2018 Updates for Neoplasms of the Breast

1

2018-2019 FCDS WEBCAST SERIES
11/15/2018
STEVEN PEACE, CTR

1 in 8 women // 1 in 1000 men

CDC & Florida DOH Attribution

2

"Funding for this conference was made possible (in part) by the Centers for Disease Control and Prevention. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services, nor does the mention of trade names, commercial practices, or organizations imply endorsement by the US Government."

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FLccSC LMS – CEU Quiz –FCDS IDEA

FLccSC
Fundamental Learning Collaborative for the Cancer Surveillance Community

- 2017 - Florida Changed How FCDS Awards CEUs for FCDS Webcasts
- Attendees must take and pass a 3-5 question CEU Quiz to get CEUs
- CEU Awards are Restricted to Attendees with a FLccSC LMS Account
- The CEU Quiz will be posted to FLccSC 1-2 hours after the webcast ends

- Only registered FLccSC Users will be given access to the CEU Quiz
- Florida attendees must have a Florida FLccSC Account to take the Quiz
- South Carolina attendees must have a South Carolina FLccSC Account
- New FLccSC States will follow similar instructions for the CEU Quiz

- Attendees can attend any of the live webcasts without receiving CEUs
- Recorded Sessions are also available for non-FLccSC Users – No CEUs

2018 - A Year for Major Changes to Cancer Registry Data Standards

4

- New ICD-O-3 Histology Code & Behavior Codes
- New Histology Coding Rules and Tools
- New Reportable Cancers
- 2018 Solid Tumor MP/H Rules
- 2018 Hematopoietic MP/H Rules
- Cancer Staging Updates
  - SS2018
  - Grade Coding
  - Site-Specific Data Items
  - AJCC TNM 8th ed.
  - 2018 SEER EOD
- EDITS v18
- STORE Manual
- 2018 FCDS DAM

Harmonization & Interconnectivity with Lots of Moving Parts

2018 - A Year for Major Changes to Cancer Registry Data Standards

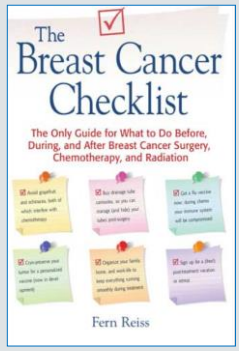
5

ICD-O-3 Third Edition - 2007 Updates for Selected Solid Tumors	https://seer.cancer.gov/icd-o-3/
ICD-O-3 Third Edition - 2010 Updates for Hematopoietic and Lymphoid Neoplasms	https://seer.cancer.gov/icd-o-3/
2018 Guidelines for ICD-O-3 Histology Code and Behavior Update	https://seer.cancer.gov/icd-o-3/
2018 Solid Tumor MP/H Coding Rules	https://seer.cancer.gov/tools/solidtumor/
2018 Hematopoietic Database & MPH Rules – web-based version only	http://seer.cancer.gov/seertools/hemelymph/
2018 SEER*Rx – current web version	http://seer.cancer.gov/seertools/seerrx/
2018 Grade Coding Manual, Instructions and Tables	https://apps.naaccr.org/ssdi/list/
2018 Summary Stage Manual	http://seer.cancer.gov/tools/ssm/
AJCC Cancer Staging Manual, 8th ed.	http://www.springer.com/medicine
AJCC Cancer Staging Manual, 8th ed. – errata & breast chapter replacement	https://cancerstaging.org/references-tools/deskreferences/Pages/8EUpdates.aspx#Histology/Topography
AJCC Histology and Topography Code Supplement	https://cancerstaging.org/references-tools/deskreferences/Pages/8EUpdates.aspx#Histology/Topography
2018 Site-Specific Data Items Manual	https://apps.naaccr.org/ssdi/list/
2018 Site/Type Validation Table from SEER	https://seer.cancer.gov/icd-o-3/
CoC STORE Manual - STandards for Oncology Registry Entry	https://www.facs.org/quality-programs/cancer/ncdb/registrymanuals/cocmanuals
SEER*SINQ - Inquiry System	https://seer.cancer.gov/seerinquiry/index.php
Coc Canswer - Inquiry System	http://cancerbulletin.facs.org/forums/
Your State EDITS Metafile – current version	https://fcds.med.miami.edu/inc/downloads.shtml

