


AJCC 8th Edition Staging

Breast Staging

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American Joint Committee on Cancer
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Learning Objectives


- Select appropriate stage group table
- Examine prognostic stage group criteria
- Inspect clarifications for assigning categories
- Identify changes in breast staging



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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




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Selecting Appropriate Stage Group Table



Anatomic Stage Groups


- May **never** use anatomic stage group table
 - Even if prognostic factor categories are missing
 - Even if stage group will be unknown
 - Will skew stage group data
- **ONLY** for global regions where biomarker tests unavailable
- Cancer registries in U.S. **must** use prognostic tables



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Stage Group Tables


- Clinical prognostic stage group table
 - Used for all patients with diagnostic workup for ca
- Pathological prognostic stage groups
 - Used when surgical resection is initial treatment
 - Does **not** apply to surgical resection following neoadjuvant therapy
- No stage **group** table for posttherapy staging



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Genomic Profiles in Staging

- Other (non-Oncotype Dx) genomic profiles/multigene panels
 - Only used for patient care
 - Because Level I data not available at this time
 - These profiles **not** used for assigning prognostic stage
- Specific chapter wording for other multigene panels:
 ...low-risk score/range, regardless of T size, places the tumor into the same prognostic category as T1a–T1b N0 M0.




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Genomic Profiles in Staging

- Pathological prognostic staging with Oncotype Dx score <11
 - Modify stage group to IA as indicated
 - Assign with Genomic Profile for Pathologic Prognostic Staging table

And TSM Is...	And Grade Is...	And HER2 Status Is...	And ER Status Is...	And PR Status Is...	Then the Pathological Prognostic Stage Group Is...
T1 N0 M0	Any	Negative	Positive	Any	IA
T2 N0 M0					

- Other genomic profiles used to guide patient care
 - May **not** be used at this time to modify stage group
 - Assign using Pathological Prognostic Stage table
 - Do **not** use genomic profile table




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Scenario

- Pt with 21mm UOQ tumor and negative axilla. Ductal ca, SBR 6 points, HER2 neg, ER/PR positive, breast bx. Lumpectomy and SLNB showing 21mm tumor, SBR 7 points, 3 sentinel nodes negative.
- Clinical: cT2 cN0 cM0 Gr2 HER2- ER/PR+ stage grp IB
- Pathological: pT2 pN0(sn) cM0 Gr2 HER2- ER/PR+ stage grp IA
- Note different stage groups for clinical and pathological

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Prognostic Stage Group Criteria



Grade Category in Stage Group

- **Must** be Nottingham for invasive ca, **not** nuclear grade
 - Assign G1 – G3
- Nuclear grade
 - Just one of three components of Nottingham
 - **Least reproducible** of three components
 - Must **not** use for grade category to assign stage group
 - If nuclear grade, code as A-D, stage group **not** assigned

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Grade for Invasive & *In Situ*

	G	G Definition
Invasive	GX	Grade cannot be assessed
	G1	Low combined histologic grade (favorable), SBR score of 3–5 points
	G2	Intermediate combined histologic grade (moderately favorable); SBR score of 6–7 points
	G3	High combined histologic grade (unfavorable); SBR score of 8–9 points
<i>In Situ</i>	GX	Grade cannot be assessed
	G1	Low nuclear grade
	G2	Intermediate nuclear grade
	G3	High nuclear grade

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Biomarkers for Stage Group

Collection of Biomarkers (Hormone receptor assays and HER2 assay)

The Expert Panel determined that all invasive carcinomas should have estrogen receptor (ER), progesterone receptor (PR), and human epidermal growth factor receptor 2 (HER2) status determined by appropriate assays whenever possible.

