

Female Breast

Labels in the diagram: Chest wall, Ribs, Muscle, Fatty tissue, Lobe.

If you have technical difficulties, please contact us at 217 698 0800.

If you do not have the case scenarios or slides, Please email amartin@naaccr.org

BREAST 2021

NAACCR 2020-2021 WEBINAR SERIES

Q&A

- Please submit all questions concerning the webinar content through the Q&A panel.
- If you have participants watching this webinar at your site, please collect their names and emails.
- We will be distributing a Q&A document in about one week. This document will fully answer questions asked during the webinar and will contain any corrections that we may discover after the webinar.



FABULOUS PRIZES



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GUEST PRESENTER

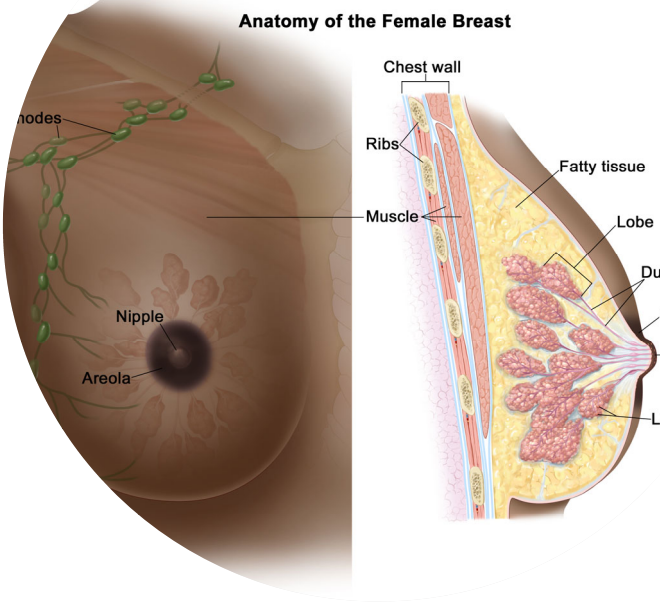
- Vicki Hawhee, M.Ed, CTR



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AGENDA

- Overview
 - Resources
 - Anatomy
- Case 1-Basic
- Case 2-Multiple Tumors
- Case 3-No primary tumor identified
- Case 4-Vaccine Therapy




The diagram, titled "Anatomy of the Female Breast", shows two views. On the left is a top-down view of the breast with labels for "Lymph nodes", "Nipple", and "Areola". On the right is a cross-sectional view of the breast and chest wall, with labels for "Chest wall", "Ribs", "Muscle", "Fatty tissue", "Lobe", "Duct", and "L".

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RESOURCES

- Solid Tumor Rules
 - <https://seer.cancer.gov/tools/solidtumor/>
- SEER RSA
 - https://staging.seer.cancer.gov/eod_public/list/2.0/
- Grade and SSDI Manual
 - <https://apps.naaccr.org/ssdi/list/2.0>
- AJCC Cancer Staging Manual 8th Edition
 - <https://cancerstaging.org/references-tools/deskreferences/pages/default.aspx>
- STORE 21
 - <https://www.facs.org/quality-programs/cancer/ncdb/call-for-data/cocmanuals>
- SEER Program Coding and Staging Manual 2021
 - <https://seer.cancer.gov/tools/codingmanuals/>



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Anatomy of the Female Breast

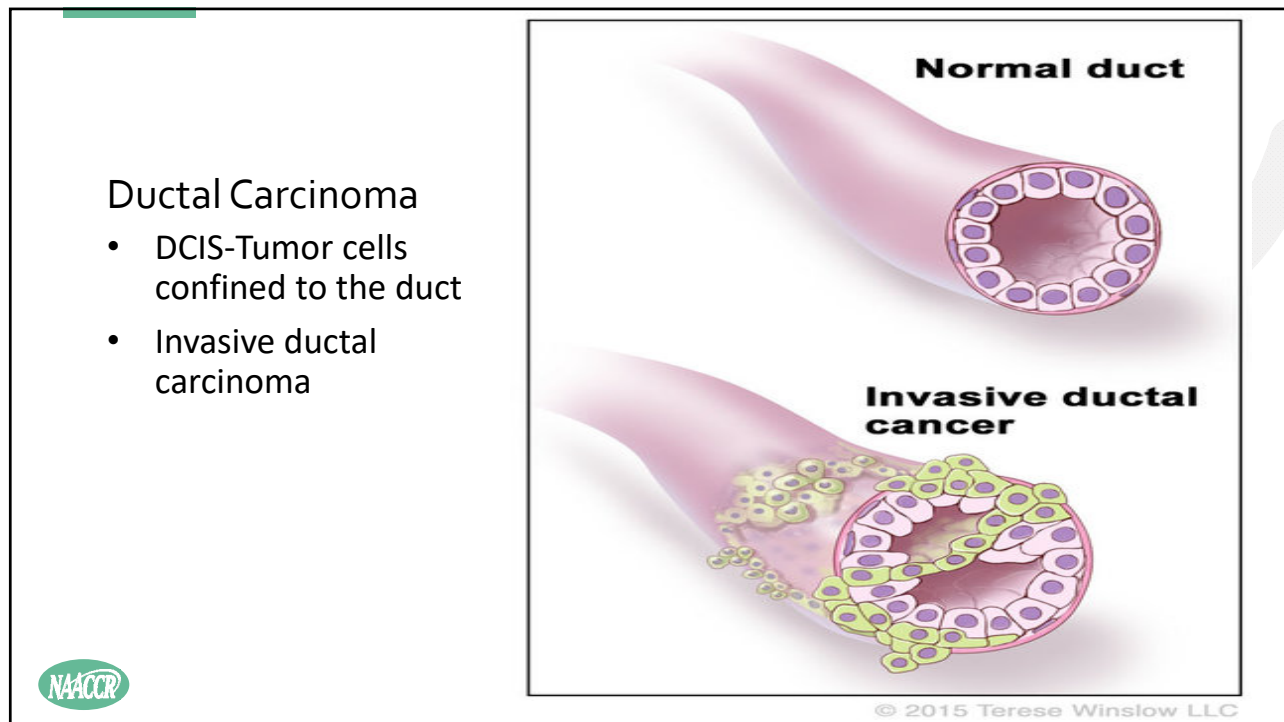
- Breast Structures
- Skin
- Chest wall/Pectoralis
- Lymph Nodes
 - Axillary Level I and II
 - Internal Mammary
 - Axillary Level III
 - Supraclavicular

