


Lesson 7
Module I Recap Webinar with Quiz

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AJCC
American Joint Committee on Cancer
Validating science. Improving patient care.

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Overview


- Provide an overview of AJCC staging
 - Background materials to explain
 - Why staging is performed
 - How staging is used
 - Broad discussion of staging
 - Classifications
 - T, N, and M categories
 - Stage group
 - Terminology differences
 - Physician manuals and patient care
 - Registry manuals and surveillance community
 - Link to additional material
 - Webinar with quiz



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Learning Objectives

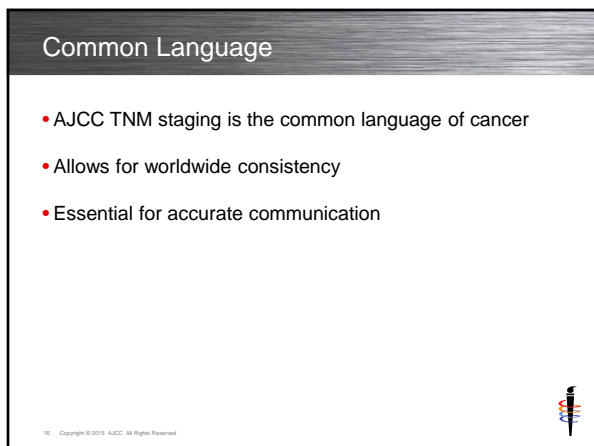
- Describe intent and purpose of AJCC staging
- Identify uses of AJCC staging
- Demonstrate correct usage of classifications
- Recognize basic principles of T, N, and M categories
- Recognize meaning of stage groups
- Analyze AJCC manual and physician terminology intent
- Utilize additional materials
- Evaluate self-guided learning through webinar and quiz



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Reasons for Assigning Stage


- Discuss case with multidisciplinary cancer care team
 - Primary care physician
 - Surgeon
 - Radiologist
 - Pathologist
 - Medical Oncologist
 - Radiation Oncologist
- Choose appropriate diagnostic workup and treatment
 - Guidelines include T, N, M, and stage group criteria
- Analyze treatment results for recurrence and survival
- Data analysis of various factors stratified by stage



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Role in Patient Care and Research


- Patient care – stage needed to
 - Discuss necessary diagnostic workup
 - Communicate extent of cancer with the patient
 - Describe appropriate treatment options
 - Help patient make informed decisions
 - Provide patient with their prognosis, recurrence risk and survival
- Research – stratify analysis by stage
 - Diagnostic workup
 - Treatment
 - Pathology specifics, biomarkers, other test results
 - Recurrence
 - Survival



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Uses of Stage

- Patient care
 - Aids in communication between physicians for patient care
 - Provides patients with evaluation of their cancer and prognosis
- Guidelines
 - Diagnostic workup criteria
 - Stratifies patients for treatment decisions
- Research, clinical trials, and surveillance community
 - Criteria to stratify patient participation
 - Develop study arms for treatment
 - Groups patients for outcomes and survival
 - Evaluate incidence, treatment and survival




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Lesson 2
Purpose of Classifications and Use



Classification


- Classification definition
 - Point in the care of cancer patient
- Classification criteria
 - Timeframe
 - Specific medical assessments and practices
 - Differences based on anatomy, histology, and biology



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Purpose of Classifications


- Multiple points in the care of cancer patients
 - Identifies points in time
 - Differentiates between those points in time
- Valid data comparisons need these distinctions
 - Cannot compare patients with different classifications



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Classifications and Basic Criteria


- Clinical – diagnosis, workup, until start of first treatment
- Pathologic – diagnosis, workup, definitive surgical resection operative findings, pathology report of resected specimen
- Postneoadjuvant Therapy – after neoadjuvant therapy, and after surgical resection following neoadjuvant therapy
- Retreatment – recurrence or progression
- Autopsy – postmortem exam when cancer not evident prior to death



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Use of Classifications

- Compare similar timeframes between patients
- Type of information and specificity varies by classifications
 - Physical exam and imaging
 - Limited microscopic exam of tissue for diagnosis
 - Extensive microscopic exam of resected specimen
- Assess response to neoadjuvant therapy
 - Compare postneoadjuvant therapy to clinical
- Compare various points of care for a patient
 - Diagnostic workup
 - Treatment
 - Recurrence/retreatment



