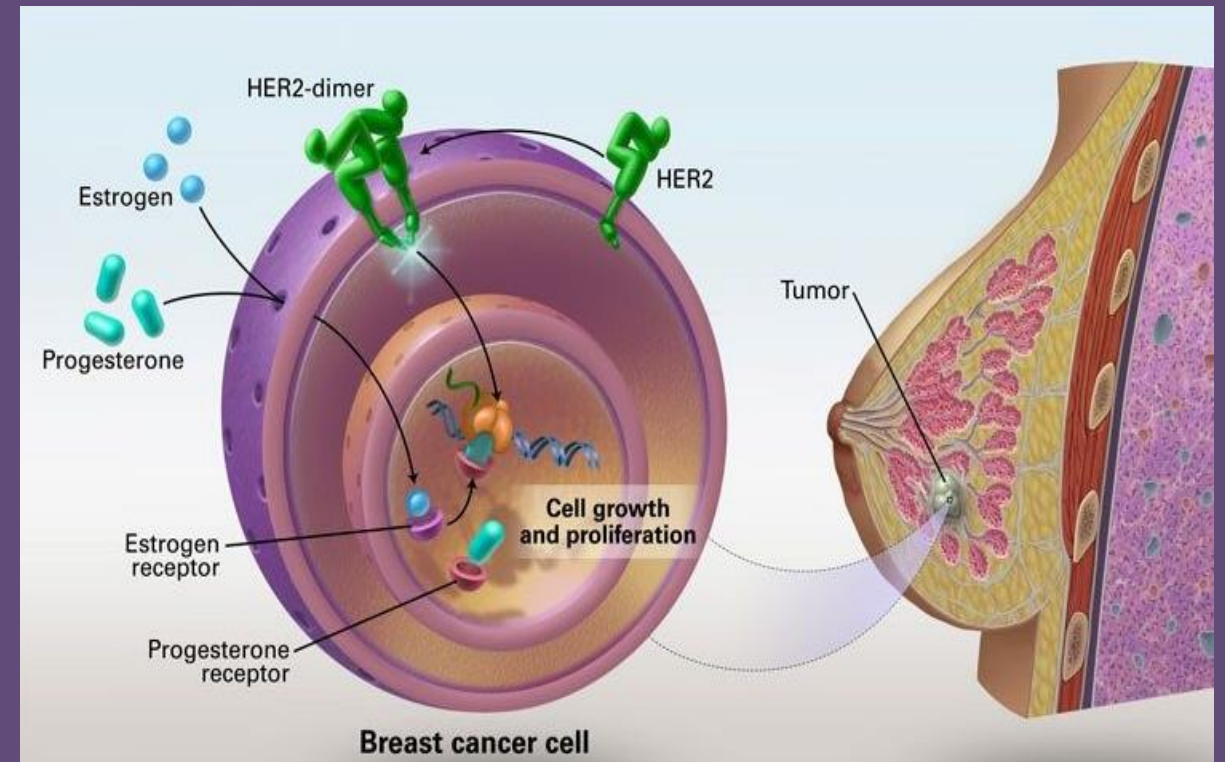


Coding Breast Cancer

Presenter:

Edith K. Ballard, DHI(c), MHA, MBA,
MsHIM, RHIA, CCA, CPC, COC, EHRC,
CRCR



Learning Objectives

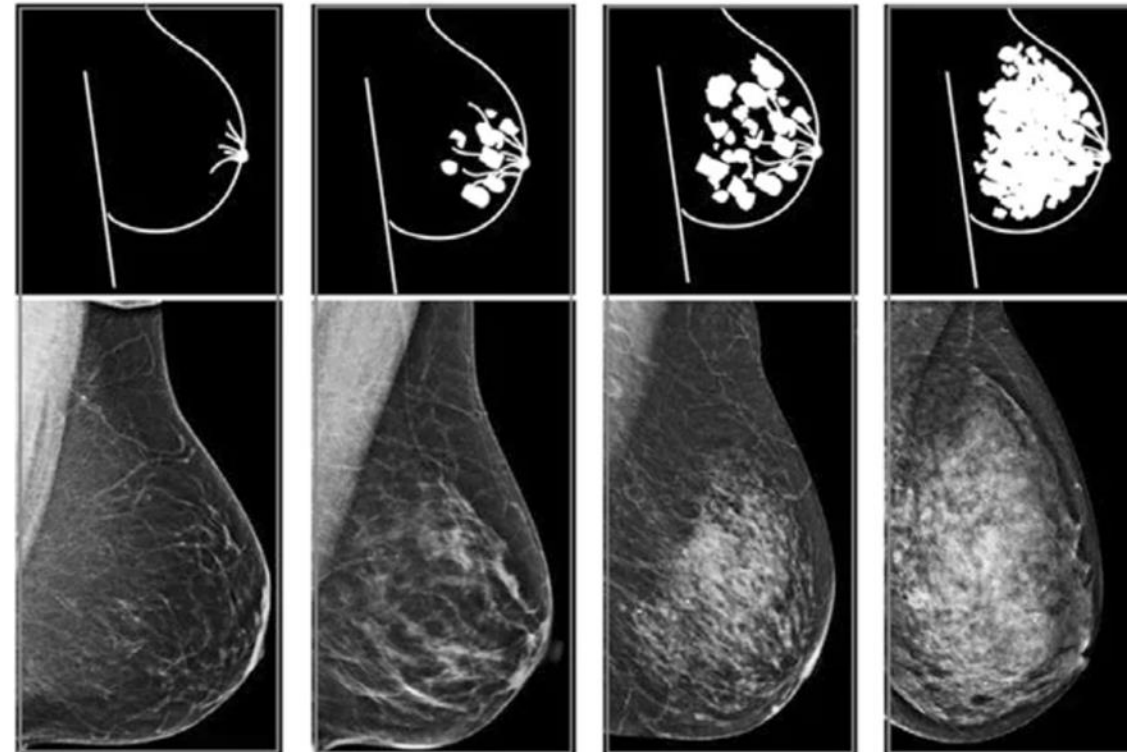
- **Understand different breast conditions**
- **Understand DCIS, LCIS, breast cancer after mastectomy, TNM Staging System, and breast-related lymph node metastasis**
- **Understand breast quadrants**



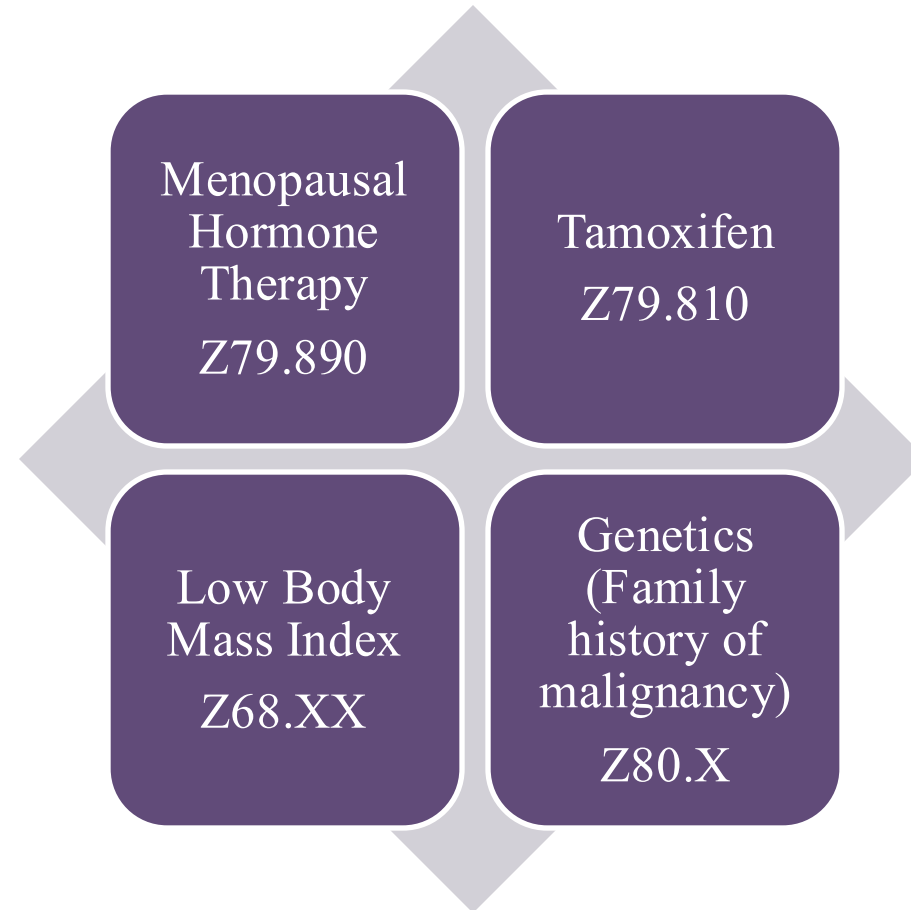
Breast Conditions

Breast Density

- A. Almost entirely fatty – very little dense breast tissue.**
- B. Scattered areas of fibroglandular density - mostly fatty tissue with some scattered areas of dense tissue.**
- C. Heterogeneously dense – mostly dense with some areas of fatty tissue.**
- D. Extremely dense – nearly all of the breast is dense, very little fatty tissue.**



What factors influence breast density?



Breast Density in ICD-10-CM

Subcategory R92.3 has been expanded to further capture the distinct types of breast density found during mammography, as well as laterality.

Mammographic fatty tissue density, right breast
Mammographic fatty tissue density, left breast
Mammographic fatty tissue density, bilateral breasts
Mammographic fibroglandular density, right breast
Mammographic fibroglandular density, left breast
Mammographic fibroglandular density, bilateral breasts
Mammographic heterogeneous density, right breast
Mammographic heterogeneous density, left breast
Mammographic heterogeneous density, bilateral breasts
Mammographic extreme density, right breast
Mammographic extreme density, left breast
Mammographic extreme density, bilateral breasts

Coding Example

MAMMO DIGITAL SCREENING BILATERAL W TOMO

Digital Mammogram evaluated with Computer Aided Detection (CAD).

COMPARISON:

The present examination has been compared to prior imaging studies performed at

FINDINGS:

1: There are three post biopsy clips in the left breast.

2: There are benign appearing calcifications in both breasts.

Tomosynthesis performed in CC and MLO projections.

IMPRESSION:

There is no mammographic evidence of malignancy.

The breasts are heterogeneously dense, which may obscure small masses.

Follow-up mammogram in 1 year is recommended.

