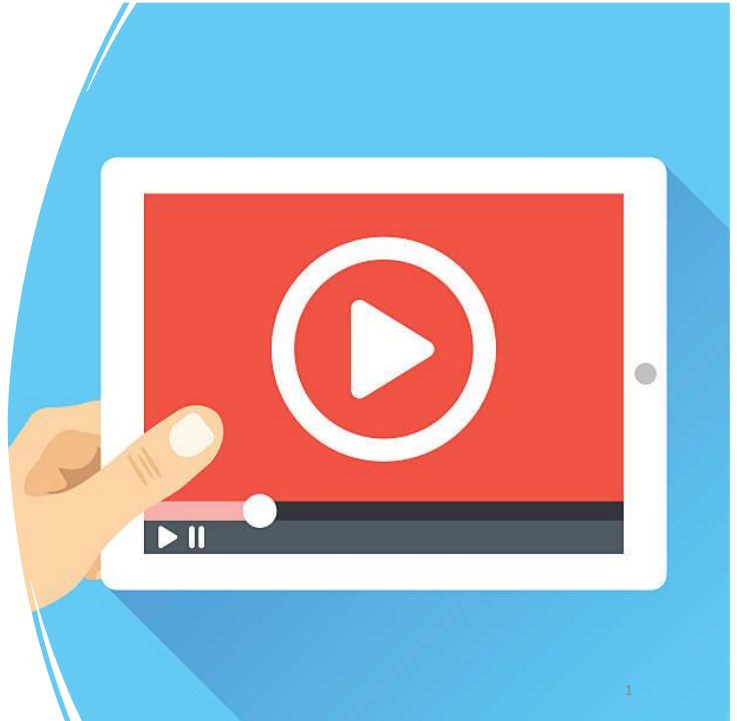


# Breast Cancer

## Anatomy

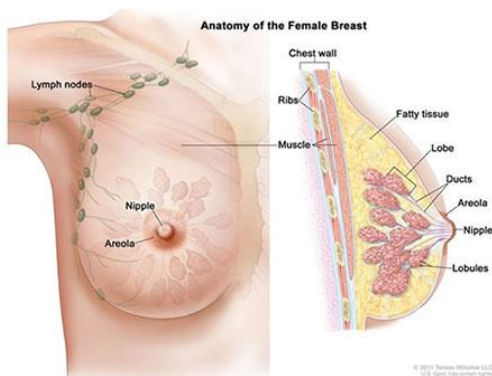
### EOD

Presented by Melissa Riddle, ODS-C  
ICR VIDEO TRAINING SERIES | Iowa Cancer Registry  
March 2025



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## Breast Anatomy



<https://training.seer.cancer.gov/images/breast/female-breast-anatomy.jpg>

### Lobes – 15-20 sections

- Lobules end in tiny bulbs contain milk
- Lobular carcinoma
- Fat covers lobes

### Ducts

- Link lobes, lobules, and bulbs
- Ductal carcinoma

Supported and attached to the chest wall on either side of sternum by ligaments

Rest on pectoralis major

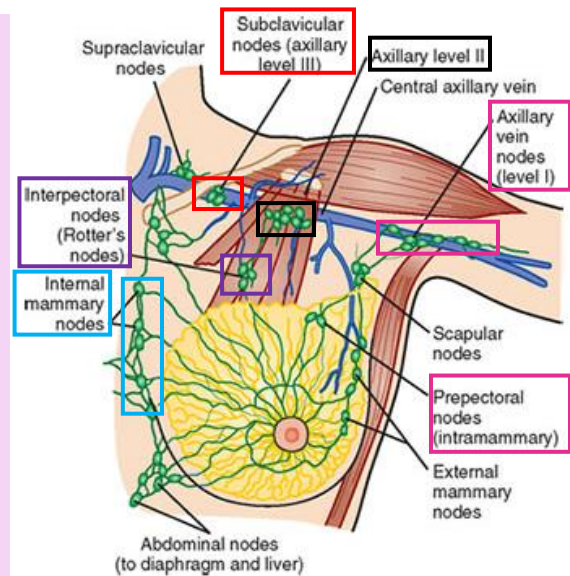
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# Regional Lymph Nodes of Breast

