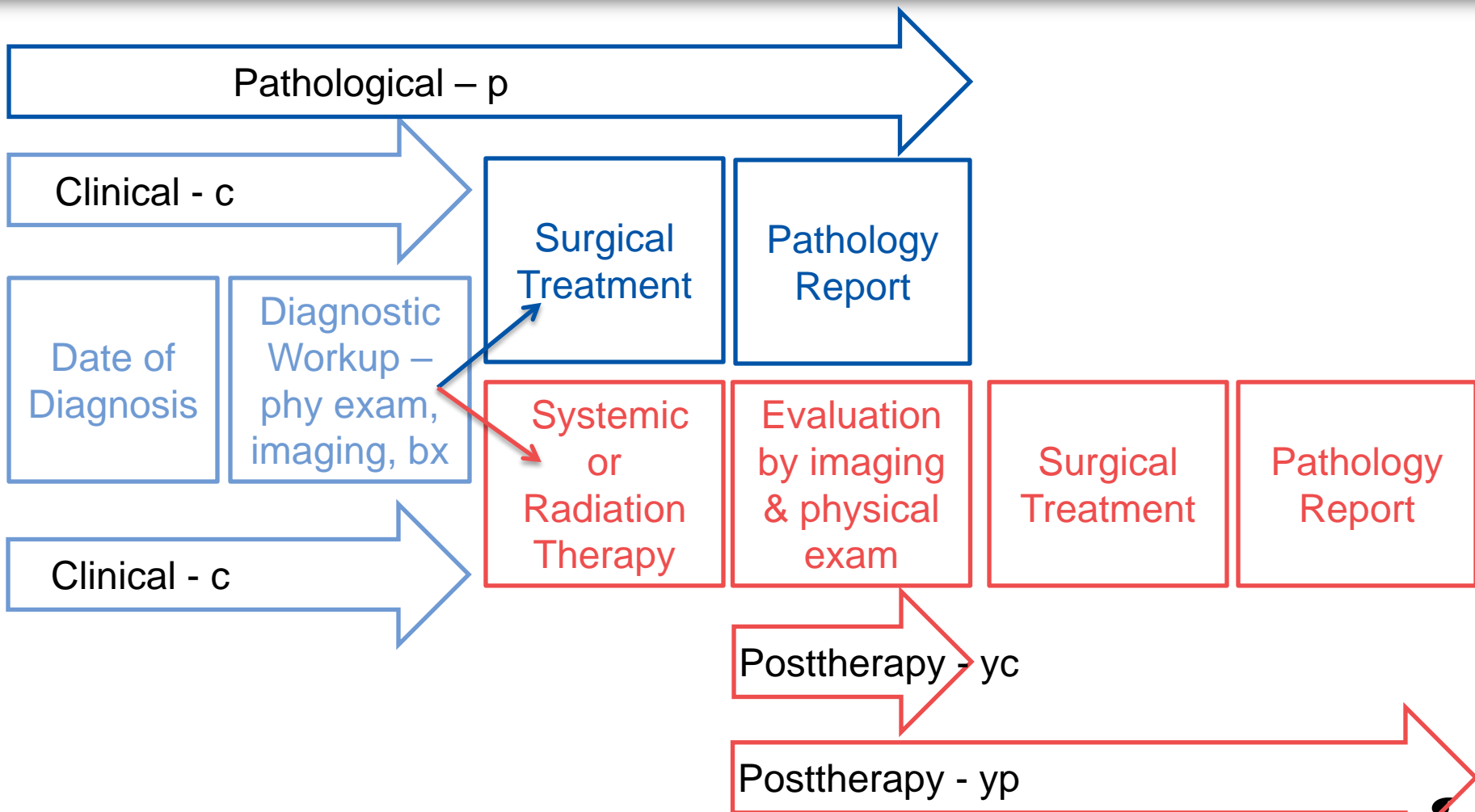
Component of LVI coding	Description
0	LVI not present (absent)/not identified
1	LVI present/identified, NOS
2	Lymphatic and small vessel invasion only (L)
3	Venous (large vessel) invasion only (V)
4	BOTH lymphatic and small vessel AND venous (large vessel) invasion
9	Presence of LVI unknown/indeterminate



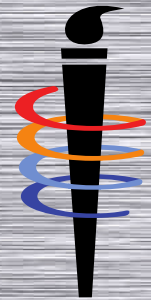
Timing is Everything



Stage Classifications



AJCC 8th Edition Staging 1-Page Guide



AJCC 8th Edition Staging: 1-Page Guide

AJCC 8th Edition Staging

- Rules and associated rationale for Eighth Edition AJCC
- General rules described in AJCC Chapter 1
- Refer to relevant disease site chapters
 - Specific allowable disease site differences
 - Stage differences necessary for appropriate medical care of patient



AJCC 8th Edition Staging: 1-Page Guide

KEY TERMINOLOGY

- **Classifications**
 - Describes points in time of care of cancer patient
 - Criteria: timeframe & specific medical assessments/practices
- **Categories**
 - T, N, M
 - Any non-anatomic factors needed to assign stage group
- **Stage group**
 - Easily communicated summary of categories
 - Groups patients with similar prognosis
- **Assigning stage**
 - AJCC stage assigned by managing physician
 - Based on data from all relevant sources