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Tumor Size

- Clinical Tumor Size
- Pathologic Tumor Size
- Tumor Size Summary

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HISTOLOGY NOTES

- Carcinoma NOS 8500/3
 - Synonyms (also coded 8500/3)
 - Ductal Carcinoma
 - DCIS
 - Mammary Carcinoma
 - Subtypes (not coded 8500/3)
 - Carcinoma with osteoclastic-like stromal giant cells 8035
 - Cribriform carcinoma 8201/3
 - Pleomorphic carcinoma 8022/3
- Histology Coding Rules
 - Rule H16 (single tumor) Code the subtype/variant **ONLY** when
 - There is a NOS/NST and a subtype/variant
 - **AND** the subtype/variant is documented to be greater than **90%** of the tumor.
 - Rule H26 (multiple tumor) Code the NOS/NST when there is a NOS/NST and a subtype/variant
 - Mixed in all of the tumors **OR**
 - Separate tumors with different histologies



CASE #1

Basic



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CASE #1 CLINICAL INFORMATION

- 06/23/2020 Screening mammogram: Left breast with indeterminate calcifications with associated symmetry noted in the upper inner quadrant.
- 08/18/2020 Left diagnostic mammogram and ultrasound: Low-density mass with circumscribed borders persist in the central and superior left breast at anterior depth. Ultrasound confirms a complex cystic/solid mass with internal vascularity at 11-12:00 1 x 0.5 x 0.9 cm. No other abnormalities.
- 09/17/2020 MRI breast – Left breast with an irregular enhancing mass 1.1 x 1.2 cm involving the UIQ of the left breast. No nodes noted.
- 10/07/2020: Left breast core biopsy: Invasive ductal carcinoma. Nottingham Grade 2, 0.2 cm in largest linear extent, DCIS intermediate nuclear grade, micropapillary and solid with focal comedonecrosis and microcalcifications.
- ER+ 95% 3+, PR+ 20% 3+, HER-2 by IHC Negative (1+), Ki-67 approx. 30%.



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CASE 1

- Patient was counseled on treatment recommendations including surgery to include lumpectomy versus mastectomy. Patient chose left breast simple mastectomy with a prophylactic right breast mastectomy.



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SURGERY

- 01/14/2021 Left breast simple mastectomy, left sentinel lymph node mapping and biopsy, right prophylactic simple mastectomy, both sides with immediate tissue expander placement.
- Pathology: Right breast benign.
- Left breast – invasive ductal carcinoma, Nottingham grade 1, 1.1 cm in largest dimension. DCIS compromising approximately 70% of the tumor volume, no LVI, all margins are negative. Left axillary sentinel lymph nodes – 3 excised, all negative, confirmed on immunostains.



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PATHOLOGICAL INFORMATION

- Oncotype score 12
- No role for radiation – clear margins, node negative
- No role for adjuvant chemotherapy – Oncotype 12
- Patient will require adjuvant endocrine therapy for 5 years.

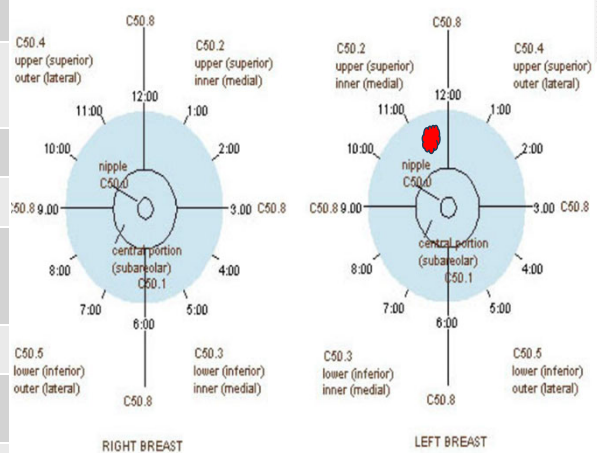


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CASE 1

Data Item	Value	Comments
Primary Site	C50.2	
Histology	8500	Single primary per rule M3. H8 then H14 for histology.
Behavior	3	
Grade Clinical	2	Nottingham G2 per core bx
Grade Pathologic	2	Highest known grade after core bx is Nottingham G2 (grade from core bx).
Clinical Tumor Size	012	Size from MRI
Pathologic Tumor Size	011	Size from surgical specimen
Tumor Size Summary	011	Size from surgical specimen