Draining pathway:

1. Axillary LN
2. Interpectoral LN
3. Internal Mammary



<https://training.seer.cancer.gov/images/breast/breast-diagram.jpg>

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## Regional Lymph Nodes

### Axillary LNs, **Level I**

- Low axillary
- Intramammary (within breast tissue)

### Axillary LNs **Level II**

- Mid Axillary, interpectoral, Rotter's node

### Axillary LNs **Level III** {not typically removed}

- High axillary, apical, infraclavicular

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# Breast Coding Guidelines

- SEER\*Appendix C: Coding Guidelines
  - Site specific coding notes and instructions

<https://seer.cancer.gov/manuals/2024/appendixc.html>

## SEER Program Coding and Staging Manual 2024

- SEER Program Coding and Staging Manual 2024 (PDF, 1.8 MB) (released September 2023)
- Appendix A - County Codes (PDF, 508 KB)
- Appendix B - Country and State Codes (PDF, 425 KB)
- Appendix C - Site Specific Coding Modules
- Appendix D - Race and Nationality Descriptions (PDF, 227 KB)
- Appendix E - Reportable and Non-reportable Examples: PDF (PDF, 196 KB) or Excel (XLSX, 25 KB)
- Summary of Changes (September 2023) (PDF, 314 KB) - provides the list of changes included in this release.

## Breast

[Coding Guidelines: Breast](#) (PDF, 174 KB)

[Solid Tumor Rules: Breast](#) (PDF, 7.9 MB)

## Surgery Codes

- Breast - (C500-C509) (PDF, 230 KB)

## Site-Specific Codes for Neoadjuvant Therapy Treatment Effect

- Breast (PDF, 200 KB)
- Thymus, Heart and Mediastinum, Retroperitoneum, Soft Tissue Abdomen and Thoracic, Soft Tissue H Other, Soft Tissue Trunk and Extremities, GIST (PDF, 203 KB) - Use these codes for sarcomas of the Bre

## EOD Schemas

- Breast

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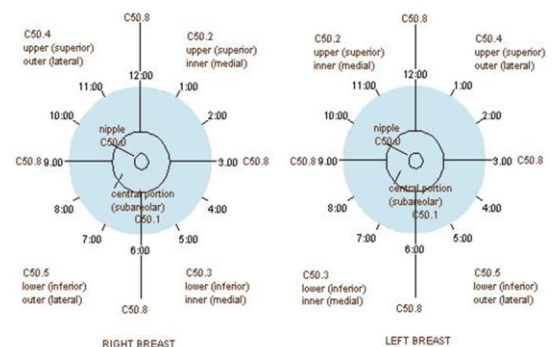
# Breast Coding Primary Site

## SEER Appendix C: Coding Guidelines

[https://seer.cancer.gov/manuals/2024/AppendixC/Coding\\_Guidelines\\_Breast\\_2024.pdf](https://seer.cancer.gov/manuals/2024/AppendixC/Coding_Guidelines_Breast_2024.pdf)

- Code **subsite with invasive tumor** when one site is invasive and other is in situ
- Multifocal tumors all within 1 quadrant code that **quadrant**
- Code primary to **C508** when:
  - Single tumor in 2+ subsite and origin unknown
  - Single tumor at 12, 3, 6, or 9 o'clock position
- Code primary to **C509** when:
  - Multiple tumors (2+) at least 2 quadrants
  - Multiple tumors (2+) located together at 12, 3, 6, or 9 o'clock position
- C502-C505** preferred over C501
- C500 & C501** preferred over C508

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



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## Coding Subsites

### Priority order when conflicting information

1. Operative report
2. Path report
3. Mammogram (ultrasound)
4. Physical Exam

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## Coding Laterality

- Laterality must be coded for all subsites
- Breast primary with pos nodes and no breast mass found:
  - Code laterality to the side with pos nodes

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# Extent of Disease v3.1

Breast

[https://staging.seer.cancer.gov/eod\\_public/list/3.1/](https://staging.seer.cancer.gov/eod_public/list/3.1/)

