


AJCC 7th Edition Staging
Disease Site Webinar
Melanoma of Skin

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Overview


- Highlights of disease site chapter
- Uniqueness, differences and exceptions based on
 - Anatomy
 - Diagnostic workup
 - Treatment
 - Outcomes
- Cautions and reminders for staging



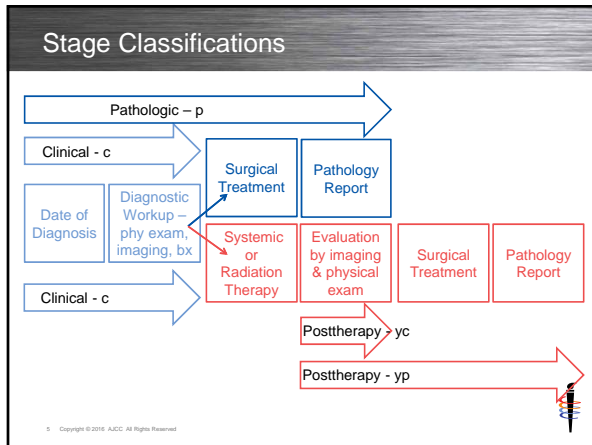
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Learning Objectives

- Recognize differences based on disease site
- Examine criteria for assigning stage
- Analyze effect of uniqueness on staging
- Employ critical thinking in using physician documentation
- Utilize appropriate guidelines to gain knowledge
- Identify resources for AJCC staging



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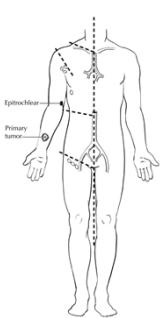


Anatomy Affecting Stage



Regional Lymph Nodes

- Defined by drainage areas of primary tumor
- Confined to 1 nodal basin or 2 contiguous nodal basins
- Midline tumors may drain in 2 different directions



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Classification Issues




Clinical and Pathologic Staging

- Classification rules for melanoma on AJCC website
 - Critical Clarifications for Registrars <https://cancerstaging.org>
 - Download and review
 - Excerpts included on following slides

Highlights

- Clinical stage
 - Includes all types of initial excision of lesion
 - **Not** changed based on surgical treatment information
- Pathologic stage
 - Must have wide excision or re-excision – definitive treatment
 - Shave bx **NOT** treatment, not pTX – cannot be assigned




AJCC 7e Melanoma Staging

The following rules and rationale were vetted by the entire AJCC Melanoma Expert Panel including UICC representatives at the November 17, 2015 meeting.

The differences allowed from the Chapter 1 rules are slight and based on appropriate medical care of the patient.

<https://cancerstaging.org/SiteAssets/Pages/default/AJCC%20Melanoma%20Staging.pdf>




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AJCC 7e Melanoma Staging – Clinical

Rules

- **General:** includes information from the time of the diagnosis up until the definitive treatment
- **T category** – excision of the primary tumor which may include shave bx, punch bx, incisional bx, excisional bx, or complete excisional bx, called microstaging
- **N category** – physical exam and imaging only
- **M category** – follows Chapter 1




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AJCC 7e Melanoma Staging – Clinical

Rationale of differences from Chapter 1 and rules

- General rules still apply
 - Since full excision of lesion is proper medical procedure for suspected melanoma lesion since depth is critical knowledge
 - Transecting melanoma difficult to ascertain accurate thickness, need slight rule difference in melanoma where most or all tumor removed through diagnostic biopsy
- Initial biopsy not considered definitive treatment
- Chapter 1 states:
 - Clinical stage assigned info prior to treatment not changed by subsequent info after definitive therapy (page 10 AJCC 7e manual)
- N category restricted to physical exam and imaging nodes




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AJCC 7e Melanoma Staging – Pathologic

Rules

- **General:** includes all information from the time of diagnosis (clinical stage), with the surgeon's operative findings, and the pathology report from the resected specimen
- **T category** – now includes the definitive treatment specimen, as well as the clinical biopsy information
- **N category** – sentinel node biopsy, partial lymphadenectomy, or complete lymphadenectomy along with the information from the clinical exam and imaging
- **M category** - follows Chapter 1