Coding Path History

Enter Keyword: -- DENSE

DENS -- Dense breasts

Breast density specified as -- Mammographic

Mammographic breast density specified as -- Heterogeneous

Laterality of mammographic density of breast -- Bilateral

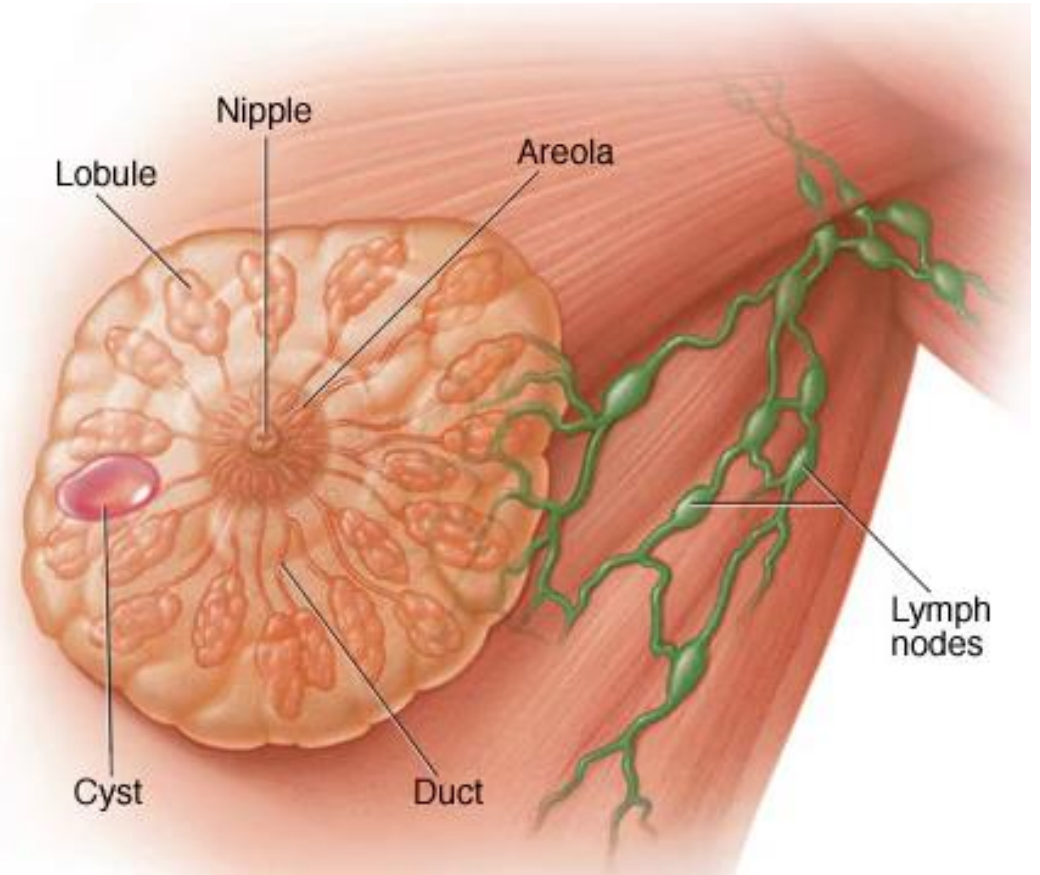
Mammographic density found on imaging of breast with -- Do not wish to code or already coded

[ICD-10-CM Diagnosis Codes](#)

R92333 Mammographic heterogeneous density, bilateral breasts

Breast Cyst

Breast cysts are fluid-filled sacs inside the breast. They are usually noncancerous (benign). You may have one or multiple breast cysts. It can often feel like a grape or a water-filled balloon, but sometimes can also feel firm.



Coding Example

US Breast Complete Right

COMPARISON:

The present examination has been compared to prior imaging studies performed : [REDACTED]

TECHNIQUE:

Real-time sonographic imaging was performed on the following regions:
right, breast (including all 4 quadrants and retroareolar region).
Images were obtained in multiple scanning planes.

FINDINGS:

No suspicious sonographic findings identified. An oval circumscribed hypoechoic mass measuring 0.6 x 0.4 x 0.3 cm in the right breast at 3:00, 3 cm from the nipple, is compatible with a cyst and corresponds with mammographic findings.

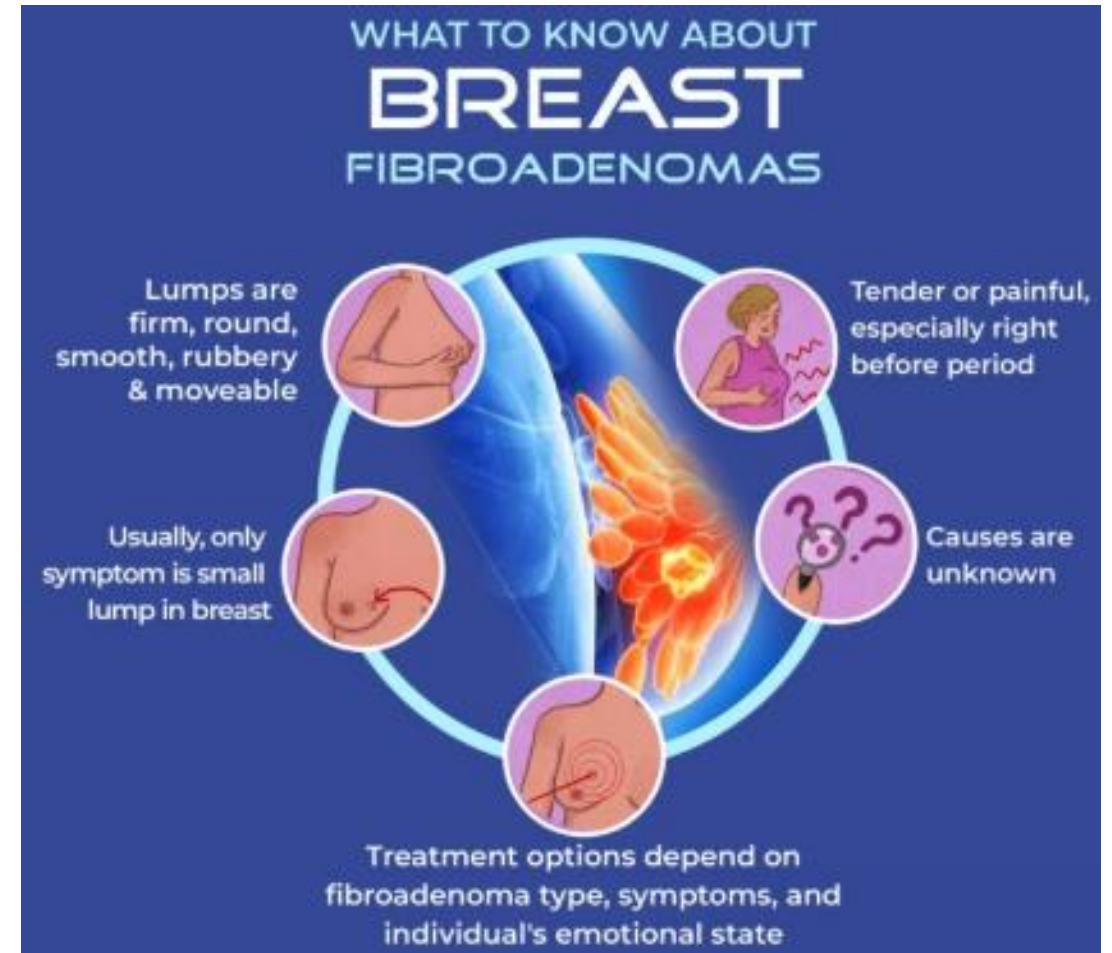
IMPRESSION:

Right breast cyst appears benign. Annual screening mammogram recommended.



Breast Fibroadenoma

A fibroadenoma is a solid breast lump. This breast lump is not cancer and occurs most often between ages 15 and 35.



Coding Example

Pathology Biopsy Interpretation: [redacted] [redacted] [redacted]

Collected [redacted] Status: Final result Visible to patient: [redacted]

Dx: Infiltrating duct carcinoma, NOS of b...

0 Result Notes

Component

Submitted Clinical

History

Infiltrating duct carcinoma, NOS of breast, NOS <Female; Unspecified> [C50.919]

Diagnosis

A. Right breast, 7 o'clock, 4 cm from nipple, MRI-guided core biopsy:

Fibroadenoma



Risk Factors for Breast Cancer

- **Increasing Age**
- **Personal history of breast conditions**
- **Personal history of breast cancer**
- **Family history of breast cancer**
- **Inherited genes that increase cancer risk**
- **Radiation exposure**

Paget's Disease

Paget's disease of the breast is a rare form of breast cancer. It starts on the nipple and extends to the dark circle of the skin (areola) around the nipple. Most people with Paget's also have underlying ductal breast cancer.





Ductal Carcinoma in situ vs. Lobular Carcinoma in situ, Breast Cancer Recurrence (Local, Regional, and Distant)

Breast Cancer- Most Common Type

Ductal carcinoma in situ (DCIS) (D05), develops & is contained in the milk ducts

*****do not confuse with infiltrating ductal adenocarcinoma (has begun to invade surrounding tissue)**



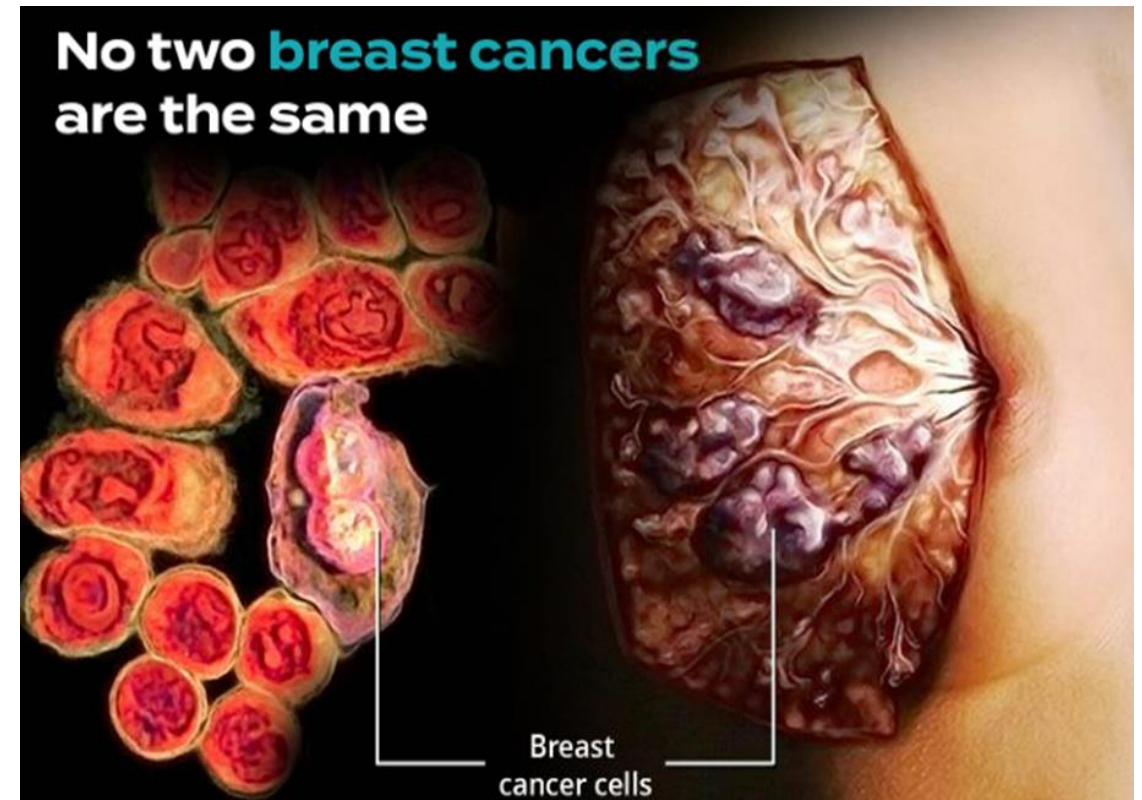
Other terminology indicating DCIS:

Intraepithelial, noninfiltrating, noninvasive, preinvasive

Excludes notes for D05 Carcinoma in situ of breast

- **Excludes 1**
 - Carcinoma in situ skin breast (D04.5)
 - Melanoma in situ of breast (skin) (D03.5)
 - Paget's disease of breast or nipple (C50.)

- **Excludes 2**
 - Malignant neoplasm of breast



Example of Excludes 1 for DCIS Breast

[D05]
EXCLUDES 1
carcinoma in situ of skin of breast (D04.5)
melanoma in situ of breast (skin) (D03.5)
Paget's disease of breast or nipple (C50.-)

---- is a **patient with carcinoma in situ (DCIS) of the breast and Paget's disease** admitted for surgical excision to remove the affected area of the nipple-areola complex, including the underlying breast tissue, to completely resect **the DCIS and associated Paget cells**, with margins. The specimen will be sent for final pathological analysis to confirm the extent of disease and assess for any potential invasive components.

Indication for surgery: "Right breast lesion diagnosed as **ductal carcinoma in situ (DCIS) with associated Paget's disease** of the nipple and areola, confirmed on biopsy."

Procedure description:

Anesthesia: General

Skin incision: "A circumferential incision was made around the nipple-areola complex, extending into the underlying breast tissue as needed to achieve adequate margins."