Presentation Outline

6

- Introduction to Neoplasms of the Breast
- Anatomy of the Breast
- 2018 ICD-O-3 – Breast
- 2018 MP/H Rules – Breast
- Bio-Molecular & Multi-Gene Testing
- 2018 Anatomic Staging – Breast
  - SS2018 – Breast
  - AJCC TNM – Breast
- 2018 SSDI Highlights – Breast
- Text Documentation
- Practice Cases - Pending
- Questions



Presentation Outline

7

- What we will <u>not</u> be discussing in detail today
  - Risk Factors
  - Signs & Symptoms
  - Screening Guidelines
  - Full Details of Breast MP/H Rules
  - Every Histologic Type of Breast Cancer
  - AJCC TNM Detailed Instructions and Rules
  - SS2018 Detailed Instructions and Rules
  - Every Single SSDI for Breast – too numerous
  - NCCN or Other Treatment Guidelines

Introduction

8

Figure 3. Leading Sites of New Cancer Cases and Deaths – 2018 Estimates

Estimated New Cases

Male			Female		
Prostate	164,690	19%	Breast	266,120	30%
Lung & bronchus	121,680	14%	Lung & bronchus	112,350	13%
Colon & rectum	75,610	9%	Colon & rectum	64,640	7%
Urinary bladder	62,380	7%	Uterine corpus	63,230	7%
Melanoma of the skin	55,150	6%	Thyroid	40,900	5%
Kidney & renal pelvis	42,680	5%	Melanoma of the skin	36,120	4%
Non-Hodgkin lymphoma	41,730	5%	Non-Hodgkin lymphoma	32,950	4%
Oral cavity & pharynx	37,160	4%	Pancreas	26,240	3%
Leukemia	35,030	4%	Leukemia	25,270	3%
Liver & intrahepatic bile duct	30,610	4%	Kidney & renal pelvis	22,660	3%
All sites	**856,370**	**100%**	**All sites**	**878,980**	**100%**

Estimated Deaths

Male			Female		
Lung & bronchus	83,550	26%	Lung & bronchus	70,500	25%
Prostate	29,430	9%	Breast	40,920	14%
Colon & rectum	27,390	8%	Colon & rectum	23,240	8%
Pancreas	23,020	7%	Pancreas	21,310	7%
Liver & intrahepatic bile duct	20,540	6%	Ovary	14,070	5%
Leukemia	14,270	4%	Uterine corpus	11,350	4%
Esophagus	12,850	4%	Leukemia	10,100	4%
Urinary bladder	12,520	4%	Liver & intrahepatic bile duct	9,660	3%
Non-Hodgkin lymphoma	11,510	4%	Non-Hodgkin lymphoma	8,400	3%
Kidney & renal pelvis	10,010	3%	Brain & other nervous system	7,340	3%
All sites	**323,630**	**100%**	**All sites**	**286,010**	**100%**

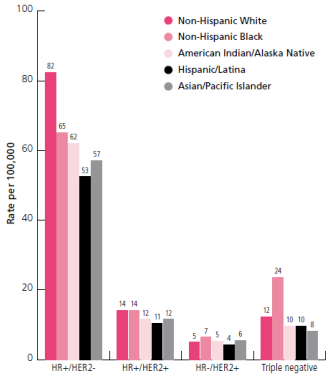
Estimates are rounded to the nearest 10, and cases exclude basal cell and squamous cell skin cancers and in situ carcinoma except urinary bladder. Ranking is based on modeled projections and may differ from the most recent observed data.