"Clock" Positions, Quadrants and ICD-O Codes of the Breast



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CASE 1

Clinical

- Tumor Size: 1.2
 - Unifocal
- Regional Nodes: Neg
- Distant Mets: Neg
- Grade: G2
- Her2: Neg
- ER: Pos
- PR: Pos

Pathological

- Tumor Size: 1.1
 - unifocal
- Regional Nodes: 00/03 SN
- Distant Mets: Neg
- Grade: G1 (G2)
- Her2: Neg
- ER: Pos
- PR: Pos
- Oncotype Score: 12

Data Item	Value
Clinical T	cT1c
Clinical T Suffix	
Clinical N	cN0
Clinical N Suffix	
Clinical M	cM0
Clinical Stage Group	1A
Pathologic T	pT1c
Pathologic T Suffix	
Pathologic N	pN0
Pathologic N Suffix	(sn)
Pathologic M	cM0
Pathologic Stage Group	IA



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CASE 1

Clinical

- Tumor Size: 1.2
 - Unifocal
- Regional Nodes: Neg
- Distant Mets: Neg
- Grade: G2
- Her2: Neg
- ER: Pos
- PR: Pos

Pathological

- Tumor Size: 1.1
 - unifocal
- Regional Nodes: 00/03 SN
- Distant Mets: Neg
- Grade: G1
- Her2: Neg
- ER: Pos
- PR: Pos

Data Item	Value
Summary Stage2018	1 Localized
EOD Primary Tumor	100 (Any size confined to breast)
EOD Regional Nodes	070 PATHOLOGICAL assessment only No regional lymph node involvement pathologically
EOD Mets	00 No Distant mets or Unknown if distant mets
Sentinel Nodes Pos	00
Sentinel Nodes Ex	03
Regional Nodes Pos	00
Regional Nodes Ex	03



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CASE 1 SSDIs

- Markers from biopsy specimen
 - ER+ 95% 3+
 - PR+ 20% 3+
 - HER-2 by IHC Negative (1+)
 - Ki-67 approx. 30%.

Proportion Score	Positive Cells, %
0	0
1	<1
2	1 to 10
3	11 to 33
4	34 to 66
5	≥67

Intensity	Intensity Score
None	0
Weak	1
Intermediate/Moderate	2
Strong	3

Data Item	Value
ER Summary	1 (Positive)
ER Percent Pos	095
ER Allred Score	8
PR Summary	1 (Positive)
PR Percent Pos	020
PR Allred Score	6
HER 2 Overall Summary	0 (negative)
Ki 67	30.0
Oncotype DX Recur Score	12



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CASE 1 DX/STAGING AND SURGERY

- 10/07/2020: Left breast core biopsy
- 01/14/2021 Left breast simple mastectomy, left sentinel lymph node mapping and biopsy, right prophylactic simple mastectomy, both sides with immediate tissue expander placement

Data Item	Value
Surgical Diagnostic Staging Procedure	02
Surgical Procedure of Primary Site	49 (bilateral breast with implants)
Scope of Regional Lymph Node Surgery	02 (sentinel node biopsy)
Surgical Procedure Other Site	00



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FINAL REVIEW/QUESTIONS



CASE #2

Multiple Tumors



CASE #2 – CLINICAL INFORMATION

- A 67 year old female self-palpated a lump in the UOQ of the right breast and presented her to primary care physician on 02/15/2021. The PCP performed an exam and noted large pendulous breasts and confirmed a 2.5 cm lesion in the UOQ, no abnormalities in the axillae. A diagnostic mammogram was ordered that identified a 2.1 cm lesion at 10:00 and a 3.2 cm lesion at 11:00, there were also a few indeterminate right axillary nodes. No abnormalities were noted in the left breast.
- Biopsies were performed on 03/01/2021 and revealed the following:
- 10:00 lesion – Invasive ductal carcinoma with apocrine metaplasia, Nottingham grade 1 (ER 92% 3+, PR 79% 2+, HER-2 by IHC 0 negative).
- 11:00 lesion – Invasive pleomorphic carcinoma, Nottingham grade 2 (ER 50% 2+, PR 65% 2+, HER-2 by IHC 0 negative). Ki-67 16%



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TREATMENT OPTIONS

- The patient was offered breast conserving surgery (since the lesions were close) followed by radiation versus mastectomy. Additional treatment recommendations will be based on surgical findings.
- The patient decided to have breast conserving surgery.
- 03/25/2021 SAVI localized right breast lumpectomy, right sentinel lymph node biopsy, reverse right arm lymph node mapping and bilateral breast oncoplastic reduction.



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SURGERY INFORMATION

- SAVI SCOUT works by placing a reflector into the tumor site in advance of your surgery. The reflector is completely passive until activated in the operating room.
- (NOTE: There is also a SAVI radiation procedure, but this is not the same thing)
- **Oncoplastic surgery**, also called oncoplasty, is a new technique that combines the latest in plastic **surgery** with **breast** surgical oncology. In one procedure, your tumor is removed, and your remaining **breast** tissue is reshaped, so you retain a more natural **breast** appearance and symmetry.
- 03/25/2021 SAVI localized right breast lumpectomy, right sentinel lymph node biopsy, reverse right arm lymph node mapping and bilateral breast oncoplastic reduction.