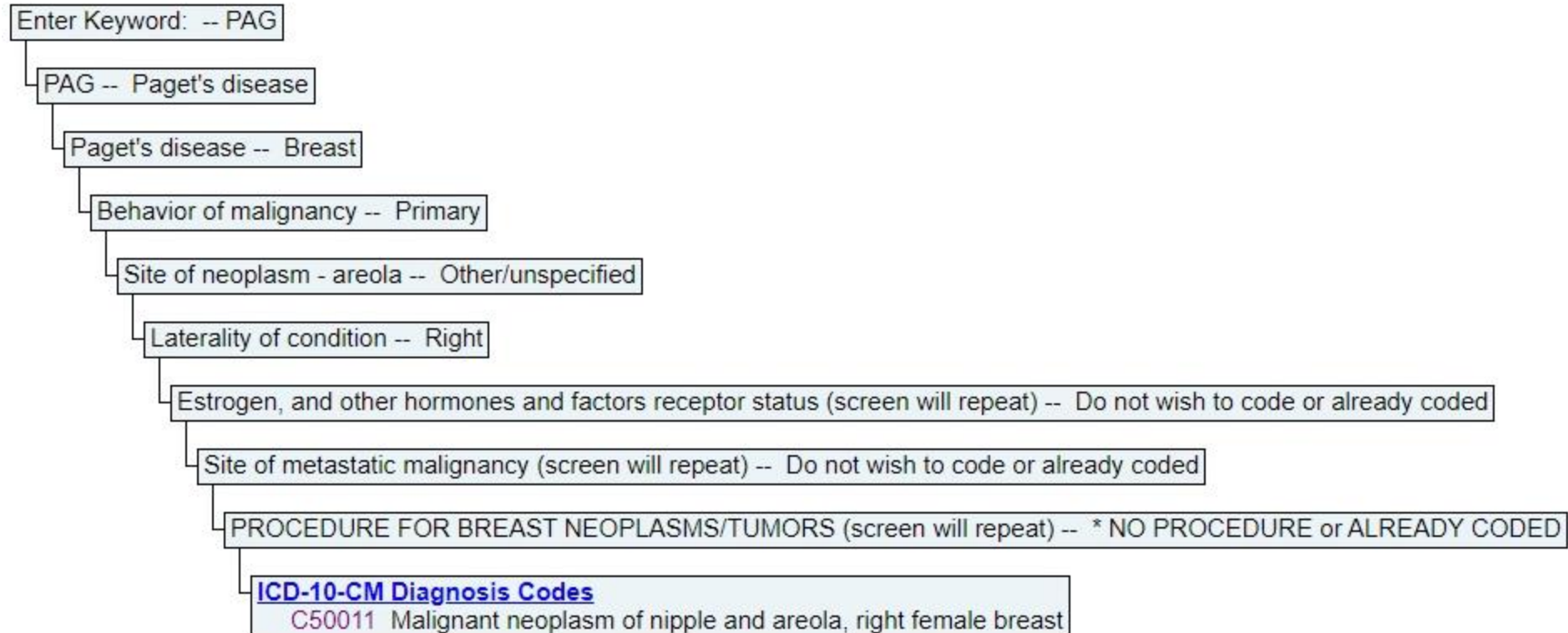
Dissection: "The nipple-areola complex was carefully dissected, ensuring complete removal of the involved skin and underlying breast tissue."

Hemostasis: "Bleeding was controlled with meticulous hemostasis techniques."

Specimen handling: "The surgical specimen was carefully excised and labeled for final pathological examination."

Pathological findings (preliminary): "Gross examination revealed a well-circumscribed lesion involving the nipple and areola with underlying breast tissue." "**Microscopic examination revealed ductal carcinoma in situ (DCIS) with associated Paget cells** confined to the nipple and areola epithelium, with negative margins."


Coding Pathway for DCIS and Paget Disease



When there is documentation of both carcinoma in situ (noninvasive) and malignant (invasive) at the same site, a code for the carcinoma in situ neoplasm is not assigned.

Example of Excludes 1 for DCIS Breast

A female patient had a nonpalpable abnormality on mammography of the right breast, **in the upper outer quadrant (UOQ)**. She underwent mammographically localized excisional biopsy. **The lesion was shown to be malignant, with infiltrating ductal carcinoma and ductal carcinoma in situ (DCIS)**. Estrogen and Progesterone receptors are negative. HER 2 negative.

Diagnosis Code Detail	
Code	Description
 C50411	Primary Malignant neoplasm of upper-outer quadrant of right female breast
Z17421	Hormone receptor negative with human epidermal growth factor receptor 2 negative status

When there is documentation of both carcinoma in situ (noninvasive) and malignant (invasive) at the same site, a code for the carcinoma in situ neoplasm is not assigned.

Example of Excludes 2 for DCIS Breast

[D05]

EXCLUDES 2

malignant neoplasm of breast (C50.-)

Date of Procedure:--

Surgeon Name:--

Procedure: Left breast lumpectomy X 2 with sentinel lymph node biopsy

Indications: Biopsy-proven ductal carcinoma in situ of the left breast and Invasive medullary carcinoma

Preoperative Diagnosis: Left breast masses, suspicious for malignancy

Findings: Two palpable masses measuring approximately 2.5 cm diameter was identified in the upper outer quadrant of the left breast and 2.0 cm mass in the lower outer quadrant. A small amount of blue dye was injected percutaneously to identify the sentinel lymph node in the left axilla. A skin incision was made over the palpable masses, and the tumors were carefully dissected with appropriate margins. The sentinel lymph node was identified and excised. Specimens were sent for immediate frozen section analysis, which confirmed the presence of invasive medullary carcinoma in upper outer quadrant and ductal carcinoma in situ in lower outer quadrant with negative margins.

Procedure Details: Skin incision: 3 cm Tumor excision: 2.5 cm diameter, and 2.0 with negative margins Sentinel lymph node: 1 node removed

Pathology Findings (Preliminary): Ductal carcinoma in situ and invasive medullary carcinoma, Estrogen Receptor positive, Progesterone Receptor positive, HER2 negative Sentinel lymph node negative

Complications: None

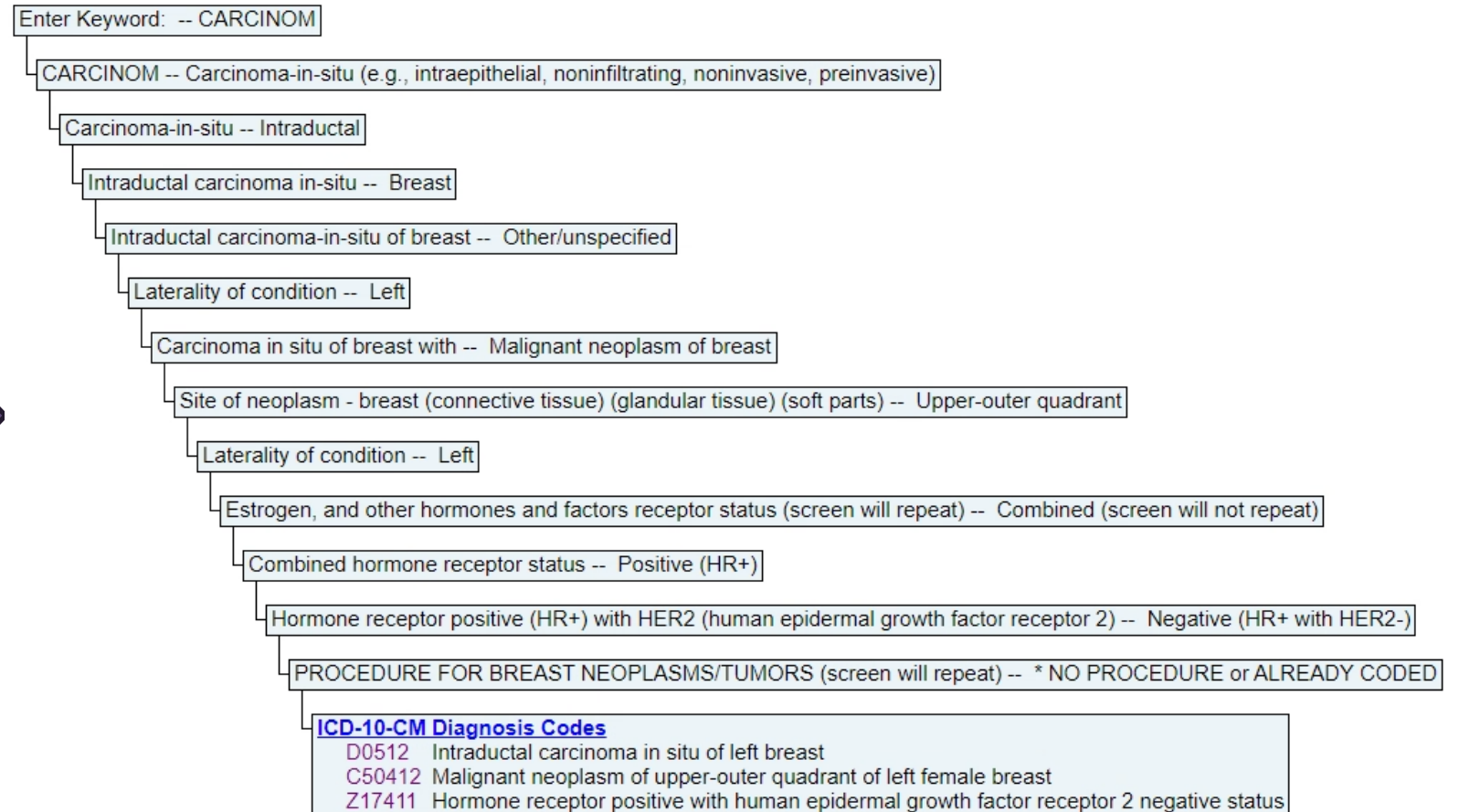
Estimated Blood Loss: Minimal

Disposition: Patient tolerated the procedure well and was taken to the recovery room in stable condition.

Postoperative Instructions: Routine wound care Follow-up with surgeon in 1 week to review pathology results and discuss further treatment options

Coding Pathway

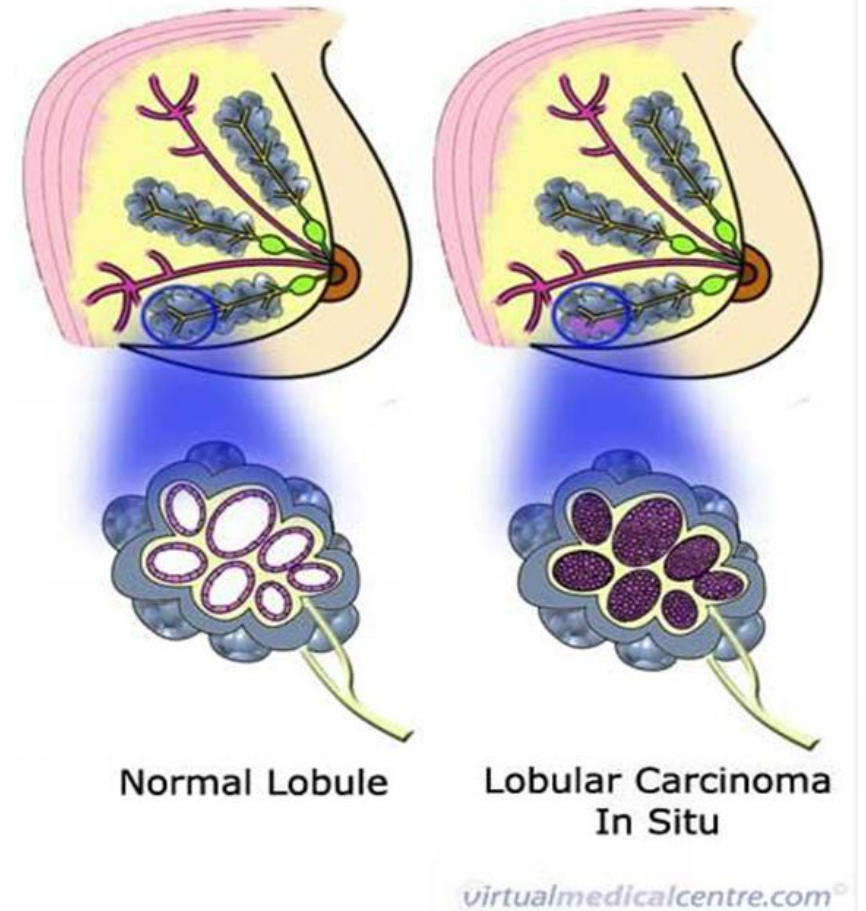
Carcinoma in situ & Invasive Malignant Carcinoma



Lobular Carcinoma in situ (LCIS)

LCIS (D05.0-D05.1) develops in a milk-producing gland (lobule) and does not spread into nearby breast tissue. Some cells lining the lobe has started to become abnormal. LCIS is noncancerous.