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## EOD Primary Tumor

### Notes:

1. Changes such as dimpling of skin, tethering and nipple retraction are caused by tension of Cooper's ligament(s), not by actual skin involvement. They do not alter the classification.
2. Adherence, attachment, fixation, induration, and thickening are clinical evidence of extension to skin or subcutaneous tissue; assign **code 200**.
3. "Fixation, NOS" is involvement of pectoralis muscle; assign **Code 200**.
4. For clinical description of inflammation, erythema, edema, peau d'orange, or other terms describing skin changes **without stated dx of inflammatory carcinoma**, assign **code 400**.

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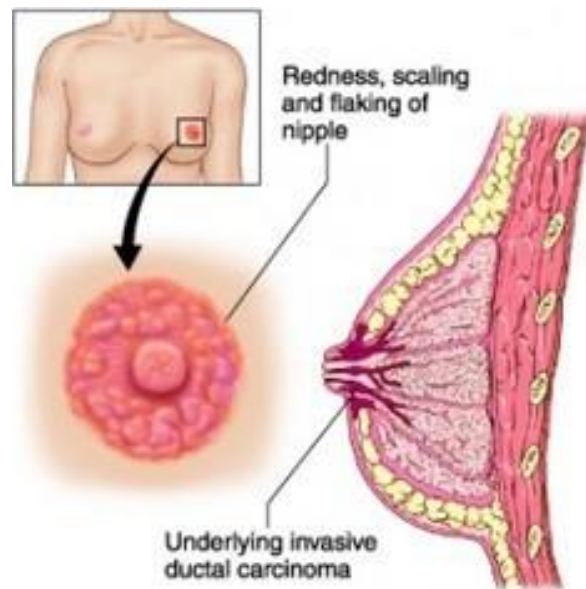
## EOD Primary Tumor: In-Situ (Non-invasive)

Code	Description
<b>000</b>	In situ; noninfiltrating; intraepithelial Intraductal without infiltration Lobular neoplasia, gr 3 (LIN3)
<b>050</b>	Paget disease of nipple WITHOUT underlying tumor
<b>070</b>	Paget disease of nipple WITH underlying DCIS tumor
<b>SS18</b>	In Situ

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### Paget's Disease of Nipple



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## EOD Primary Tumor: Invasive

Code	Description
100	Any size tumor Confined to breast tissue and fat including nipple and/or areola Localized, NOS <u>EXCLUDES</u> : skin invasion of breast, nipple and areola (see code 200)
200	Any size tumor Attach/fixation to pectoralis muscle(s); deep fixation; invasion of pectoralis fascia/muscle or subcutaneous extension
300	Invasion of (Fixation to) Chest wall; Intercostal or serratus anterior muscle; Ipsilateral rib(s), contiguous involvement

Notes  
2 & 3

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## EOD Primary Tumor: Invasive

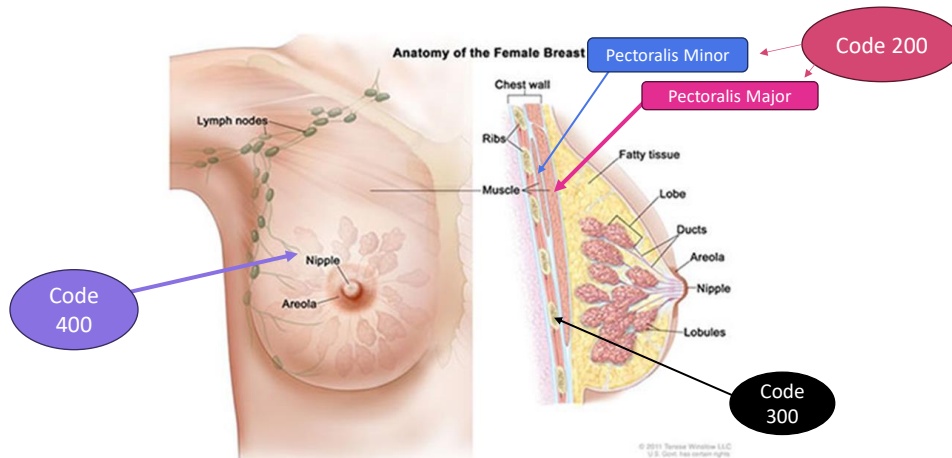
Code	Description
400	Extensive skin involvement <b>WITHOUT</b> stated dx of inflammatory carcinoma <b>WITH or WITHOUT</b> dermal lymphatic invasion See list of terms*
450	<i>Diagnosis of Inflammatory Carcinoma</i> <b>WITH</b> clinical description of inflammation, erythema, edema, peau d'orange, etc. Involve <u>less than 1/3</u> (33%) skin of breast or <u>percent NOT</u> stated <b>WITH or WITHOUT</b> dermal lymphatic inv (See list of terms)
500	300 + 400 <u>or</u> 450