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NEXT STEPS

- Per national treatment guidelines – if the patient chooses breast conservation surgery, then surgery should be followed by radiation.
- The patient received 45 Gy in 25 fractions (6x 10x, 3D conformal) to the breast followed by a boost to the lumpectomy bed of 5 fractions, total of 10 Gy (6x 10x, 3D conformal).
- As the patient is ER and PR positive, the patient is counseled regarding hormone therapy and she agreed – 5 years. Arimidex

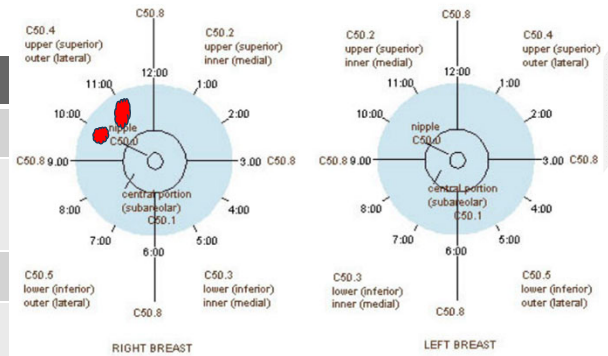


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CASE 2

Data Item	Value	Comments
Primary Site	C50.4 (UOQ)	See Table 1 Solid Tumor Manual
Histology	8500 (Carcinoma, NOS)	(M13, H26)
Behavior	3	
Grade Clinical	G2	Take grade from the largest tumor.
Grade Pathologic	G2	Take grade from the largest tumor.
Clinical Tumor Size	032	Size of the largest tumor identified prior to treatment
Pathologic Tumor Size	029	Size of the largest tumor based on pathologic review
Tumor Size Summary	029	Size of the largest tumor. Pathologic resection priority

"Clock" Positions, Quadrants and ICD-O Codes of the Breast



Rule M13 Abstract a single primary when synchronous, separate/non-contiguous tumors are on the same row in Table 3

Rule H26 Code the NOS/NST when there is a NOS/NST and a subtype/variant:

- Mixed in all of the tumors OR
- Separate tumors with different histologies

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CASE 2

Clinical

- Tumor Size: 3.2
 - Multifocal
- Regional Nodes: Neg
- Distant Mets: Neg
- Grade: G2
- Her2: Neg
- ER: Pos
- PR: Pos

Pathological

- Tumor Size: 2.9
 - multifocal
- Regional Nodes: 00/02 SN
- Distant Mets: Neg
- Grade: G2
- Her2: Neg
- ER: Pos
- PR: Pos
- Oncotype DX Score: 9

Data Item	Value
Clinical T	cT2
Clinical T Suffix	(m)
Clinical N	cN0
Clinical N Suffix	
Clinical M	cM0
Clinical Stage Group	1B
Pathologic T	pT2
Pathologic T Suffix	(m)
Pathologic N	pN0
Pathologic N Suffix	(sn)
Pathologic M	cM0
Pathologic Stage Group	IA



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MORE ABOUT (M)

- <https://cancerbulletin.facs.org/forums/forum/ajcc-tnm-staging-8th-edition/breast-chapter-48/breast-chapter-48-aa/115415-breast-t4b-or-t2-m-path-staging>
- <https://cancerbulletin.facs.org/forums/forum/ajcc-tnm-staging-8th-edition/breast-chapter-48/breast-chapter-48-aa/108525-breast-path-t-suffix>
- <https://cancerbulletin.facs.org/forums/forum/ajcc-tnm-staging-8th-edition/breast-chapter-48/breast-chapter-48-aa/104879-multiple-foci-in-breast>
- <https://cancerbulletin.facs.org/forums/forum/ajcc-tnm-staging-8th-edition/breast-chapter-48/breast-chapter-48-aa/101465-multicentric-breast-ca-satellite-tumors>



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CASE 2

Clinical

- Tumor Size:
 - 3.2
 - Multifocal
- Regional Nodes: Neg
- Distant Mets: Neg
- Grade: G2
- Her2: Neg
- ER: Pos
- PR: Pos

Pathological

- Tumor Size:
 - 2.9 multifocal
- Regional Nodes: 00/02 SN
- Distant Mets: Neg
- Grade: G2
- Her2: Neg
- ER: Pos
- PR: Pos

Data Item	Value
Summary Stage 2018	1 Localized
EOD Primary Tumor	100 confined to breast
EOD Regional Nodes	070 (pathologic confirmation of neg LN's)
EOD Mets	00 (negative)
Sentinel Nodes Pos	00
Sentinel Nodes Ex	02
Regional Nodes Pos	00
Regional Nodes Ex	02



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ALLRED SCORES

- **Note 6:** In cases where there are multiple tumors with different ER results, code the results from the largest tumor size (determined either clinically or pathologically) when multiple tumors are present.
- 11:00 lesion – Invasive pleomorphic carcinoma, Nottingham grade 2 (ER 50% 2+, PR 65% 2+, HER-2 by IHC 0 negative). Ki-67 16%.

- ER Allred 50% 2+ = 4+2 = 6
- PR Allred 65% 2+ = 4+2 = 6

Proportion Score	Positive Cells, %
0	0
1	<1
2	1 to 10
3	11 to 33
4	34 to 66
5	≥67

Intensity	Intensity Score
None	0
Weak	1
Intermediate/Moderate	2
Strong	3



CASE 2

- Markers from biopsy specimen
 - ER+ 50% 2+
 - PR+ 65% 2+
 - HER-2 by IHC Negative (0)
 - Ki-67 16%.