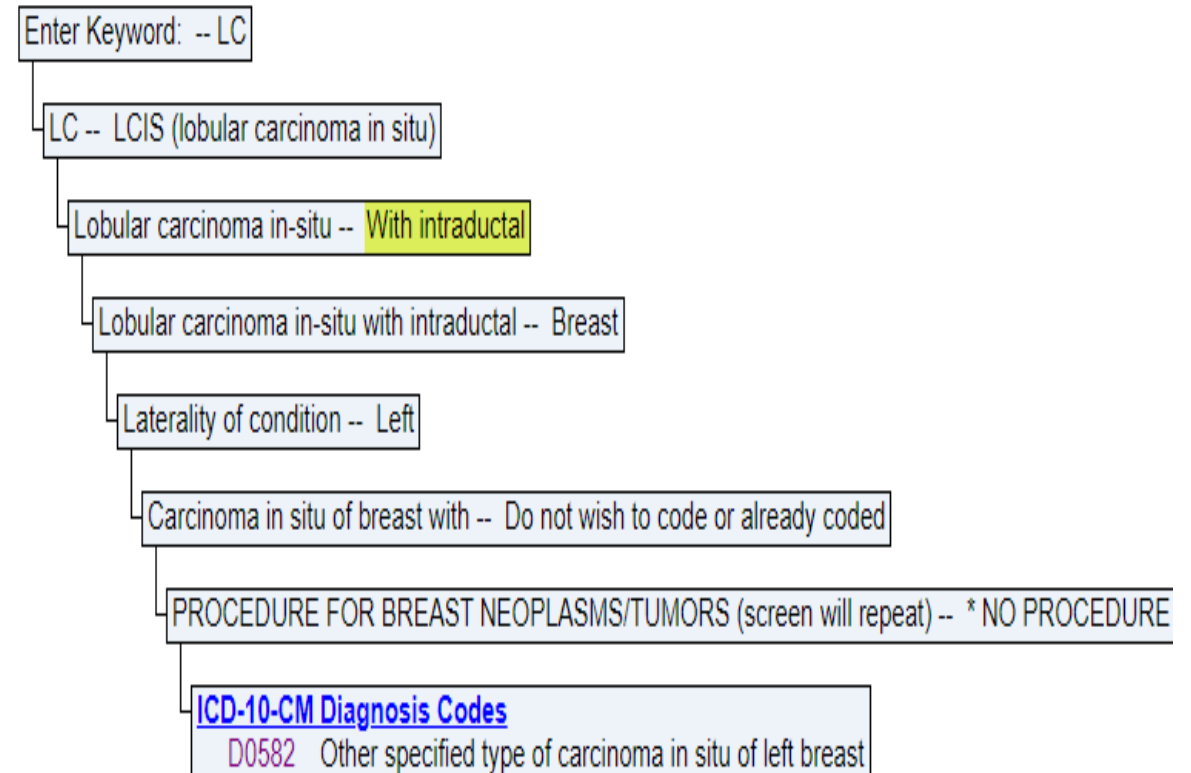
Other terminology indicating LCIS-
Lobular neoplasia



Coding Pathway: LCIS with intraductal (confined within the milk duct)

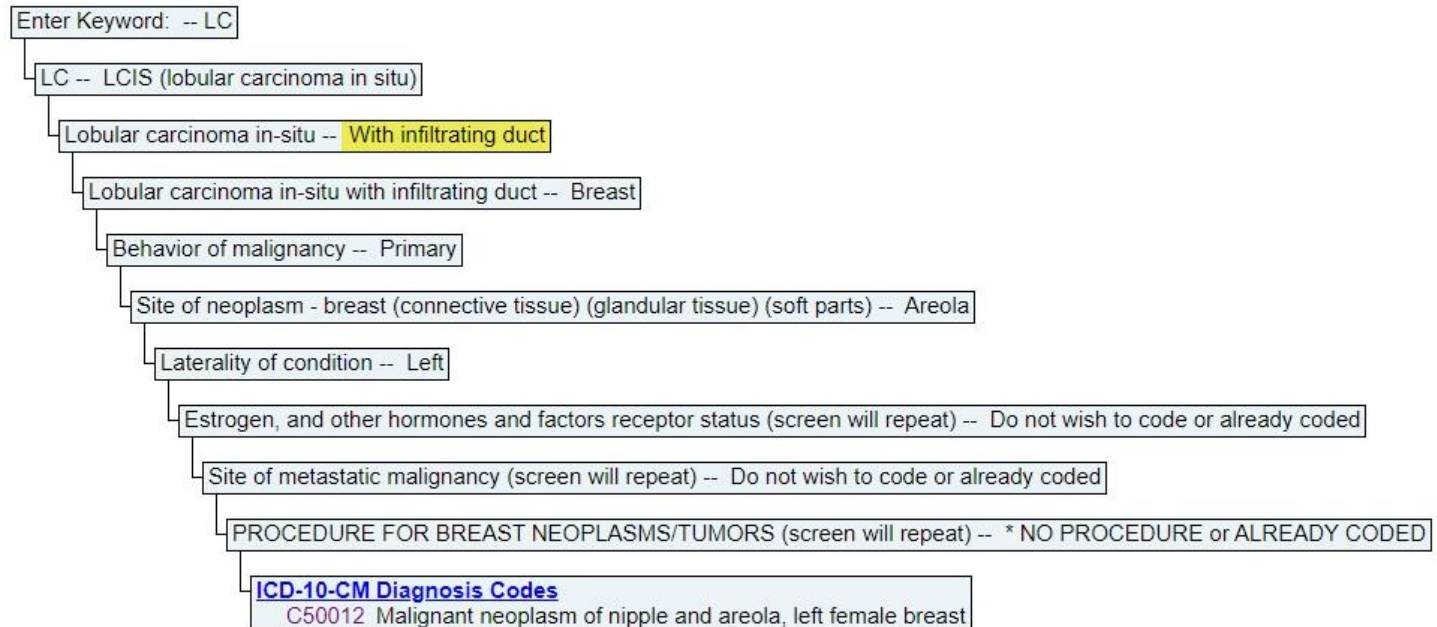
The patient is a --year-old African American female who reported a brief history of anabolic steroid use and no family history of breast cancer. The patient had a history of multiple surgical procedures for recurrent gynecomastia over the course of many years. The patient presented to our institution for bilateral breast reduction for cosmetic purposes. Pathologic evaluation demonstrated a few foci of **LCIS of left breast with atypical duct cells** in a background of gynecomastia. Due to the highly unusual finding of LCIS in this patient, genetic analysis was performed, and the genotype was confirmed.

The patient was subsequently referred to our breast imaging center for a screening bilateral breast MRI. This demonstrated mild diffuse background enhancement bilaterally without suspicious enhancing signal abnormalities in either breast. Screening annual breast MRI was recommended in view of her **highly unusual diagnosis of LCIS**.



Coding Pathway: LCIS with infiltrating duct (spread beyond milk duct & into tissue)

This patient is a --year-old white female who reported no past surgical history but with a family history of breast cancer. The patient was seen in office for an abnormal mammogram. She is a C-sized cup. An MRI was ordered and showed 1.5 cm **mass with enhancement of left areola and surrounding tissue**. The Mass was biopsied, and pathology confirmed **LCIS of left breast tissue with focus of microinvasion of the nipple and areola**.



Breast Cancer vs. Breast Skin Cancer



**Skin Cancer
On Breast?**
Or Is It Breast Cancer



When To Code Skin Cancer of Breast

As Primary.....

- Cancer **originates** on breast skin
 - Basal cell carcinoma (C44.511)
 - Squamous cell carcinoma of skin (C44.521)
 - Sebaceous cell carcinoma (C44.591)
 - Other specified cancer skin breast (C44.591)

- Cancer reoccurs on breast skin

- Cancer reoccurs at mastectomy site

As Secondary

- Cancer has **spread to** skin of breast from breast itself or from another part of the body
 - Secondary malignant neoplasm of skin (C79.2)

Coding Example - Mastectomy Site (Skin) Recurrence

Operative Report

Indications: Patient presents with a skin lesion at the right mastectomy site, biopsy proven to be invasive ductal carcinoma.

Preoperative Diagnosis: Recurrent local breast carcinoma, skin

Procedure Description:

Anesthesia: General Anesthesia

Positioning: Supine

Incision: A curvilinear incision was made over the palpable mass within the right mastectomy scar, extending approximately.

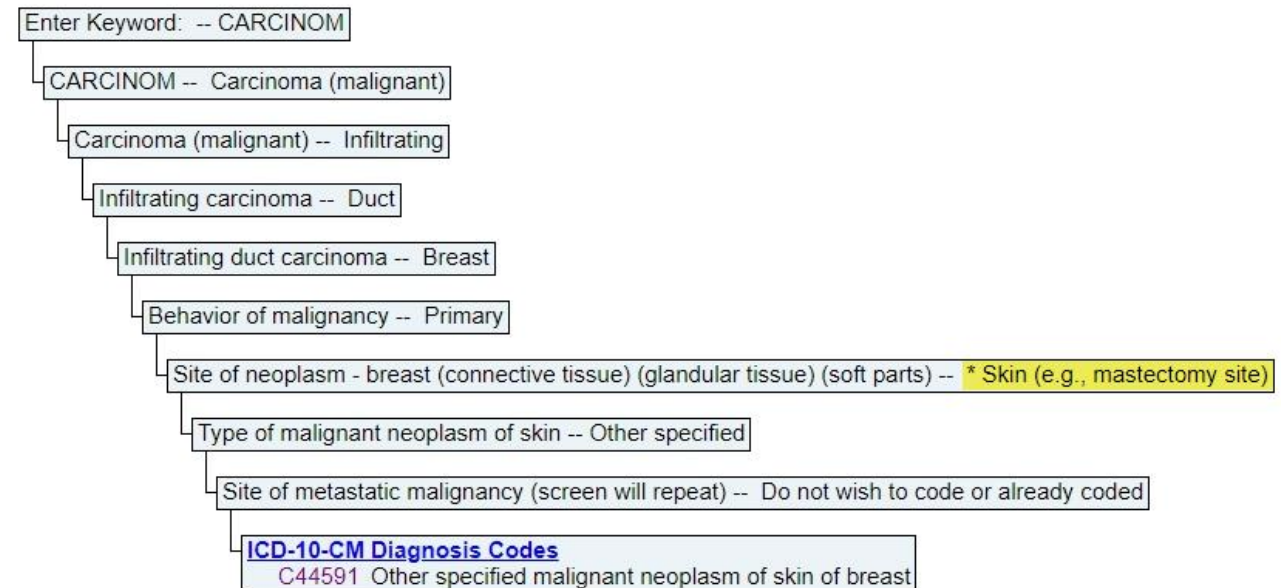
Dissection: The subcutaneous tissue was carefully dissected to expose the underlying chest wall fascia.

Tumor Excision: A mass identified and carefully excised with a margin of XX mm of normal tissue.

Hemostasis: Bleeding was controlled with electrocautery.

Pathology: The surgical specimen was sent to pathology for immediate frozen section analysis.

Closure: The incision was closed with sutures in layers, with subcutaneous sutures and skin staples.



Coding Example - Mastectomy Site (Breast Tissue) Recurrence

Operative Report

Indications: Patient presents with a palpable mass **within the right mastectomy scar**, confirmed by biopsy to be invasive ductal carcinoma.

Preoperative Diagnosis: Recurrent breast carcinoma, right chest wall

Procedure Description

Anesthesia: General Anesthesia

Positioning: Supine

Incision: A curvilinear incision was made over the palpable mass within the right mastectomy scar, extending approximately.