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AJCC 7e Melanoma Staging –Pathologic

Rationale of differences from Chapter 1 and rules

- Wide-excision or re-excision of melanoma is considered definitive treatment
- This treatment information cannot be used to change clinical stage due to the Chapter 1 rule cited earlier
- N category for pathologic staging follows Chapter 1 rules

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Assigning T, N, M, Stage Group



T Category

- Do not assign based on Clark level
 - Clark level is no longer used
 - Level is less reproducible among pathologists
 - Levels are open to interpretation by pathologists
 - Does not reflect prognosis as accurately as thickness
- Do not assign based on extension into other structures
 - Direct extension not used for staging
 - Cartilage
 - Skeletal muscle
 - Bone
 - Other subcutaneous tissue


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T Category

- Skin thickness rationale
 - Skin thickness varies on different parts of the anatomy
 - Skin thickness varies by person
 - Each Clark level is not of uniform thickness
 - Extension into other structures is not same thickness
 - Example: wrist compared to heel skin thickness
 - Therefore skin thickness is critical
- Does **NOT** affect assignment of T category
 - Clark level
 - Direction extension into other structures
- **Must** have clear statement on ulceration
 - **Cannot** presume no ulceration if not stated
 - Determined by histopathological exam **only**

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T Category

Primary Tumor (T)

TX Primary tumor cannot be assessed (e.g., curettaged or severely regressed melanoma)

T0 No evidence of primary tumor

Tis Melanoma in situ

T1 Melanomas 1.0 mm or less in thickness

T2 Melanomas 1.01–2.0 mm


T3 Melanomas 2.01–4.0 mm

T4 Melanomas more than 4.0 mm

Note: a and b subcategories of T are assigned based on ulceration and number of mitoses per mm² as shown below:

T classification	Thickness (mm)	Ulceration Status/Mitoses
T1	≤1.0	a: w/o ulceration and mitosis <1/mm ²
		b: with ulceration or mitoses ≥1/mm ²
T2	1.01–2.0	a: w/o ulceration
		b: with ulceration
T3	2.01–4.0	a: w/o ulceration
		b: with ulceration
T4	>4.0	a: w/o ulceration
		b: with ulceration

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N Category

- No biopsy of nodes allowed for clinical staging
 - Cannot have subcategories of a & b, or ITCs

- No lower threshold to define node positive for pN
 - Any tumor cells in the node make it a positive node
 - Even ITCs are considered positive nodes

- Definitions of N2c and N3 categories
 - Satellites: tumors around a primary tumor
 - In transit: tumors between primary tumor and nodal basin



N Category

Regional Lymph Nodes (N)

NX Patients in whom the regional nodes cannot be assessed (e.g., previously removed for another reason)

N0 No regional metastases detected


N1-3 Regional metastases based upon the number of metastatic nodes and presence or absence of intralymphatic metastases (in transit or satellite metastases)

*Micrometastases are diagnosed after sentinel lymph node biopsy and completion lymphadenectomy (if performed).

**Macrometastases are defined as clinically detectable nodal metastases confirmed by therapeutic lymphadenectomy or when nodal metastasis exhibits gross extracapsular extension.

Note: N1-3 and a-c subcategories assigned as shown below:


N Classification	No. of Metastatic Nodes	Nodal Metastatic Mass
N1	1 node	a: micrometastasis* b: macrometastasis**
N2	2-3 nodes	a: micrometastasis* b: macrometastasis** c: in transit met(s)/satellite(s) without metastatic nodes
N3	4 or more metastatic nodes, or matted nodes, or in transit met(s)/satellite(s) with metastatic node(s)	



M Category

- Serum LDH for distant mets
 - Recommended to have multiple tests for verification
 - Not mandatory

- Mets to skin and subcutaneous
 - Must be distant skin
 - Must be distant soft tissue