Proportion Score	Positive Cells, %
0	0
1	<1
2	1 to 10
3	11 to 33
4	34 to 66
5	≥67

Intensity	Intensity Score
None	0
Weak	1
Intermediate/Moderate	2
Strong	3

Data Item	Value
ER Summary	1
ER Percent Pos	050
ER Allred Score	6
PR Summary	1
PR Percent Pos	065
PR Allred Score	6
HER 2 Overall Summary	0
Ki 67	16.0
Oncotype DX Recur Score	9



CASE 2

- 03/01/2021 Breast Biopsies at the 10:00 and 11:00 lesions
- 03/25/2021 SAVI localized right breast lumpectomy, right sentinel lymph node biopsy, reverse right arm lymph node mapping and bilateral breast oncoplastic reduction.
- At this time we do not have a bilateral lumpectomy code for breast surgery, so we can only code the involved right breast lumpectomy (22)
- We would not code the reconstruction, as a breast is not being “reconstructed” but just shaped for symmetry.

Data Item	Value
Surgical Diagnostic Staging Procedure	02
Surgical Procedure of Primary Site	22 (lumpectomy)
Scope of Regional Lymph Node Surgery	02 (sentinel node biopsy)
Surgical Procedure Other Site	00



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CASE 2

$45 \div 25 = 1.8$
1.8 Gy is the dose per fraction

- The patient received 45 Gy in 25 fractions (6x 10x, 3D conformal) to the breast followed by a boost to the lumpectomy bed of 5 fractions (6x 10x, 3D conformal), total of 10 Gy.

Phase	One	Two
Primary Treatment Volume	40 (whole breast)	41 (partial breast)
Draining Lymph Nodes	00 (none)	00 (none)
Modality	02 (photons)	02 (photons)
EB Planning Technique	04 (3D conformal)	04 (3D conformal)
Dose per fraction	00180	00200



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FINAL REVIEW/QUESTIONS BREAK



CASE #3

Breast case with no primary tumor identified



CASE #3 CLINICAL INFORMATION

- A 52 year old female presents with swelling in the left axilla. Her PCP noted a 3.1 cm mass in the left axilla on PE that was fixed. Left axillary ultrasound identified a left axillary node 3 cm, and 2 additional nonspecific nodes 1.1 and 0.9 cm. Additionally, diagnostic mammogram was ordered and identified no suspicious breast findings.
- Biopsy was performed of the enlarged left axillary node (11/13/2020) and revealed a metastatic poorly differentiated breast carcinoma, ER (-) 0%, PR (-) 0%, HER2 IHC (-) 1+, KI-67 76%.
- 03/27/2020 PET SCAN – 3.2 cm avid mass in the left axilla, no obvious source of left axillary cancer. No distant mets identified.



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INITIAL TREATMENT

- The patient was recommended to undergo Carboplatin and Paclitaxel followed by DDAC (dose dense Adriamycin and Cytoxan)
- Following systemic therapy:
- MRI breasts – Oval mass (24 x 14 x 22 mm) in the inferior left axilla is known malignancy, decreased in size compared to the prior study indicating partial response to treatment. Adjacent level 1 axillary nodes are prominent. Surgical management of the known malignancy is recommended.



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SURGERY

- Operative report: Left complete axillary dissection with reverse arm mapping. (the reverse arm mapping is a procedure performed to try and preserve multiple lymphatic channels to decrease the possible lymphedema resulting from the surgery. The right arm was infiltrated with isosulfan blue dye to clearly map the lymphatic channels).
- 0/8 nodes removed in one specimen. Therapy change and biopsy clip are identified in the largest node, another node shows focal fibrosis, suggestive of therapy change. Additional 0/8 left axillary nodes (total of 16 nodes removed).



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ADDITIONAL TREATMENT

- Discussion with the patient regarding diagnosis, prognosis and treatment options. Recommend a course of radiation to the whole left breast with inclusion of the regional nodes.
- The patient was recommended to have radiation, which she completed:

Radiotherapy Treatment:

Treatment Summary:

Treatment Site	Radiation Oncology - Course: 1 Protocol:		From	To	Elapsed Days	Fx.
	Current Dose	Modality				
L breast and nodes	5,000 cGy	x6 to x15	3/08/2021	4/09/2021	32	25

Technique(s): 3Dconformal/IGRT



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MORE TREATMENT

- Patient does not require any further systemic therapy. Discussed with the patient taking low-dose tamoxifen 10 mg po every other day as chemoprevention for breast cancer, she agreed and began Tamoxifen.
- **Chemoprevention of Hormone Receptor-Negative Breast Cancer: New Approaches Needed**
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3415693/>
- **Tamoxifen Chemoprevention Treatment and Time to First Diagnosis of Estrogen Receptor–Negative Breast Cancer**
- <https://academic.oup.com/jnci/article/100/20/1448/899273>



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TUMOR MARKERS

- ER and PR:
- **Note 3:** Results from nodal or metastatic tissue may be used ONLY when there is no evidence of primary tumor.
- HER2
- **Note 3:** Results from nodal or metastatic tissue may be used, ONLY when there is no evidence of primary tumor.
- Ki-67
- **Note 3:** Results from nodal or metastatic tissue may be used, ONLY when there is no evidence of primary tumor.