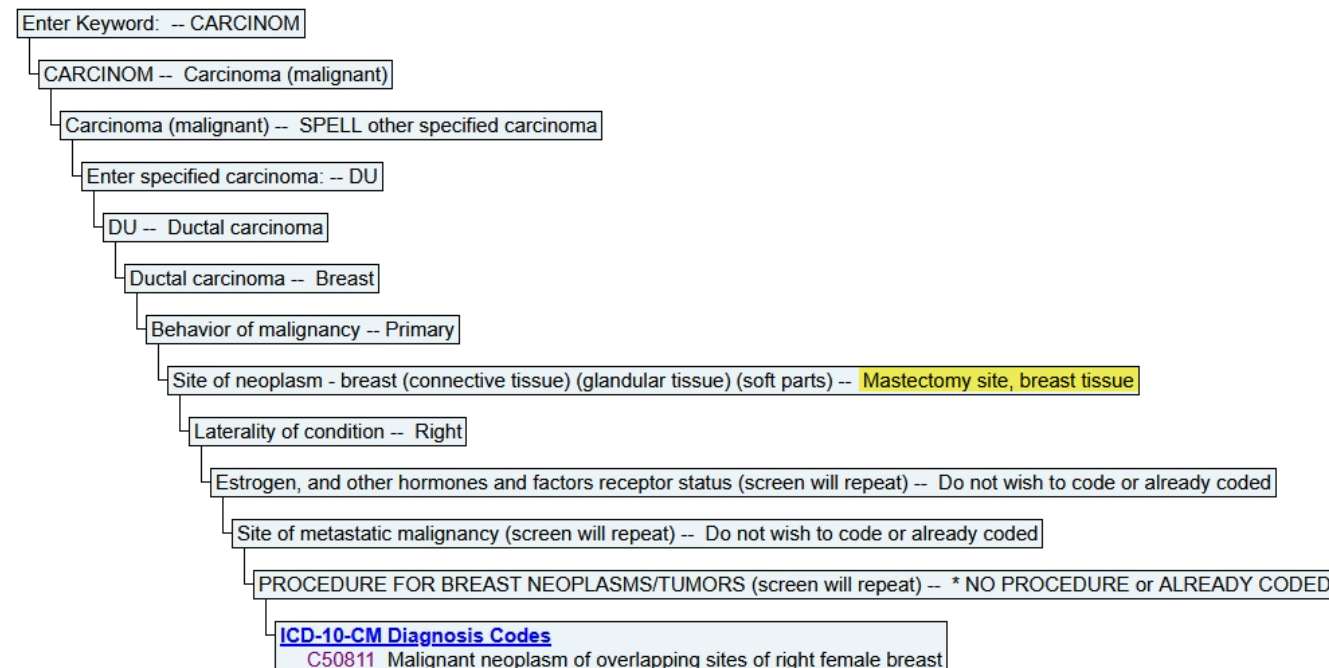
Dissection: The subcutaneous tissue was carefully dissected to expose the underlying chest wall fascia.

Tumor Excision: A mass identified and carefully excised with a margin of XX mm of normal tissue.

Hemostasis: Bleeding was controlled with electrocautery.

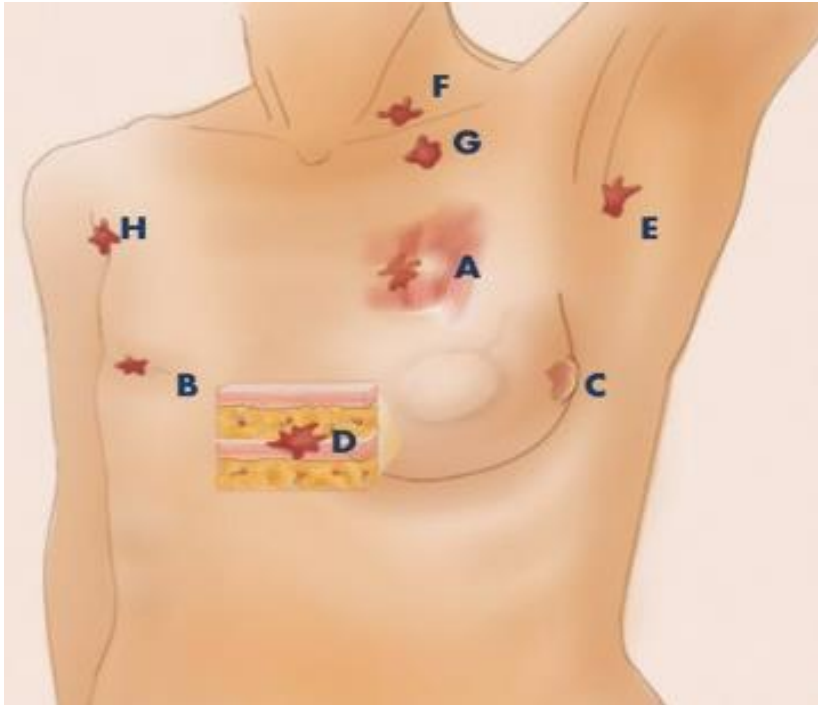
Pathology: The surgical specimen was sent to pathology for immediate frozen section analysis.

Closure: The incision was closed with sutures in layers, with subcutaneous sutures and skin staples.

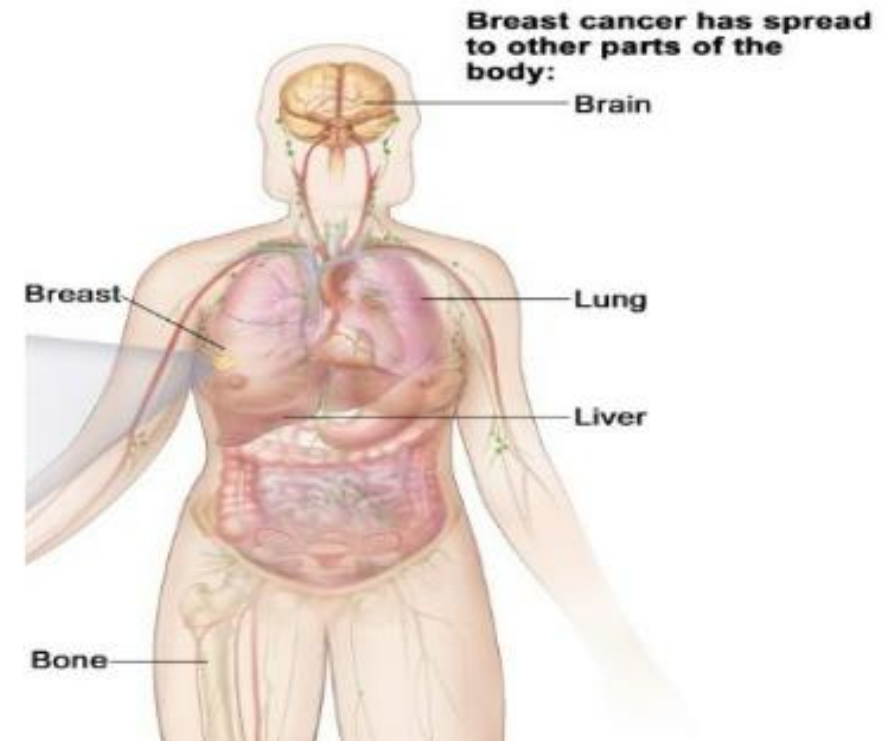


Other Breast Cancer Recurrence Sites

Local Recurrence

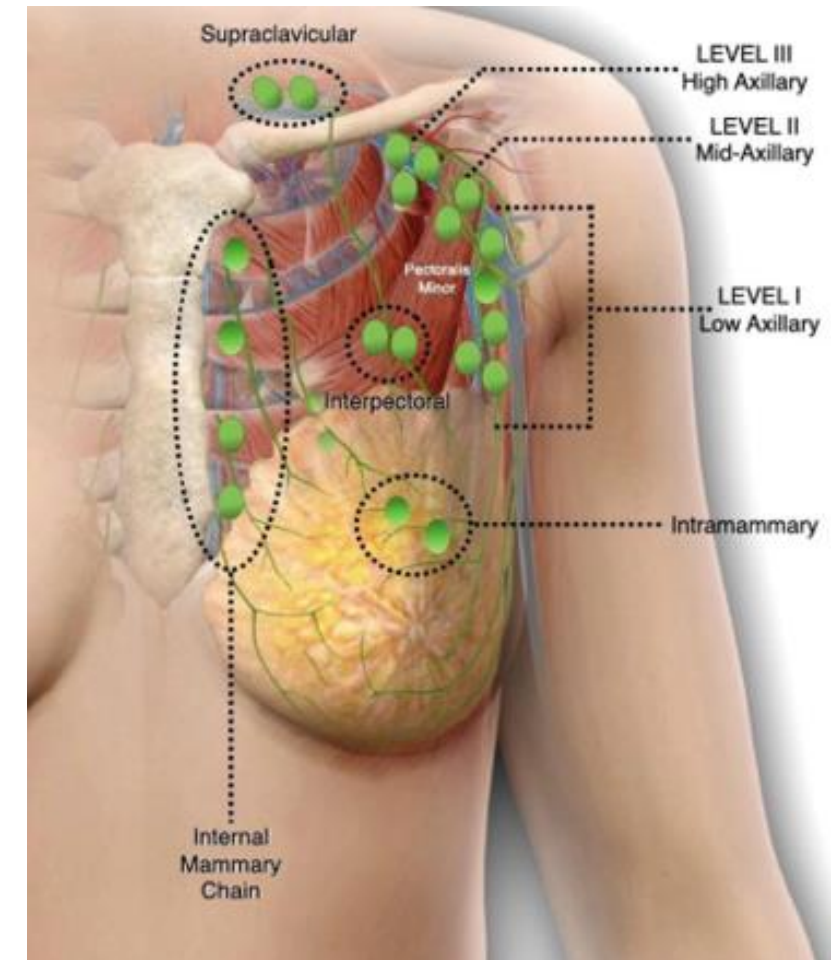


Regional/Distant Recurrence



Lymph Nodes in Relation to Breast

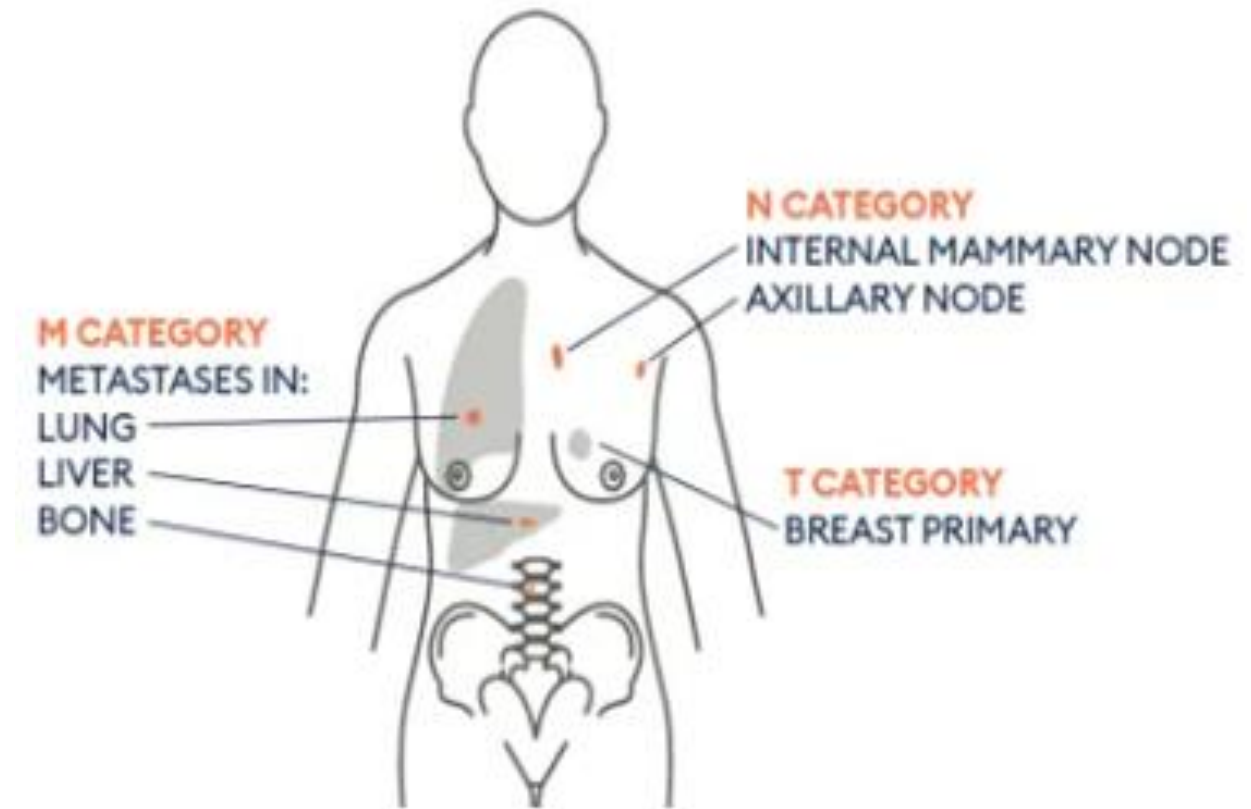
- **C77.3 – Secondary and unspecified malignant neoplasm of axilla and upper limb lymph nodes unspecified**
 - Secondary and unspecified malignant neoplasm of pectoral lymph nodes
 - (pectoral=relating to breast or chest)
 - (axillary nodes can be Anterior (pectoral), Posterior (subscapular), Lateral (humeral), or Central)
- **C77.1 – Secondary and unspecified malignant neoplasm if intrathoracic lymph nodes**
 - Types of intrathoracic lymph nodes
 - Parasternal lymph nodes: Also known as internal thoracic lymph nodes, these are small nodes located in the intercostal spaces along the mammary vessels.