M Category

Distant Metastasis (M)
M0 No detectable evidence of distant metastases
M1a Metastases to skin, subcutaneous, or distant lymph nodes
M1b Metastases to lung
M1c Metastases to all other visceral sites or distant metastases to any site combined with an elevated serum LDH

Note: Serum LDH is incorporated into the M category as shown below:

M Classification	Site	Serum LDH
M1a	Distant skin, subcutaneous, or nodal mets	Normal
M1b	Lung metastases	Normal
M1c	All other visceral metastases	Normal
	Any distant metastasis	Elevated


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AJCC Staging Rules

- Standard AJCC staging rules apply if no exceptions noted
- AJCC Curriculum for Registrars
 - Utilize this resource for staging rules
 - Slides available for download
 - Recordings available to watch at any time
- Refer to AJCC website for more information and education

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Case Scenarios



Case #1 – Diagnostic Workup


- History/Chief Complaint
 - 48-year-old female presents for mole removal. Noticed flaky superficial skin lesion left forearm 3-4 months ago. Patient denies personal or family h/o skin cancer.
- Physical Exam
 - Skin: 5 mm flaky, mildly pinkish macule on dorsal left forearm with regular, symmetric borders
- Procedure
 - 4/19 Shave biopsy of lesion forearm up to 0.5 cm x 1 cm
- Pathology Report
 - Malignant melanoma, Breslow depth 0.24 mm, Clark level II, no ulceration, mitotic index 1 per square millimeter
 - Pathologic stage pT1b NX MX
 - Lesion extends to peripheral edge of biopsy. Excision with appropriate margins is necessary.



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Case #1 – Clinical Staging


- Physical exam
 - Size and description of flaky, pink, symmetric borders do not play a role in staging
 - No comment on regional nodes is significant
- Shave biopsy
 - Microstaging used to assign clinical stage
 - Not considered definitive treatment
- Pathology report
 - Breslow depth, ulceration, and mitotic index are key
 - Clark level is not used
 - Pathologist cannot assign stage, provides helpful hints
 - Pathologist should not have called this a pathologic stage



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Case #1 – Clinical Staging Answer


- cT1b
 - Breslow depth is ≤ 1 mm
 - No ulceration
 - Mitoses $\geq 1/\text{mm}^2$
 - Clinical T, not pathologic T, diagnostic workup microstaging
- cN0
 - No mention of nodal involvement on exam
 - Do not use pathologist's NX
- cM0
 - No signs or symptoms of mets
 - Do not use pathologist's MX, MX does not exist
- Stage IB



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Case #1 – Treatment


- History/Chief Complaint
 - Shave biopsy performed by PCP, referred to dermatology for wide local excision in office under local anesthesia.
- Operative Report
 - 5/13 Wide local excision of forearm lesion
- Pathology Report
 - Skin, left forearm, excision: Residual, malignant melanoma. Surgical margins negative. Prior biopsy site changes.
 - Comment: Residual malignant melanoma is all in-situ. Patient's prior shave biopsy from left dorsal forearm was reviewed in conjunction with this case.



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Case #1 – Pathologic Staging


- Surgery
 - Patient had surgical resection qualifying for pathologic staging
 - Must have re-excision or wide excision for treatment
- Clinical staging information
 - cT1b cN0 cM0
- Operative Report
 - No additional info
- Pathology Report
 - Residual melanoma in situ
 - Surgical margins don't affect the staging



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Case #1 – Pathologic Staging Answer


- pT1b
 - Clinical staging information
 - Breslow depth is ≤ 1 mm
 - No ulceration
 - Mitoses $\geq 1/\text{mm}^2$
 - Residual melanoma in situ
- pNX
 - No microscopic exam of a node
- cM0
 - No signs or symptoms of mets
- Stage unknown, cannot be assigned



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Case #2 – Diagnostic Workup


- History/Chief Complaint
 - 76-year-old female with increasing lethargy, anorexia and weight loss. Mass on left upper hand present for years. Mass recently developed foul-smelling discharge coming from the base.
- Physical Exam
 - Musculoskeletal: 10 cm mass over left upper extremity laterally with white base peduncle and appears fungating
- Imaging
 - Chest x-ray – patchy infiltrates of uncertain age
 - CT head – focal infarction involving left occipital lobe
 - CT pelvis – degenerative changes
 - CT spine – mild compression deformities
- Procedure
 - 11/24 Biopsy left arm mass
- Pathology Report
 - Malignant melanoma, 2.30 mm depth of invasion.