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GRADE

- Note 7:** Grade from nodal tissue may be used **ONLY** when there was **never** any evidence of primary tumor (T0). Grade would be coded using G1, G2, or G3, even if the grading is not strictly Nottingham, which is difficult to perform in nodal tissue. Some of the terminology may include differentiation terms without some of the morphologic features used in Nottingham (e.g., well differentiated (G1), moderately differentiated (G2), or poorly/undifferentiated (G3)).
 - Example:* No breast tumor identified, but 2/3 axillary nodes were positive. Determined to be regional node metastasis from breast primary. Nodes were described as poorly differentiated with a high mitotic rate
 - Code G3 based on the poorly differentiated (which is a high grade) although the terminology used is for nuclear grading

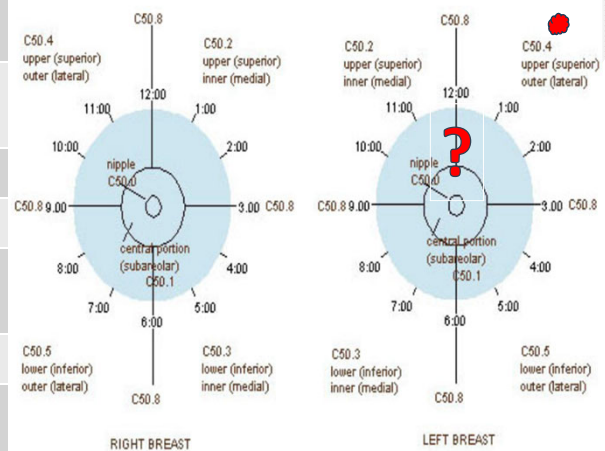


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CASE 3

Data Item	Value	Comments
Primary Site	C50.9	Clinical suspicion of breast primary, but no tumor.
Histology	8500	M1 H14
Behavior	3	
Grade Clinical	3	
Grade Pathologic	9	
Clinical Tumor Size	000	
Pathologic Tumor Size	999	
Tumor Size Summary	000	

"Clock" Positions, Quadrants and ICD-O Codes of the Breast



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CASE 3

Clinical

- Tumor Size:
 - None found
- Regional Nodes: FNA Left axilla (fixed)
- Distant Mets: Neg
- Grade: G3
- Her2: Neg
- ER: Neg
- PR: Neg

Post Therapy Clin

- Tumor Size:
 - None Found
- Regional Nodes: 00/16
- Distant Mets: Neg
- Grade:
- Her2:
- ER:
- PR:

Data Item	Value
Clinical T	cT0
Clinical T Suffix	
Clinical N	cN2a
Clinical N Suffix	(f)
Clinical M	cM0
Clinical Stage Group	3C
Post Tx Clinical T	ycT0
Post Tx Clinical T Suffix	
Post Tx Clinical N	ycN0
Post Tx Clinical N Suffix	
Post Tx Clinical M	cM0
Post Tx Clinical Stage Group	88



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POST THERAPY STAGING

- yc – after primary systemic and/or radiation therapy without subsequent surgical resection or after neoadjuvant and before planned surgical resection.
- yp – after primary systemic and/or radiation therapy with subsequent surgical resection (gathered using pathological classification rules and methods)
- Patient is eligible for yc post therapy staging – HOWEVER – we are only required to collect yc if surgery was planned following neoadjuvant treatment and the surgery was cancelled either due to progression or complete response.
- ycT0 ycN0 cM0 Stage group 88



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YC STAGING

- YC stage CAN be collected even when the patient has surgery after neoadjuvant treatment or if surgery was not planned from the beginning.
- <https://cancerbulletin.facs.org/forums/forum/ajcc-tnm-staging-8th-edition/principles-of-ca-staging-and-general-info-chapters-1-4/principles-of-cancer-staging-chapter-1/118477-yc-stage-classification-when-and-how-to-use>
- AJCC presentation:
- <https://learning.facs.org/content/ajcc-yc-stage-classification-when-and-how-use>



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CASE 3

- Clinical
 - Tumor Size:
 - None Found
 - Regional Nodes: Left axillary Fixed
 - Distant Mets: Neg
 - Grade: G3
 - Her2: Neg
 - ER: Neg
 - PR: Neg
- Post Tx Clinical
 - Tumor Size:
 - None Found
 - Regional Nodes: 00/16
 - Distant Mets: Neg
 - Grade:
 - Her2:
 - ER:
 - PR:

Data Item	Value
Summary Stage 2018	3 Regional to Lymph Nodes
EOD Primary Tumor	800 (No evidence of primary tumor)
EOD Regional Nodes	350 (CLINICAL assessment only) Fixed/matted axillary (level I and II) (ipsilateral)
EOD Mets	00
Sentinel Nodes Pos	98
Sentinel Nodes Ex	00
Regional Nodes Pos	95
Regional Nodes Ex	16



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CASE 3

- Markers from biopsy specimen
 - ER- 0%
 - PR- 0%
 - HER-2 by IHC Negative (1+)
 - Ki-67 76%.

Data Item	Value
ER Summary	0
ER Percent Pos	000
ER Allred Score	00
PR Summary	0
PR Percent Pos	000
PR Allred Score	0
HER 2 Overall Summary	0
Ki 67	76
Oncotype DX Recur Score	XX9
Response to Neoadjuvant Tx	9



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CASE 3

- 11/13/2020: FNA enlarged left axillary node
- Following Systemic therapy: Left complete axillary dissection with reverse arm mapping.

Data Item	Value
Surgical Diagnostic Staging Procedure	00
Surgical Procedure of Primary Site	00
Scope of Regional Lymph Node Surgery	1 (biopsy) 5 (16 nodes removed)
Surgical Procedure Other Site	00



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RADIATION

- The patient received 50 Gy in 25 fractions (6x to 15x, 3D conformal) to the left breast and nodes

Phase	One
Primary Treatment Volume	40 (whole breast)
Draining Lymph Nodes	04 (breast nodes)
Modality	02 (photons)
EB Planning Technique	04 (3D conformal)
Dose per fraction	00200



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FINAL REVIEW/ QUESTIONS?