Stage (extent) of Breast Cancer

TNM System

- **T** stands for the main (primary) tumor (Tis is carcinoma in situ)
- **N** stands for spread to nearby lymph nodes (N0, N1, N2, or N3)
- **M** stands for metastasis (spread to distant parts of the body) (M0, M1)

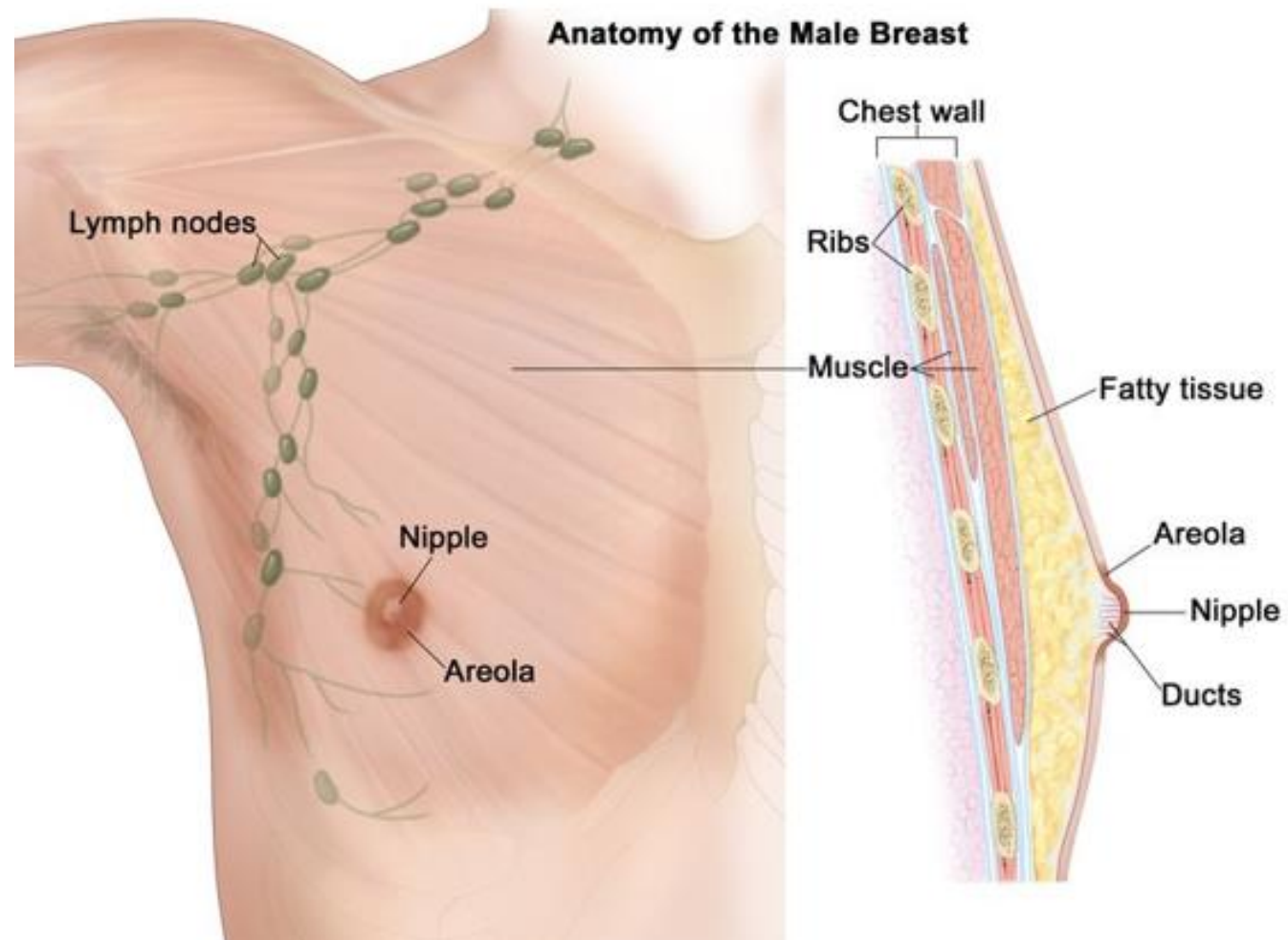


If TNM staged by pathologist, the letter p will be before the T and N letters-for example, pT1,N0



Male Breast Cancer

Male Breast Cancer

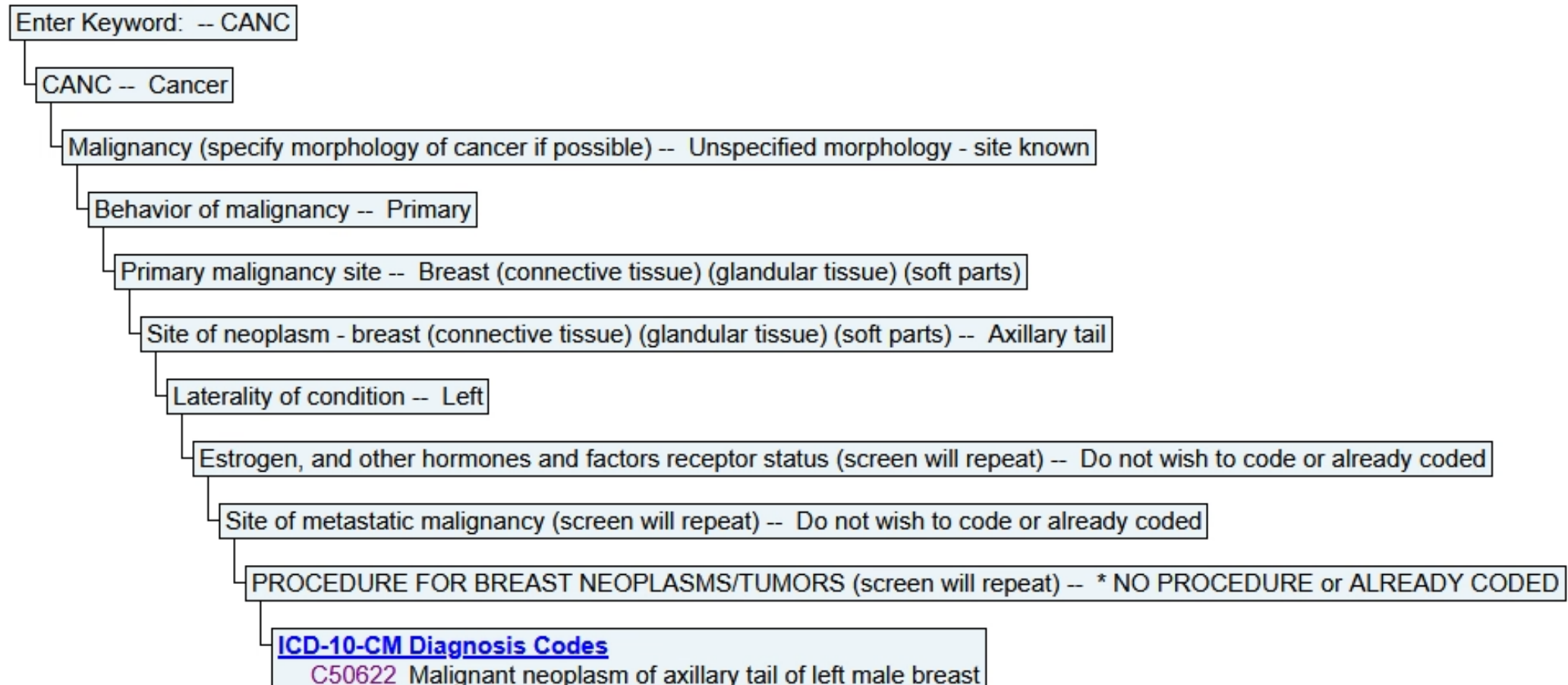


Types of Male Breast Cancer

- Infiltrating ductal carcinoma: Cancer that has spread beyond the cells lining the ducts in the breasts. This is the most common type of breast cancer in men.
- Ductal carcinoma in situ: Abnormal cells that are found in the lining of a duct; also called intraductal carcinoma.
- Inflammatory breast cancer: A type of cancer in which the breast looks red and swollen and feels warm.
- Paget disease of the nipple: A tumor that has grown from the ducts beneath the nipple onto the surface of the nipple.