Note 4

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## EOD Primary Tumor



<https://training.seer.cancer.gov/images/breast/female-breast-anatomy.jpg>

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## EOD Primary Tumor: Invasive

Code	Description
600	Diagnosis of inflammatory carcinoma <b>WITH</b> clinical description of inflammation, erythema, edema, peau d'orange, etc. <b>Involving &gt; 1/3 (33%)</b> of skin of breast <b>WITH or WITHOUT</b> dermal lymphatic infiltration (see terms list*)
700	Stated as "inflammatory carcinoma" with no other information
800	No evidence primary tumor; LN positive and NO primary tumor
999	Unknown; extension not stated; not documented

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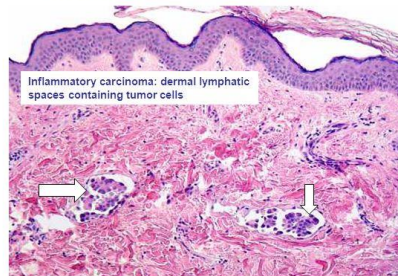
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## Inflammatory Breast Carcinoma

**Inflammatory Carcinoma**  
invasive carcinoma involving superficial dermal lymphatic. Erythema & induration

**Peau d'orange** of involved skin caused by lymphatic involvement and obstruction.



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## EOD Regional Nodes

### Notes

1: Code only regional nodes and nodes, NOS in this field. Distant nodes coded in EOD Mets.

2: Codes for **CLINICAL** assessment only or **PATH** assessment only.

- **Clinical codes (000, 150, 350, 400)**
  - clinical workup only, no surgical resection of breast.
  - Exception rule for neoadjuvant therapy
- **Path codes (030, 050, 070, 200, 250, 300)**
  - Primary tumor surgically resected **WITH**
  - Any microscopic exam of Reg LN
    - FNA, core bx, SLN bx or LN excision during clinical workup
    - LN dissection
- Remaining codes can be used based on clin or path info

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## EOD Regional Nodes

### Notes

3. Path report indicates nodes positive but size NOT state assume greater than 0.2mm
4. Regional nodes removed and level or name not mentioned assume level 1-3
5. ITCs are no greater than 0.2mm usually detect by IHC. LN with **ITCs ONLY** are **NOT counted as positive nodes**
  - Codes 030, 050, 070 are pathologically negative but are positive for ITCs or RT-PCR
    - **Code 030** – neg node path + pos ITCs or pos ITC **and** RT-PCR
    - **Code 050** – neg node path + pos RT-PCR, neg ITC
    - **Code 070** – neg node path + *unknown ITC or RT-PCR*