AJCC 8th Edition Staging: 1-Page Guide

CLINICAL STAGING CLASSIFICATION RULES

- **General: clinical classification**
 - From date of diagnosis until definitive treatment, or within 4 months
- **T category**
 - Hx, symptoms, phy exam, labs, imaging, endoscopy, bx, surg exp
- **N category**
 - Phy exam, imaging, FNA/core needle bx, excisional bx, sentinel node bx
- **M category**
 - Clinical history, physical exam, imaging, FNA/biopsy
- **Rationale**
 - Diagnostic bx of primary/nodes/distant mets = clinical classification
 - Path report on biopsy is **not** pathological staging
 - cN even if based on lymph node bx
 - Clinical M category is
 - cM if based on history, physical exam and imaging
 - pM1 if based on biopsy proven involvement



AJCC 8th Edition Staging: 1-Page Guide

PATHOLOGICAL STAGING CLASSIFICATION RULES

- General: pathological classification
 - Clinical stage, op findings, path report resected specimen
- T category
 - Must meet definitive surgical treatment specified in chapter
- N category
 - Microscopic assessment of 1 node required, include imaging & dx bx
- M category
 - History, physical exam, imaging, FNA/biopsy, resection
- Rationale
 - Include all findings even if not microscopically proven
 - Pathological staging based on synthesis of all info
 - Not solely on resected specimen pathology report
 - Pathologist cannot assign final stage
 - Pathological M category is
 - cM if based on physical exam and imaging
 - pM1 if based on bx proven involvement, “pM0” NOT a valid category



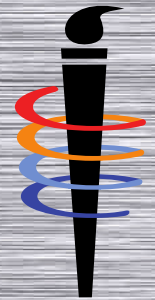
AJCC 8th Edition Staging: 1-Page Guide

POST NEOADJUVANT THERAPY STAGING CLASSIFICATION RULES

- yc Clinical
 - Includes physical exam and imaging assessment
 - *After* neoadjuvant systemic/radiation therapy
- yp Pathological
 - Includes all information from yc staging,
 - Surgeon's operative findings and
 - Pathology report from resected specimen

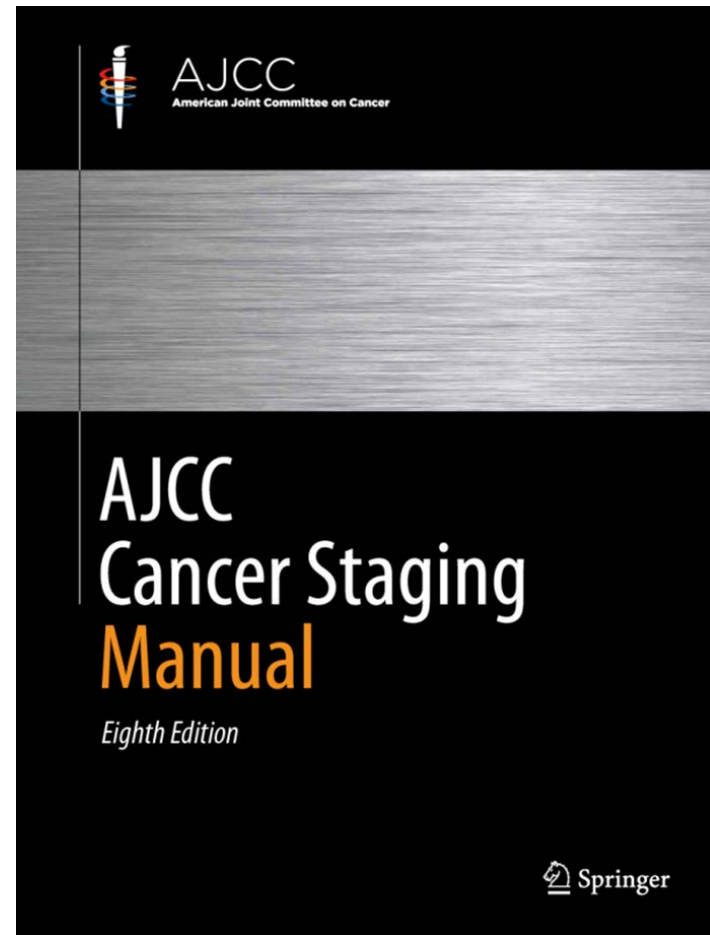


Information and Questions on AJCC Staging



AJCC Web site

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



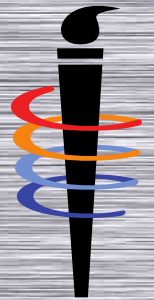
CAnswer Forum

- 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

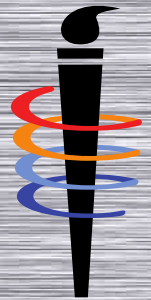
- <http://cancerbulletin.facs.org/forums/>



Quiz



Summary



Summary

- Identify purpose and cohesive approach to AJCC staging
- Navigate new format and expansion of Chapter 1
- Comprehend use of stage descriptors and guidelines
- Identify key information of 8th edition staging 1-page guide



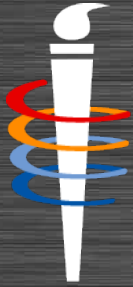
Eighth Edition Webinar Schedule

Webinar Topic	Date	Time
Introduction & Descriptors	Thursday, May 31, 2018	1 pm – 2 pm CDT
Minor Rule Changes	Tuesday, May 15, 2018	1 pm – 2 pm CDT
Major Rule Changes	Tuesday, March 20, 2018	1 pm – 2 pm CDT
CAnswer Forum & Staging Questions	Tuesday, April 17, 2018	1 pm – 2 pm CDT
Head and Neck Staging	Wednesday, July 25, 2018	1 pm – 2 pm CDT
Breast Staging	Tuesday, September 11, 2018	1 pm – 2 pm CDT



Thank you

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