Coding Pathway for Male Breast Cancer

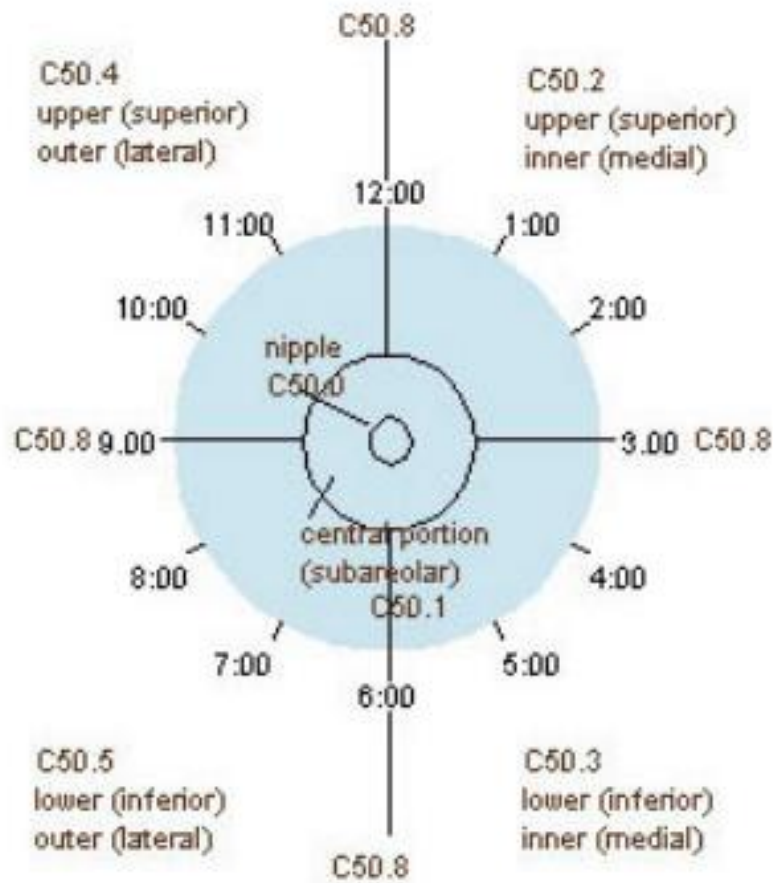




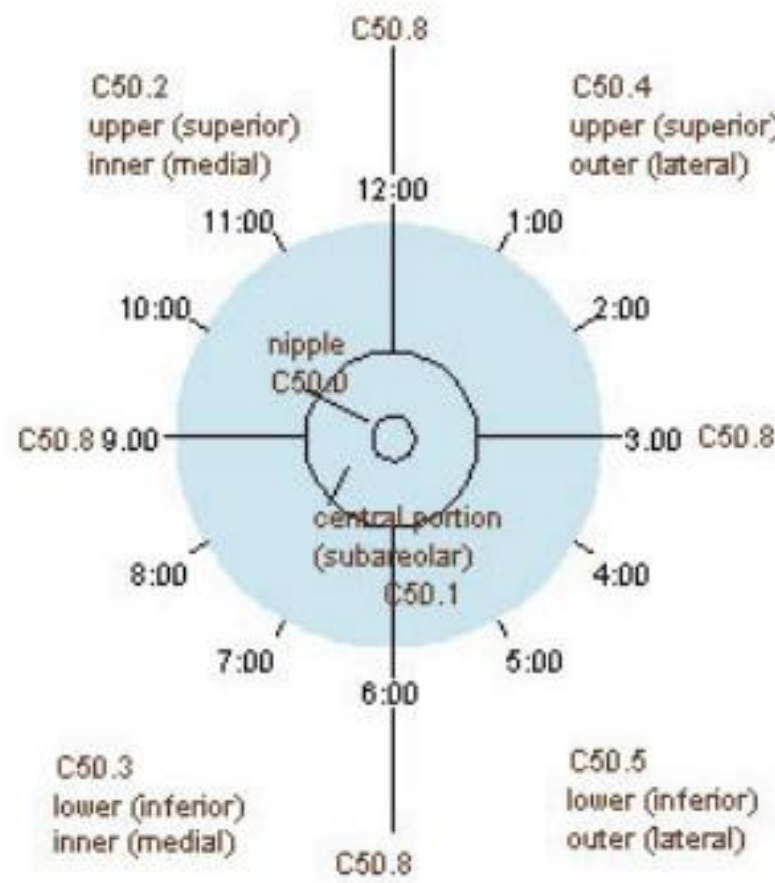
Breast Quadrants



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



RIGHT BREAST



LEFT BREAST

Overlapping Quadrants of Breast

Nosology Help Message

Overlapping site boundaries of primary malignant neoplasms:

A primary malignant neoplasm that overlaps two or more contiguous (next to each other) sites should be classified to the subcategory or code .8 (overlapping lesion), unless the combination is specifically indexed elsewhere.

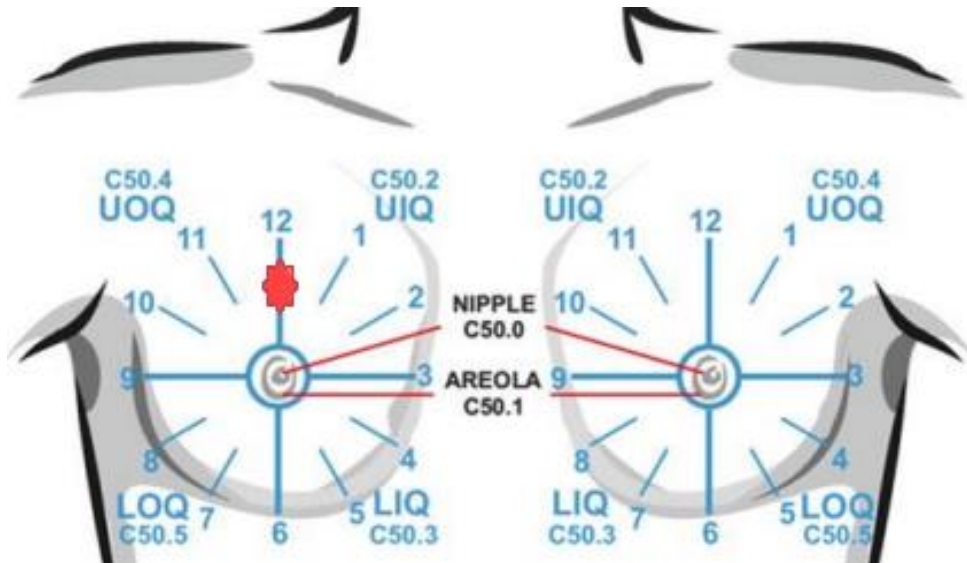
For multiple neoplasms of the same site that are not contiguous such as tumors in different quadrants of the same breast, codes for each site should be assigned.

References:

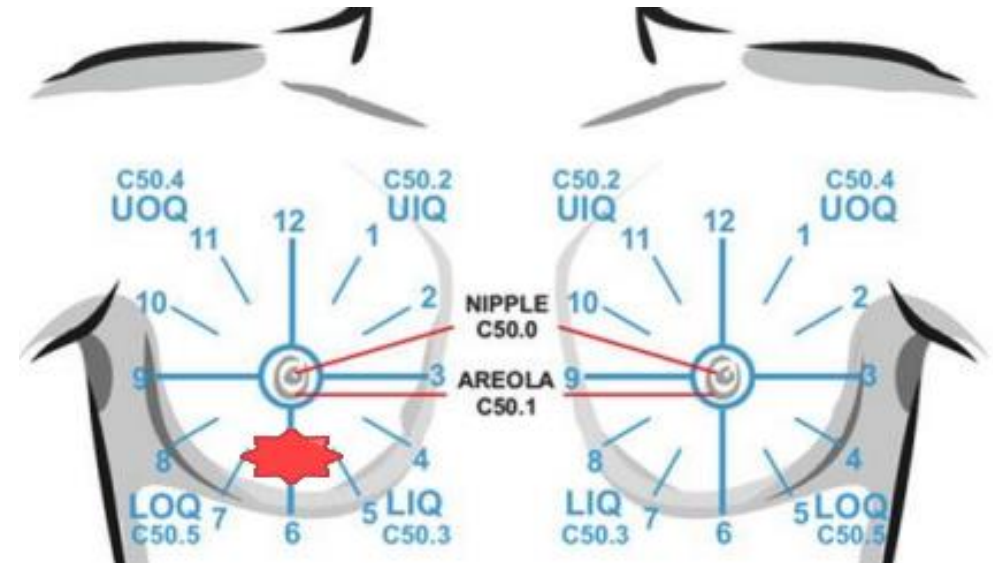
ICD-10-CM Official Guidelines for Coding and Reporting

Overlapping Sites Coding Examples (C50.8-)

A female with Infiltrating ductal carcinoma, of the right breast at 12 o'clock.

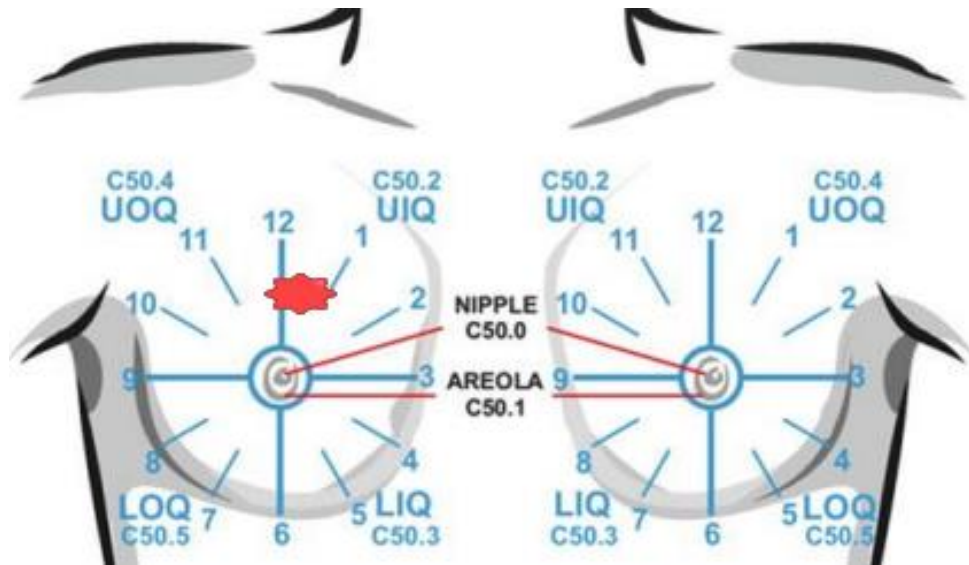


A female with Infiltrating ductal carcinoma, of the right breast from 5 to 7 o'clock.

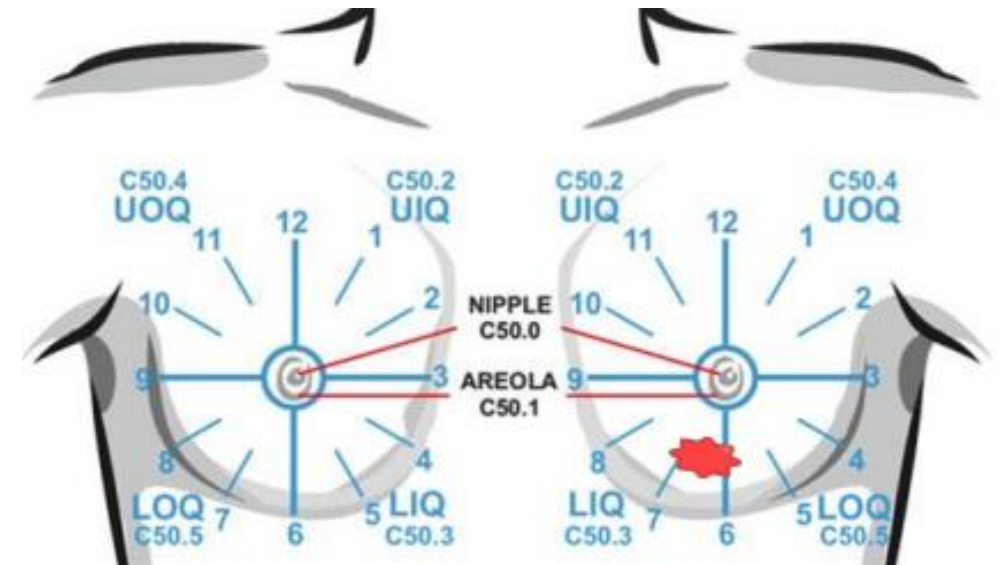


Quadrant Specific Coding

A female with Infiltrating ductal carcinoma, of the right breast at 1 to 12 o'clock. Code to the specific quadrant, not overlapping.

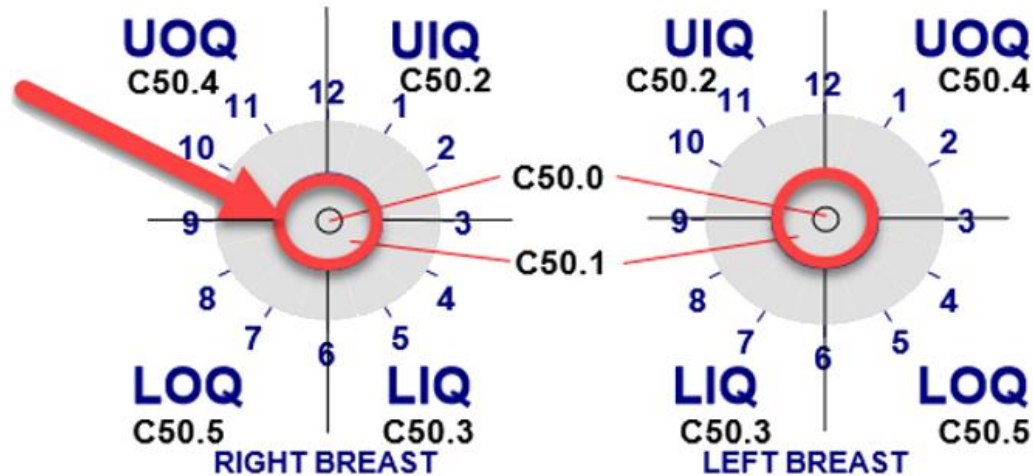


A female with Infiltrating ductal carcinoma, of the left breast from 6 to 7 o'clock. Code to the specific quadrant, not overlapping.