- Biomarkers consist of
 - Hormone receptors ER & PR
 - HER2
- Assay results for assigning stage
 - Most often only tested on biopsy specimen
 - If retested on resection specimen, positive results take priority
 - If bx specimen not tested, use resection tests for clinical staging

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Scenario

- Pt with 21mm UOQ tumor and negative axilla. Ductal ca, nuclear gr 2, breast bx.
Lumpectomy and SLNB showing 21mm tumor, SBR 7 points, 3 sentinel nodes negative, HER2 neg, ER/PR positive.
- Clinical: cT2 cN0 cM0 GrX HER2- ER/PR+ stage grp 99
- Pathological: pT2 pN0(sn) cM0 Gr2 HER2- ER/PR+ stage grp IA
- Grade clinical may be coded as B, but not used for AJCC


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Clarifications



Stage Groups Tables Differ


- Stage group tables *different* for clinical & pathological
 - Same TNM G Biomarker combinations *not* same c & p group
 - Based on outcome data
- Examples
 - Clinical T2 N0 M0 G3 HER2- ER/PR+ stage IIA
 - Pathological T2 N0 M0 G3 HER2- ER/PR+ stage IB
 - Clinical T3 N0 M0 G2 HER2- ER/PR- stage IIIB
 - Pathological T3 N0 M0 G2 HER2- ER/PR- stage IIB
- Reason for differences between clinical & pathological group
 - Tumor size may vary between imaging and resection
 - Negative nodes on exam/imaging contain mets when resected



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Posttherapy Staging Critical


- Critical posttherapy staging regardless of response
 - Even if tumor does not respond, stays the same
 - Even if tumor larger or more nodal involvement
 - *Not* considered progression of disease
 - Posttherapy staging must be assigned
- Need data on **all** patients undergoing neoadjuvant therapy
 - Not just those with partial or complete response
 - Do not skew data by eliminating those with no response
- Assign ypT, ypN, and c/pM categories
- No posttherapy stage group



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Breast Neoadjuvant Therapy


- Breast neoadjuvant therapy
 - **Must** meet standard guidelines, such as NCCN or ASCO
 - Usually 4-6 cycles of chemo, sometimes more
 - Usually 4-6 months of endocrine therapy, may be up to 1 year
 - Short course endocrine therapy does **NOT** qualify
 - Rule for staging, not for registry treatment data items
- Must assign posttherapy staging
 - Even if chemo changed to different group of chemo drug
 - Even if endocrine therapy changed
- CoC states surgical resection coded even if no response



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Stage Data


- Stage is more than just the group
- Assign T, N, M, and prognostic factor categories
 - Even if stage group doesn't exist
 - Especially with missing info and stage group can't be assigned
- Value not tied only to stage group
 - Studies performed on TNM data, not just stage groups
 - Critical comparisons between cT cN and ypT ypN



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Breast Sentinel Node Procedure

- Sentinel lymph node procedure includes
 - Sentinel nodes with dye/radiotracer
 - **and**
 - Non-sentinel nodes, palpably abnormal, without dye/radiotracer
 - Use (sn) suffix for N category
- Sentinel node procedure results
 - Pathologist reports to surgeon in Operating Room
 - Surgeon needs results to decide if node dissection needed
- Waiting for results
 - If you don't wait for SLN path results, no reason to perform it
 - Next steps based on frozen sections of those sentinel nodes



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Scenario

- Pt with 48mm UOQ tumor and enlarged axillary node. Ductal ca, SBR 6 points, HER2 neg, ER/PR positive, breast bx. Axillary node FNA positive for mets.

Neoadjuvant chemo. No response, tumor 60mm, ycT3.


Mastectomy showing 58mm tumor, SBR 7 points, 4/10 axillary nodes positive.

- Clinical: cT2 cN1(f) cM0 Gr2 HER2- ER/PR+ stage grp IIA
- Posttherapy: ypT3 ypN2a cM0 Gr2 HER2- ER/PR+ stage grp not assigned



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Additional Changes to Breast



LCIS

Definition of Primary Tumor (T) Lobular carcinoma *in situ* (LCIS) is removed as a pTis category for T categorization. Lobular carcinoma *in situ* is treated as a benign entity and is removed from TNM staging.