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Case #2 – Clinical Staging


- Physical exam
 - Size and description of white base peduncle, fungating with discharge do not play a role in staging
 - No comment on regional nodes is significant
- Biopsy
 - Microstaging used to assign clinical stage
 - Not considered definitive treatment
- Pathology report
 - Depth of invasion
 - Ulceration is missing – CAP protocol element
 - CAP protocol Note E explains criteria for ulceration
 - Multiple detailed criteria to meet standard for ulceration



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Case #2 – Clinical Staging Answer


- cT3
 - Depth of invasion, thickness, is 2.01-4.00 mm
 - No information on ulceration in pathology report
 - **Cannot assign a or b for ulceration status**
 - **Must** have clear statement
 - **Cannot** code “no ulceration” based on lack of statement
- cN0
 - No mention of nodal involvement on exam
 - Physician would have examined/stated involvement if present
- cM0
 - No signs or symptoms of mets
- Stage unknown, cannot be assigned



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Case #2 – Treatment


- Because of the multiple strokes evident on CT scan and profound debility with weakness, the family wants comfort care in the home with home support



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Case #2 – Pathologic Staging


- No surgical treatment
- Patient does not qualify for pathologic staging



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Case #2 – Pathologic Staging Answer

- No T, N, M, or stage group may be assigned
- All categories left blank – does not qualify for staging
- Stage group may be coded as 99 for cancer registries




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Information and Questions
on AJCC Staging



AJCC Web site


- <https://cancerstaging.org>
- Cancer Staging Education **Registrar menu** includes
 - Timing is Everything – stage classification timeframe graphic
 - Presentations
 - Self-study or group lecture materials
 - Registrar's Guide to Chapter 1, AJCC Seventh Edition
 - Explaining Blanks and X, Ambiguous Terminology and Support for Staging
 - AJCC T, N, and M Category Options for Registry Data Items in 2016
 - AJCC Curriculum for Registrars
 - 4 free self-study modules of increasing difficulty on staging rules
 - Each module consists of 7 lessons, including recorded webinar with quizzes



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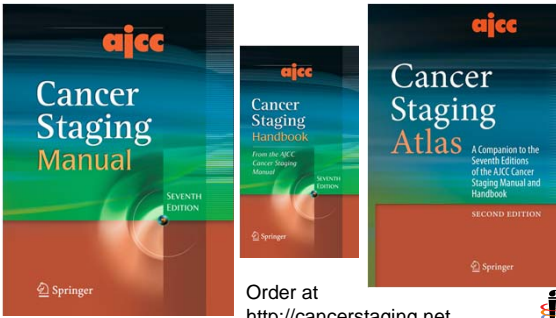
AJCC Web site

- <https://cancerstaging.org>
- Cancer Staging Education **Physician menu** includes
 - Articles
 - 18 articles on AJCC staging in various medical journals
 - Webinars
 - 14 free webinars on staging rules and some disease sites
- Cancer Staging Education **General menu** includes
 - Staging Moments
 - 15 case-based presentations in cancer conference format to promote accurate staging with answers and rationales



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AJCC Cancer Staging Manual and Atlas




Order at
<http://cancerstaging.net>

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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/>



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Summary



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Summary

- Recognize differences based on disease site
 - Examine criteria for assigning stage
 - Effect of uniqueness of anatomy, workup, treatment
- Employ critical thinking in using physician documentation
 - Understanding current standard medical practice
 - Interpretation of available information
- Utilize guidelines available to registrars to gain knowledge
- Identify resources for AJCC staging
 - Information and guidance
 - Obtain answers to questions to learn staging
 - Understand rationale to apply to future cases
 - Not just an answer for today's case



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Thank you

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