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Lesson 3

T, N, M Categories Used to Describe the Cancer Involvement



Categories


- Categories are used to describe the cancer
- Anatomic extent or involvement by cancer is the foundation
- Additional non-anatomic factors as proven necessary
- Defined and modified based on
 - Clinical data
 - Biological properties
 - Anatomic site, tissue structure
 - Histologic type
 - Prognostic information for outcomes and survival



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Categories


- Category
 - Refers to tumor, nodes, and metastasis
 - Also refers to each of the T's, N's and M's
- For example, T2 is a category
 - Includes multiple criteria such as size and extent
 - T2 is not considered a value
 - Value would be the size, extension, etc, that makes up the criteria
 - AJCC does not use the word "value"



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T Category


- Tumor – primary tumor
- Criteria for the category include
 - Size of the cancer
 - Contiguous spread or extension
- Varies by anatomic site
- Important to understand anatomy
 - Different tissue layers of the site
 - Landmarks and named parts of the site
 - Relationship to neighboring organs and structures



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N Category


- **Node** – regional draining lymph nodes
- **Criteria for the category include**
 - Presence or absence of cancer
 - Extent of cancer
 - Number of nodes involved
 - Location of nodes involved
- **Varies by anatomic site**
- **Important to understand anatomy**
 - Location of lymph nodes including ipsilateral & bilateral
 - Structure of nodes
 - Terminology: extracapsular, matted, totally replaced nodes where the nodal architecture is no longer evident



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M Category


- **Metastasis** – distant metastasis
- **Criteria for the category include**
 - Presence or absence of cancer
 - Involvement of
 - Specific structures
 - Number of structures
- **Varies by anatomic site**
- **Important to understand anatomy**
 - How cancer spreads by
 - Vascular channels
 - Lymphatics beyond the defined regional nodes
 - Different risk based on
 - Organs involved
 - Organ structure involved – capsule vs. parenchyma



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Additional Categories

- **Other categories are required for some sites**
 - Used with T, N, and M
 - Level of importance equal to those categories
- **Categories include**
 - Histology
 - Age
 - Location
 - Grade
 - Mitotic rate/count
 - Prognostic scoring index for risk factors
 - PSA
 - Gleason
 - Serum tumor markers (AFP, hCG, LDH)
 - Peripheral blood involvement




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Additional Categories

Chapters utilizing additional categories

- 8. Thyroid
 - Histology, age
- 10. Esophagus & Esophagogastric Junction
 - Histology, location, grade
- 13. Appendix
 - Histology, grade
- 16. GIST
 - Mitotic rate
- 27. Bone
 - Grade
- 28. Soft Tissue Sarcoma
 - Grade
- 36. Corpus Uteri
 - Histology
- 39. Gestational Trophoblastic Tumors
 - Prognostic scoring index
- 41. Prostate
 - PSA, Gleason
- 42. Testis
 - Serum Tumor Markers (AFP, hCG, LDH)
- 57. Primary Cutaneous Lymphomas
 - Peripheral blood involvement

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Lesson 4


Stage Groups Put Together Cases With Similar Prognosis



Purpose of Stage Groups


- Reproducible and easily communicated summary of staging information
- Patient care
 - Helps patients understand the extent of their disease
 - Communicate treatment and prognosis with patients
 - Ease of communication between physicians
- Data analysis
 - Larger numbers of similar patients
 - Statistically significant

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Creation of Stage Groups


- Basic premise – patients with similar prognosis
- Stage group made up of these categories
 - T
 - N
 - M
 - Can include other additional categories
- Group patients with similar prognosis
 - Creates groups with specific category criteria
 - Consolidates many combinations into a few groups
- Groups may contain
 - Variance within categories, T1 N0 M0 and T2 N0 M0
 - Variance between categories, T1 N1 M0 and T2 N0 M0
 - As long as their outcomes are similar



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Designation of Stage Groups


- Roman numerals I through IV
 - Higher numbers indicate increasing severity
 - 0 (zero) also used
- General meaning of stage groups, exceptions allowed
 - 0 – in situ
 - I – small tumors, less deeply invasive, negative nodes
 - II – increasing tumor and nodal extent
 - III – increasing tumor and nodal extent
 - IV – distant metastasis
- Subsets
 - Expand groupings using A, B, C
 - More refined prognostic information



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Meaning of Stage Groups


- Stage groups have prognostic meaning
 - Must have statistically significant separation between stages
 - Higher number stages must have worse prognosis than lower numbers
 - Not just split of cases between numbers I through IV
 - Not just a range of better to worse and patients fit on that continuum
- All cases within group have same outcome
 - Even though their burden of disease may vary