2018 ACS Cancer Facts & Figures

Introduction

9

Figure 3. Female Breast Cancer Incidence Rates by Subtype and Race/Ethnicity, 2010-2014, US



HR = hormone receptor, HER2 = human epidermal growth factor receptor 2.
Note: Rates are age adjusted to the 2000 US standard population.
Source: NAACCR, 2017.

U.S. 2018 New Cases = 330,080

- 266,120 invasive cancers
- 63,960 in-situ cancers
  - 85% DCIS
  - 15% LCIS

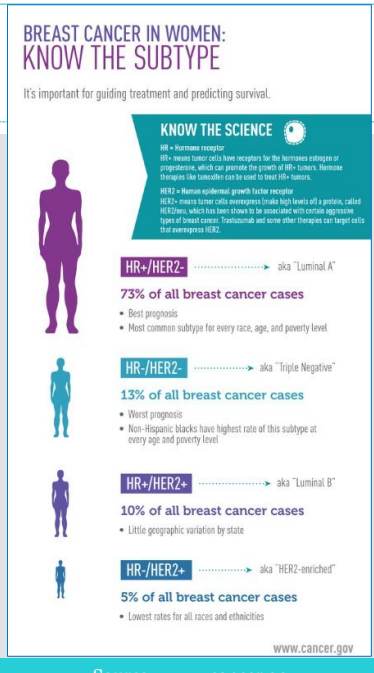
U.S. 2018 Deaths = 44,400

Table 1. Estimated New Female Breast Cancer Cases and Deaths by Age, US, 2017

	In Situ Cases		Invasive Cases		Deaths	
Age	Number	%	Number	%	Number	%
<40	1,610	3%	11,160	4%	990	2%
40-49	12,440	20%	36,920	15%	3,480	9%
50-59	17,680	28%	58,620	23%	7,590	19%
60-69	17,550	28%	68,070	27%	9,420	23%
70-79	10,370	16%	47,860	19%	8,220	20%
80+	3,760	6%	30,080	12%	10,910	27%
All ages	**63,410**		**252,710**		**40,610**	

Estimates are rounded to the nearest 10. Percentages may not sum to 100 due to rounding.

2017-2018 ACS Breast Cancer Facts & Figures



Introduction

10

- **Most breast cancers are ductal type!**
- **Subtype & Combinations Over-Use**
- **Two main breast cancer histologies:**
  - Ductal Carcinoma starts in the ducts that move milk from the lobules to the nipple.
  - Lobular Carcinoma starts in parts of the breast called lobules which produce milk.
- **Hormone ER/PR & HER2 = Key**
- **Most cases now code histology:**
  - Lobular Carcinoma In Situ (LCIS)
  - Ductal Carcinoma In Situ (DCIS)
  - Invasive Lobular Carcinoma
  - Invasive Ductal Carcinoma
  - Mixed Ductal and Lobular Carcinoma
  - Mixed In situ and Invasive Cancers
- **LCIS is Required to Report to FCDS**