9 O'Clock Subareolar Breast Cancer

O'Clock Positions and Codes Quadrants of Breasts

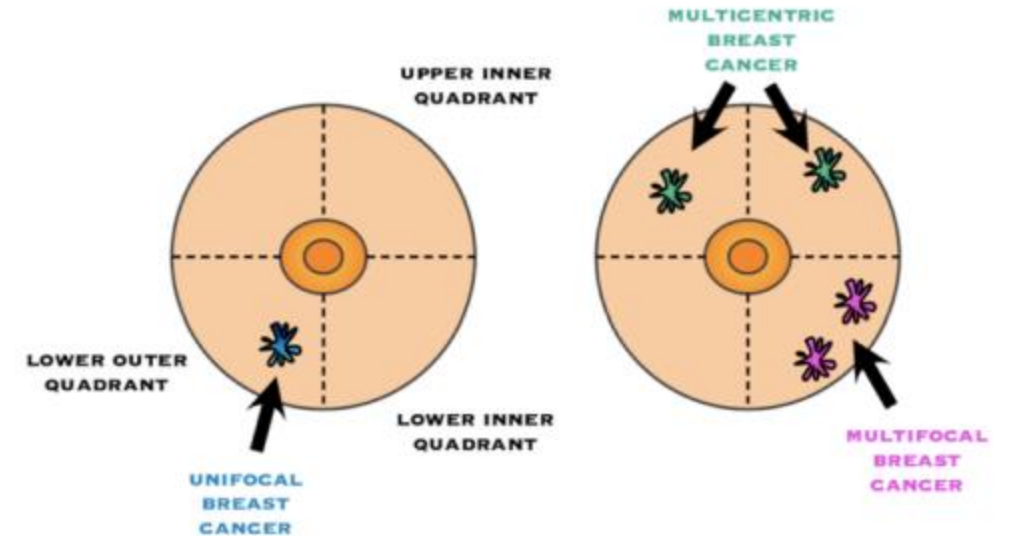
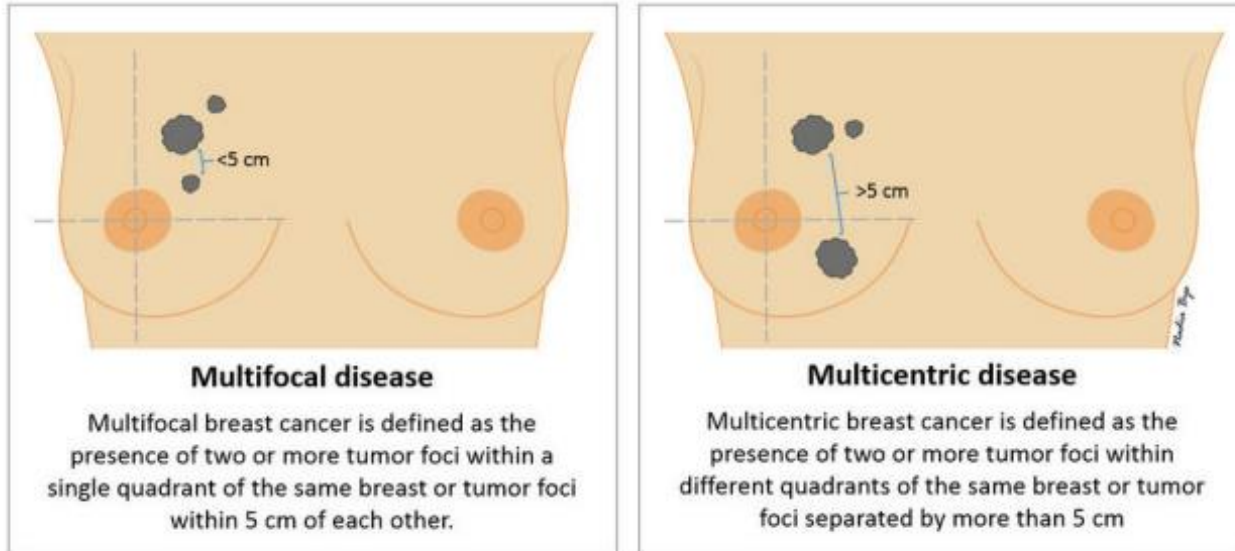


C501 Central portion of breast (subareolar) area extending 1 cm around areolar complex
Retroareolar
Infraareolar
Next to areola, NOS
Behind, beneath, under, underneath, next to, above, cephalad to, or below nipple
Paget disease with underlying tumor
Lower central



Multicentric Breast Cancer

Multicentric – Multifocal Breast Cancer



Multicentric Breast Cancer

Nosology Help Message

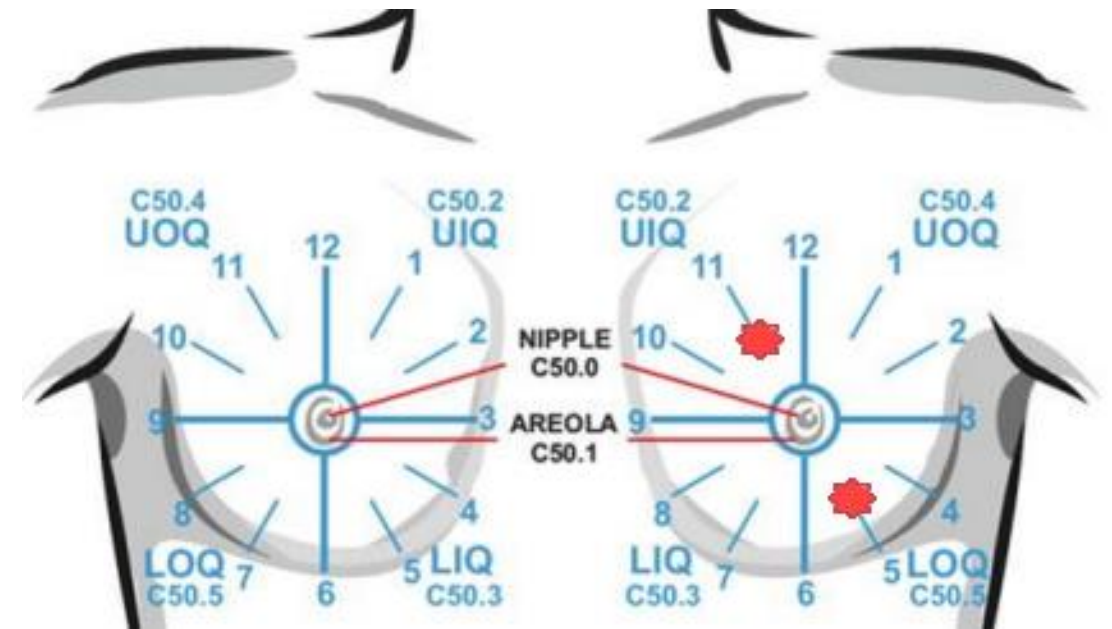
Overlapping site boundaries of primary malignant neoplasms:

A primary malignant neoplasm that overlaps two or more contiguous (next to each other) sites should be classified to the subcategory or code .8 (overlapping lesion), unless the combination is specifically indexed elsewhere.

For multiple neoplasms of the same site that are not contiguous such as tumors in different quadrants of the same breast, codes for each site should be assigned.

References:

ICD-10-CM Official Guidelines for Coding and Reporting



Coding Example - Multicentric Breast Cancer

A 36 y/o female with recently diagnosed left multicentric, pre-menopausal, Invasive ductal carcinoma.

US-Guided core biopsy LEFT breast 5:00 with clip placement: Invasive ductal carcinoma, intermediate nuclear grade, histologic grade 1. ER 70%, PR 100%, HER-2 0, Ki-67 5%.

US-Guided FNA biopsy LEFT breast 11:00 with clip placement: Invasive ductal carcinoma (ER+, PR+, HER+), Ki-67 75%.

+ Diagnosis Code Detail	
Code	Description
HC C50212	Primary Malignant neoplasm of upper-inner quadrant of left female breast
HC C50512	Malignant neoplasm of lower-outer quadrant of left female breast
Z17410	Hormone receptor positive with human epidermal growth factor receptor 2 positive status



Hormone Receptor Status

Receptor Status

Hormone Receptor (HR) Coding Tip Sheet

HR STATUS			ICD-10 CODES
ER	PR	HER2	
+	+	-	Z17.411
+	+	+	Z17.410
+	-	-	Z17.411; Z17.22
+	-	+	Z17.410; Z17.22
-	+	-	Z17.411; Z17.1
-	+	+	Z17.410; Z17.1
-	-	-	Z17.421
-	-	+	Z17.420



Receptor Status Documentation

Acceptable

- ER-, PR-, HER2-
- ER+, PR+, HER2+
- ER Negative
- PR Negative
- HER2 Negative
- ER Positive
- PR Positive
- HER2 Positive

Not Acceptable

- ER 95%
- ER 1%
- PR 100%
- PR 5%
- HER2 Equivocal
- HER2 score 2+

Coding Example

79 y.o. female with Infiltrating duct carcinoma, NOS of central portion of breast **Right** which is ER+, PR+, HER2+.

Patient also has Infiltrating ductal carcinoma of overlapping sites of the **Left** female breast with receptor statuses as follows: ER: Positive, PR: Positive, HER2: Negative.

+ Diagnosis Code Detail	
Code	Description
C50111	Primary Malignant neoplasm of central portion of right female breast
Z17410	Hormone receptor positive with human epidermal growth factor receptor 2 positive status
C50812	Malignant neoplasm of overlapping sites of left female breast
Z17411	Hormone receptor positive with human epidermal growth factor receptor 2 negative status

Coding Example

69 y.o. female with Infiltrating duct carcinoma, NOS of overlapping lesion of breast **Right**.


Pathologic: Stage IIIB (rpTX, pN3b, cM0, G2, ER+, PR-, HER2-)

Diagnosis Code Detail	
Code	Description
HC C50811	Primary Malignant neoplasm of overlapping sites of right female breast
Z17411	Hormone receptor positive with human epidermal growth factor receptor 2 negative status
Z1722	Progesterone receptor negative status

Coding Example

43 y.o. female with Inflammatory carcinoma of overlapping lesion of breast **Right**.

Pathologic stage: (ypT4d, pN3a, pM1, ER+, PR+, HER2-)

Diagnosis Code Detail	
Code	Description
 C50811	Primary Malignant neoplasm of overlapping sites of right female breast
Z17411	Hormone receptor positive with human epidermal growth factor receptor 2 negative status

Coding Example

80 y.o. female with Inflammatory duct carcinoma, NOS of overlapping lesion of breast **Left**.

The invasive carcinoma is **positive** for estrogen receptor (99%, strong intensity), **positive** for progesterone receptor (99%, strong intensity), and *equivocal* for HER2 overexpression (2+). Ki67 proliferation index is 20-30%

Infiltrating duct carcinoma, NOS of overlapping lesion of breast **Right**.

The invasive carcinoma is **positive** for estrogen receptor (99%, strong intensity), **negative** for progesterone receptor (0%), and *equivocal* for HER2 overexpression (2+). Ki67 proliferation index is 20-30%

+ Diagnosis Code Detail	
Code	Description
C50812	Primary Malignant neoplasm of overlapping sites of left female breast
Z170	Estrogen receptor positive status [ER+]
Z1721	Progesterone receptor positive status
C50811	Malignant neoplasm of overlapping sites of right female breast
Z1722	Progesterone receptor negative status

Conclusion





Special Thanks

Jessica Gallegos

Marjorie Jones-Igwe

Joanne Gutierrez

References

- <https://www.gentlecure.com/how-skin-cancer-appears-on-breasts/>
- <https://www.cancer.org/cancer/diagnosis-staging/tests/biopsy-and-cytology-tests/understanding-your-pathology-report/breast-pathology/breast-cancer-pathology.html>
- <https://www.researchgate.net/figure/Skin-banking-during-stage-1-of-NSM-with-DIEP-flap-reconstruction-During-stage-2>
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