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CASE #4

Breast Case with a vaccine trial



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CASE 4 CLINICAL INFORMATION

- 09/19/2020 SCREENING MAMMOGRAM - RIGHT BREAST - 10:00 POSITION 10 CMFN IS A SOLID MASS 1.9 X 1.8 X 1.6 CM, CORRELATES WITH PALPABLE FINDING. NODULES IN RIGHT AXILLA FAVOR SUSPICIOUS ADENOPATHY.
- 10/09/2020 RIGHT MAMMOGRAM - 10:00 10 CMFN 1.9 CN NEW PALPABLE SUSPICIOUS SOLID MASS WITH IPSILATERAL AXILLARY TAIL SUSPICIOUS ADENOPATHY.
- 11/20/2020 PET IMAGING - METABOLICALLY ACTIVE DISEASE IN THE RIGHT BREAST AND RIGHT AXILLA CORRELATES WITH THE HISTOLOGICALLY CONFIRMED NEOPLASM.
- 11/23/2020 MRI BREAST - LEFT BREAST WITH NO ABNORMALITIES. RIGHT BREAST - IRREGULAR LOBULATED MASS IN THE POSTERIOR RIGHT UOQ (10:00) CORRESPONDING TO BIOPSY PROVEN MALIGNANCY 2.8 X 2.1 X 2.1 CM, 6 CMFN. MULTIPLE ENLARGED RIGHT AXILLARY NODES ARE NOTED AT LEVEL 1, LARGEST MEASURING 2.6 CM AND LIKELY CORRESPONDING TO BIOPSY PROVEN METASTATIC NODE PER HISTORY. ABNORMAL APPEARING NODES ARE ALSO PRESENT AT LEVEL 2 (3 CM NODE).
- 01/07/2021 OUR FACILITY: 59 YEAR OLD FEMALE WHO BEGAN NOTICING DISCHARGE/FLAKING FROM THE RIGHT NIPPLE IN LATE 2019/EARLY 2020. EVENTUALLY SOUGHT CARE AND HAD A BIOPSY SHOWING A RIGHT BREAST INVASIVE DUCTAL CARCINOMA WITH MULTIPLE ENLARGED AXILLARY NODES. PE TODAY IDENTIFIES A 4 CM MASS IN THE RIGHT LATERAL BREAST WITH EASILY PALPABLE AXILLARY ADENOPATHY AND NIPPLE WITH PAGET'S. CLINICALLY A T2 N1 M0 STAGE 2 BREAST CANCER. RECOMMEND NEOADJUVANT TCH-P.



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BIOPSY INFORMATION

- 10/22/2020 - RIGHT BREAST 10:00 MASS NEEDLE CORE BIOPSY - INVASIVE DUCTAL CARCINOMA, NOTTINGHAM GRADE 2,
- ER 0% NEGATIVE
- PR 0% NEGATIVE
- HER-2/NEU BY IHC 3 POSITIVE
- KI-67 30% HIGH
- RIGHT AXILLARY LN FNA – METASTATIC CARCINOMA.



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CLINICAL INFORMATION

- BEST chance for a cure can often be a clinical trial.



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CLINICAL TRIAL INFORMATION

- **PILOT STUDY UTILIZING HER-2 DIRECTED DENDRITIC CELL VACCINE DURING NEOADJUVANT THERAPY OF HER2+ BREAST CANCER.**
- VACCINE GIVEN FOR 3 WEEKS FOLLOWED BY TCHP (up to 6 cycles). BOOSTER INTRANODAL STUDY VACCINE AT WEEK 25 NEAR THE DATE OF SURGERY, THEN 3 BOOSTER INTRANODAL STUDY VACCINES GIVEN ONCE EVERY 6 MONTHS (THE FIRST IS TO OCCUR 6 MONTHS FROM 1 MONTH AFTER SURGERY)
- Arm A – One vaccine per week x3 weeks
- Arm B – Two vaccines per week given 3 days apart x 3 weeks.
- Arm C – Second phase expansion treatment plan – injections twice weekly, the first is in the LN, the second is in the tumor.
- Currently dendritic cell vaccines per SEER RX coded as BRM



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SYSTEMIC THERAPY

- 01/15/2021 (LN) and 01/19/2021 (breast) Vaccine
- 01/22/2021 (LN) and 01/25/2021 (breast) Vaccine
- 01/29/2021 (LN) and 02/01/2021 (breast) Vaccine
- 02/04/2021 – 05/20/2021 6 cycles of CARBOPLATIN, DOCETAXEL, TRASTUZUMAB AND PERTUZUMAB
- 06/21/2021 – Surgery
- 06/11/2021 – ONGOING TRASTUZUMAB AND PERTUZUMAB (BECAUSE SHE IS HER-2 POSITIVE THIS WILL CONTINUE FOR 12-18 MONTHS)



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SURGERY

- 06/21/2021 RIGHT MODIFIED RADICAL MASTECTOMY, LEFT PROPHYLACTIC. IMMEDIATE RIGHT AXILLARY LYMPHATIC RECONSTRUCTION. RIGHT AXILLARY DISSECTION.
- NOTE: Lymphatic reconstruction by lymphovenous anastomosis in an attempt to keep the patient from developing lymphedema.
- 06/21/2021 RIGHT BREAST MASTECTOMY - RESIDUAL INVASIVE AND IN SITU DUCTAL CARCINOMA S/P NEOADJUVANT CHEMOTHERAPY, INVASIVE TUMOR 1.8 CM WITH 10% CELLULARITY, TUMOR BED 3 CM. LVI INDETERMINATE, MARGINS NOT INVOLVED, METS IN 3/29 RIGHT AXILLARY NODES, ADDITIONAL NODES WITH ISOLATED TUMOR CELLS, LARGEST METS 0.75 CM, NO ENE. TWO ADDITIONAL RIGHT AXILLARY NODES FOUND BOTH NEGATIVE.