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Changes in Stage Groups

- Category combinations moved when outcomes change
- Must maintain separation between stages for outcomes analysis
- Changes may be due to
 - Improved clinical staging techniques better define the disease
 - Improvements in treatment change prognosis in certain types of involvement, for example
 - New surgical techniques for local extent
 - New systemic drugs for nodal involvement




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Lesson 5 Terminology – Difference Between Physician and Registrar



Terminology Differences


- Writing style of AJCC manual
 - Conversational
 - Journal or book style
 - Not a legal document where words are absolutely precise
 - General guidelines
 - Most common scenarios
 - Not always strict rules
 - Allow for variability seen in medical practice
- Writing style of registry manuals
 - Attribute specific meaning to words
 - Strict rules
 - Need for consistency in data collection
 - Parse words for definitive meaning
 - Definitions constructed by registry community
 - Not necessarily consistent with dictionary definitions



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No Ambiguous Terminology for AJCC


- Cannot use registry ambiguous terminology lists from
 - FORDS
 - SEER manuals
 - Collaborative Stage
 - Summary Stage
 - Out of date manuals, standards
 - Cancer Program Manual 1980's
 - Cancer Program Standards 1990's, early 2000
 - Data Acquisition Manual (DAM)
 - Registry Operations and Data Standards (ROADS)
 - Local, state, regional, and national documentation
 - Personal memory of past use



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Examples: Why NOT to Use


- Example of term definitions
 - 1996 Volume I: Cancer Program Standards defined terms
 - Must, shall, required: mandatory and acceptable
 - Should: commonly accepted, allow effective alternatives
 - May: acceptable alternative but not preferred
- If physician uses “may”
 - Do not apply definition from your memory of other manuals
- Use common sense or dictionary definition for term
 - Permission requested or granted
 - Usual or typical interpretation of the word
- If employer says “you may have the day off”
 - You should not take the day off, it is not preferred?
 - You will take the day off



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Ambiguous Terms – A Secret Club


- Secret handshake that only registrars know
- No-one can join our exclusive secret club
 - Isolates registrars from medical world
 - Isolates registrars from reality
- Not in keeping with
 - Current medical practice
 - Standard dictionary definitions
 - General usage of these terms
 - Common phrasing by physicians
- Jeopardizes communication with physicians
 - Physicians are not aware of these definitions
 - Must be used by every physician worldwide for accuracy
 - Unrealistic to teach these arbitrary definitions to physicians



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Ambiguous Terms Threaten Registrars


- Use of ambiguous terminology
 - Computer could identify ambiguous terminology
 - Automated data collection based on terminology
 - Replace registrar jobs
 - Threaten registrars place in the cancer team
- Value of registrars is their ability to
 - Interpret terminology
 - Understand the context
 - Decipher the meaning in light of all information
 - Perform critical thinking
- Registrars are capable – they do not need this crutch
- Using the terms can lead to wrong conclusions



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Intent vs. Terminology

- Cannot use one word or one report in isolation
 - Assess intent, interpretation, perception
 - Do not over analyze or parse word choices
- Need to evaluate the whole picture
 - Reports list all abnormal findings, not just cancer involvement
 - Understand other medical causes for abnormalities
 - Look for further testing ordered to investigate
- Review
 - Consults
 - Guidelines from NCCN, ASCO, others
 - Treatment plans, which can infer stage
- Rely on physician's medical judgment



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Pragmatism


- Not practical for worldwide medical community to agree on
 - Definitions of imprecise words
 - Usage of descriptions for equivocal findings
 - Use consist word style, not allowing variation by
 - Region of the country or world
 - Medical training
 - Personal style
- Registrars are capable of
 - Understanding the intent
 - Analyzing the information
 - Applying critical thinking
 - Deducing the physician's conclusions
 - Asking questions of the physician when there is doubt



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AJCC Terminology


- Interpretation of 7th edition writing style
 - Describes usual or common case scenario
 - Describes guidelines and best practice
 - Allows for variation seen in medical practice
 - Do not apply registry definitions
- Ambiguous terminology lists are not valid or necessary
 - CANNOT use for AJCC staging



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Lesson 6


Link to AJCC Staging Curriculum
“What is Cancer Staging”



Link to Additional Material

- AJCC Staging Curriculum
 - Series of staging presentations for different audiences
- What is Cancer Staging
 - Presentation designated for cancer patients and the public

WHAT IS CANCER STAGING



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