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## EOD Regional Nodes

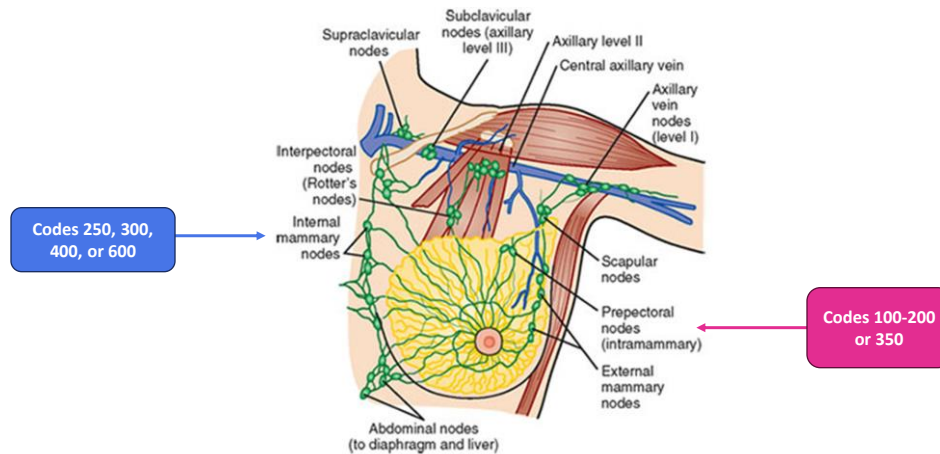
### Notes

6. Internal mammary nodes (codes 250, 300, 400, 600) **NOT** routinely removed unless there was uptake during SLN bx or apparent on imaging
  - Make sure documentation clearly states **INTERNAL** mammary nodes
  - Don't confuse with **INTRAMammary** nodes
7. If internal mammary, infraclavicular or supraclavicular LN are involved do **NOT** use **codes 100-200 and 350**

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# EOD Regional Lymph Nodes



<https://training.seer.cancer.gov/images/breast/breast-diagram.jpg>

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## EOD Regional Nodes

### Notes

8. Regional Nodes include:
  - Axillary NOS (ipsilateral)
  - Level 1 (low axillary) (superficial)
    - Anterior (pectoral)
    - Lateral (brachial)
    - Posterior (subscapular)
  - Level 2 (mid axilla) (central)
    - Interpectoral (Rotter's)
  - Level 3 (high) (deep)
    - Apical (subclavian)
    - Axillary vein
  - Fix/matted axilla (levels 1 & 2) (ipsilateral)
  - Infraclavicular (subclav) (ipsilateral)
  - Intramammary (ipsilateral)
  - Supraclavicular (transverse cervical) (ipsilateral)
9. Code 800 when regional nodes involved, but not indicated which ones

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## EOD- Regional Nodes

Code	Description
<b>000:C</b>	No <b>clinical</b> regional lymph node involvement {clinically neg}
<b>030:P</b>	PATHOLOGICAL assessment only ITC's only (malig cell clusters no larger than 0.2 mm in reg LNs.
<b>050:P</b>	PATHOLOGICAL assessment only Positive molecular findings by RT-PCR, no ITC's detected
<b>070:P</b>	No reg LN involvement pathologically ( <b>lymph nodes removed and path neg</b> ) <b>WITHOUT</b> ITCs or ITC testing unknown

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## EOD – Regional Nodes

Code	Description
<b>100:P</b>	Ipsilateral Level I and Level II axillary nodes, micromets
<b>150:C</b>	<b>CLINICAL</b> assessment only (needle core/FNA) pos – <b>Levels I &amp; II</b>
<b>200:P</b>	<b>PATH</b> assessment only Pos <u>axillary nodes ipsilat</u>
<b>250:P</b>	<b>PATHOLOGICAL</b> assessment only: <b>Internal mammary pos</b> on <u>SLN bx</u> ; <b>w/o ax nodes pos</b>
<b>300:P</b>	<b>PATHOLOGICAL</b> assessment only: <b>Internal mammary pos</b> on <u>SLN bx</u> <b>WITH ax nodes pos</b>
<b>350:C</b>	<b>CLINICAL</b> assessment only; fixed/matted – <b>Levels I &amp; II</b>
<b>400:C</b>	<b>CLINICAL</b> assessment only: Internal mammary pos w/o ax nodes pos – <b>Levels I &amp; II</b>

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# EOD – Regional Nodes

Code	Description
500	Infraclavicular nodes (subclav) ( <b>level III</b> ), ipsilat <b>WITH</b> or <b>WITHOUT</b> axillary nodes level I and II nodes <b>WITHOUT</b> internal mammary node
600	Internal mammary nodes, ipsilat, clinically apparent (imaging or exam) <b>WITH</b> axillary level I, II or III nodes
700	Supraclavicular nodes, ipsilateral { <b>SS18 distant</b> }
800	Regional nodes NOS Lymph nodes NOS
999	Unknown, not stated or documented; cannot be assessed.