- Lobular carcinoma *in situ* no longer assigned a stage
 - Please discuss reportability with your standard setter
- In situ category may only be
 - Tis (DCIS)
 - Tis (Paget)




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Rounding Caution for Tumor Size

Definition of Primary Tumor (T) The general rules for rounding to the nearest millimeter do not apply for tumors between 1.0 and 1.5 mm, so as to not classify these cancers as microinvasive (T1mi) carcinomas (defined as invasive tumor foci 1.0 mm or smaller). Tumors >1 mm and <2 mm should be reported rounding to 2 mm.


- Breast exception T category
 - >1.0 mm to 1.4 mm **rounded to 2 mm**
 - Avoid assigning “microinvasion” category to cancer >1.0 mm
 - Other sizes rounded for T category assignment
 - Round down between 1 and 4
 - Round up between 5 and 9
- Critical for prognosis and data analysis
 - T1mi “microinvasion” must **only** represent ≤1 mm



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Scenario

- Pt's screening mammogram identified 1.1mm tumor with negative axilla. Ductal ca, intermediate combined histologic grade, HER2 neg, ER/PR positive, breast bx. Lumpectomy and SLNB showing no residual tumor, 2 sentinel nodes negative, 1 non-sentinel node negative.
- Clinical: cT1a cN0 cM0 Gr2 HER2- ER/PR+ stage grp IA
- Pathological: pT1a pN0(sn) cM0 Gr2 HER2- ER/PR+ stage grp IA



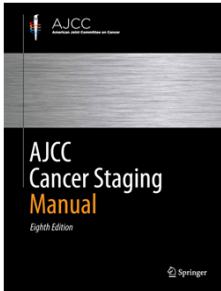
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Information and Questions on AJCC Staging



AJCC Web site


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



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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/>



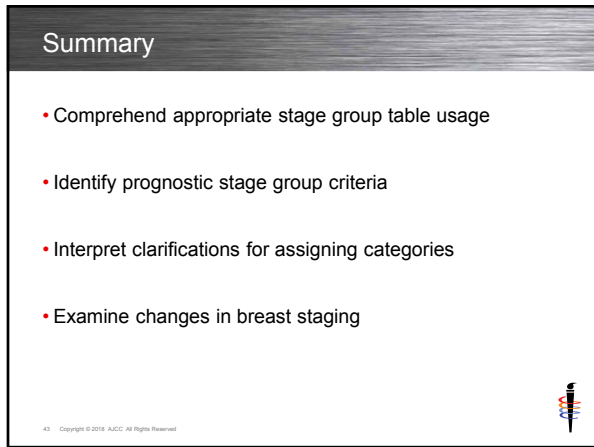
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Quiz



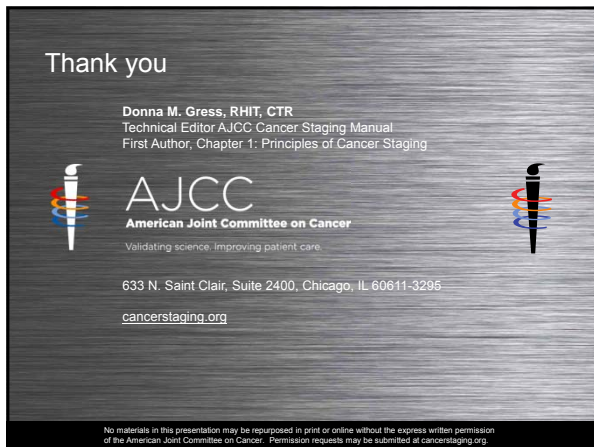
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Summary

- Comprehend appropriate stage group table usage
- Identify prognostic stage group criteria
- Interpret clarifications for assigning categories
- Examine changes in breast staging



Thank you

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