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ADDITIONAL TREATMENT

- Patient is continuing pertuzumab and trastuzumab for 12-18 months.
- 07/02/2021 Right breast vaccine
- Vaccines will be ongoing to complete the clinical trial.

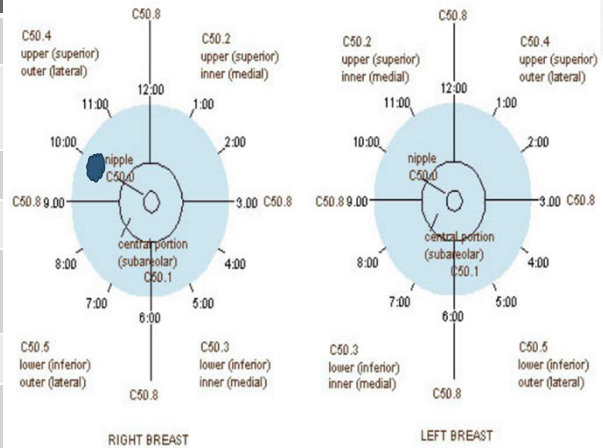


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CASE 4

Data Item	Value	Comments
Primary Site	C50.4	R breast 10 o'clock
Histology	8500	
Behavior	3	
Grade Clinical	2	
Yp Grade Pathologic	9	
Clinical Tumor Size	028	
Pathologic Tumor Size	999	
Tumor Size Summary	028	Tumor size prior to tx is larger than size after systemic tx.

"Clock" Positions, Quadrants and ICD-O Codes of the Breast



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CASE 4

- Clinical
 - Tumor Size:
 - 2.8 cm unifocal
 - Regional Nodes: FNA Right axilla
 - Distant Mets: Neg
 - Grade: G2
 - Her2: Pos
 - ER: Neg
 - PR: Neg
- Post Therapy Path
 - Tumor Size: 1.8 cm
 - Unifocal
 - Regional Nodes: 03/31
 - Distant Mets: Neg
 - Grade:
 - Her2:
 - ER:
 - PR:

Data Item	Value
Clinical T	cT2
Clinical T Suffix	
Clinical N	cN1
Clinical N Suffix	(f)
Clinical M	cM0
Clinical Stage Group	2B
Post Tx Path T	ypT1c
Post Tx Path T Suffix	
Post Tx Path N	ypN1a
Post Tx Path N Suffix	
Post Tx Path M	cM0
Post Tx Path Stage Group	88



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ADDITIONAL STAGING

- Pathological Staging is blank

YC – could be assigned from physician information prior to surgery, but is not required as the patient went on to surgery.



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CASE 4

Clinical

- Tumor Size:
- 2.8 cm unifocal
- Regional Nodes: FNA right axilla
- Distant Mets: Neg
- Grade: G2
- Her2: Pos
- ER: Neg
- PR: Neg

Post Tx Path

- Tumor Size:
- 1.8 cm unifocal
- Regional Nodes: 03/31
- Distant Mets: Neg
- Grade:
- Her2:
- ER:
- PR:

Data Item	Value
Summary Stage 2018	3-Regional Lymph Node
EOD Primary Tumor	100
EOD Regional Nodes	150
EOD Mets	00
Sentinel Nodes Pos	98
Sentinel Nodes Ex	00
Regional Nodes Pos	03
Regional Nodes Ex	31



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CASE 4

- Markers from biopsy specimen
 - ER- 0%
 - PR- 0%
 - HER-2 by IHC Positive (3+)
 - Ki-67 30%, high.

Data Item	Value
ER Summary	0
ER Percent Pos	000
ER Allred Score	00
PR Summary	0
PR Percent Pos	000
PR Allred Score	00
HER 2 Overall Summary	1
Ki 67	30
Oncotype DX Recur Score	XX9
Response Neoadjuvant Therapy	9



<https://cancerbulletin.facs.org/forums/forum/site-specific-data-items-grade-2018/102013-er-allred-score-when-neg-1>

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CASE 4

- 10/22/2020: Right breast 10:00 mass biopsy and FNA enlarged right axillary node
- 06/21/2021 Right modified radical mastectomy, left prophylactic mastectomy. Immediate right axillary lymphatic reconstruction. Right axillary dissection.

Data Item	Value
Surgical Diagnostic Staging Procedure	02
Surgical Procedure of Primary Site	52 (bilateral modified radical mastectomy, no mention of recon.)
Scope of Regional Lymph Node Surgery	5 (31 nodes removed)
Surgical Procedure Other Site	00



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FINAL REVIEW/ QUESTIONS



FABULOUS PRIZES



COMING UP!

- 9/2/21 Coding Pitfalls 2021
 - Janet Vogel, CTR
- New Season starts in October!

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CE'S

- Phrase
 - <https://survey.alchemer.com/s3/5729187/Breast-2021>
- Link





THANK YOU

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🌐 [HTTPS://WWW.NAACCR.ORG/](https://www.naaccr.org/)