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# EOD METS

**Note 1:** For bone marrow micromets, circulating tumor cells CTCs or disseminated tumor cells and clusters (DTCs) are less than or equal to **0.2 mm** and assigned to **code 05**.

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## EOD - Mets

Code	Description
00	<b>No</b> distant mets <b>OR UNKNOWN</b> if distant mets
05	No clinical or radiographic evid distant mets Tumor cells found in circulating blood, bone marrow, or other distant LN tissue less than or equal to 0.2 mm [see <b>note 1</b> ]
10	Distant lymph node(s) *list in manual*
70	Skin over: axilla, contralat breast, sternum or upper abdomen Further contiguous extension Distant mets *list in manual* Carcinomatosis Distant mets NOS

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## Summary Stage 18 {SS18}

- SS18 Manual by sites or complete manual pdf  
<https://seer.cancer.gov/tools/ssm/>
- SEER\*RSA
  - SS18 in each schema
- COC programs directly code SS18
- Non-COC it is derived

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# Tumor Size

Breast

[https://seer.cancer.gov/manuals/2024/SPCSM\\_2024\\_MainDoc.pdf](https://seer.cancer.gov/manuals/2024/SPCSM_2024_MainDoc.pdf)

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## Tumor Size Summary

- SEER no longer requires TS Clinical and TS Path
- 2024+ TS Summary is required
  - All measurements should be in mm
  - Record the size in specified order:
    - Surgical resection specimen (no neoadjuvant therapy)
      - Discrepancy in size within path report code from synoptic report
      - Only a text report available: final diagnosis, micro, or gross exam
    - Neoadjuvant therapy – code largest size prior to start of treatment; unknown = 999
    - No surgery – code from imaging, PE, or other dx procedure

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## Tumor Size Summary

- **Priority for Imaging:**
  - Only use when there is **NO tumor size on path or op report**
  - Record the **largest size** when there are TS discrepancies among imaging reports
- Code the **size of the invasive component** if given
  - Both in situ and invasive are present and invasive is measured – record the size even if it is smaller
  - If size of invasive not provided, record size of entire tumor from surgical report, path, imaging, or clinical exam

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## Rounding Rules for BREAST

- Round tumor sizes greater than 1mm and up to 2.4mm to **2mm (002)**
  - This exception is so that the size recorded in TS will derive current AJCC TNM Primary Tumor (T) category for breast
  - Do **NOT** apply to other sites

**Example:** Breast cancer described as 1.3mm in size – **code 002**

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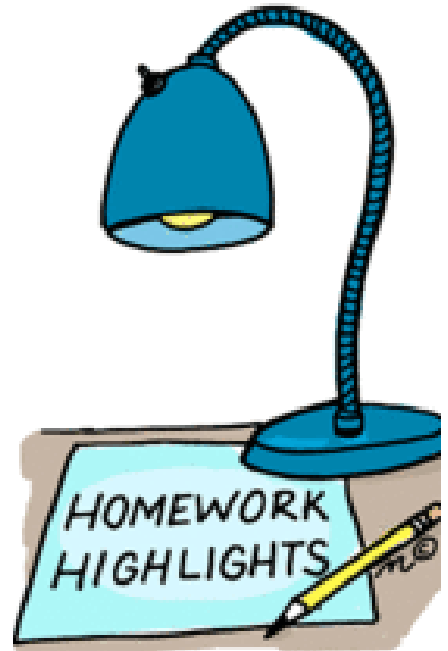


# SEER\*Educate

## Training | Coding CEs

DX 2021-2024 EOD, Summ Stage, Grade, SSDI  
Mashup

- Breast cases 1-10



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## Questions?

### Contact Info

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Training & Education

Iowa Cancer Registry

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