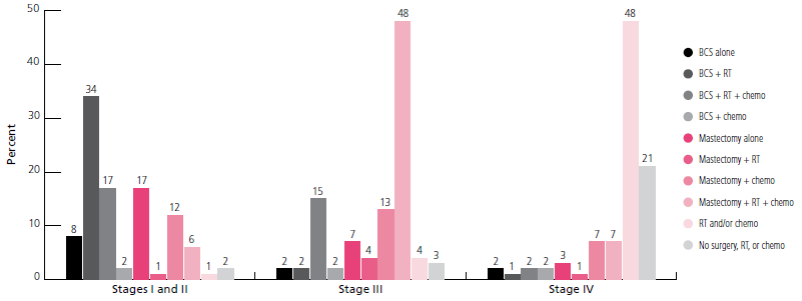
Source: www.cancer.gov

http://www.ncbi.nlm.nih.gov/pubmedhealth

Introduction

11

Figure 11. Female Breast Cancer Treatment Patterns (%), by Stage, 2013, US

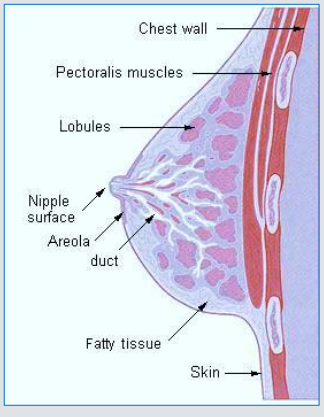


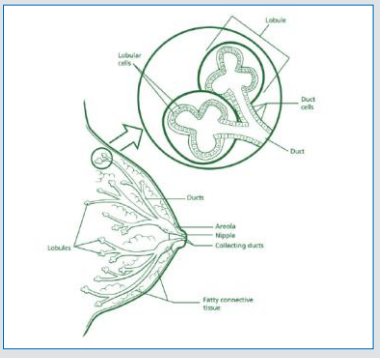
BCS = breast-conserving surgery; RT = radiation therapy; chemo = chemotherapy and includes targeted therapy and immunotherapy drugs.
Source: National Cancer Data Base, 2013.

American Cancer Society, Inc., Surveillance Research, 2017

Anatomy of the Breast

12



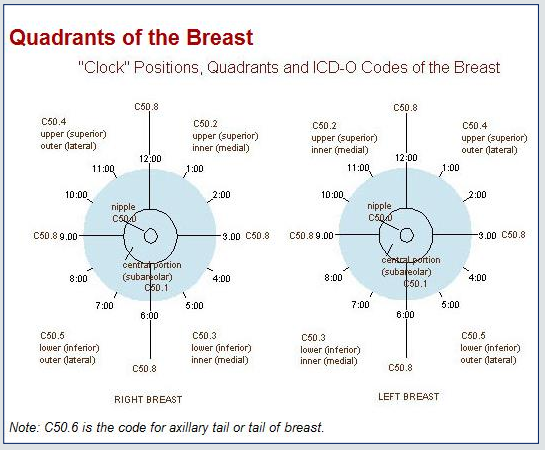


Source: SEER Training Modules

Source: http://cancer.org/breastcancer

Anatomy of the Breast

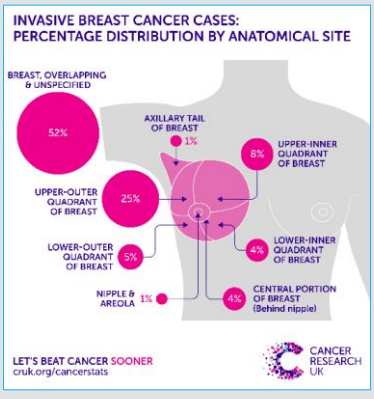
13

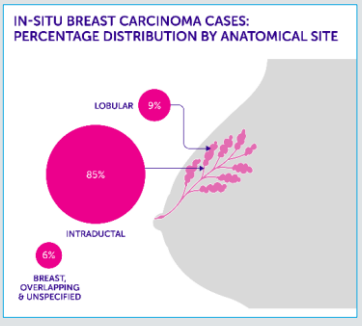


Source: SEER Training Modules

Anatomy of the Breast

14



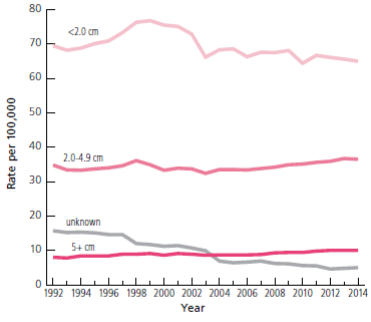


Source: http://www.cancerresearchuk.org/sites/inc_anatomicalsite_breast_0.png

Anatomy of the Breast

15

Figure 7. Trends in Female Breast Cancer Incidence Rates by Tumor Size, 1992-2014, US

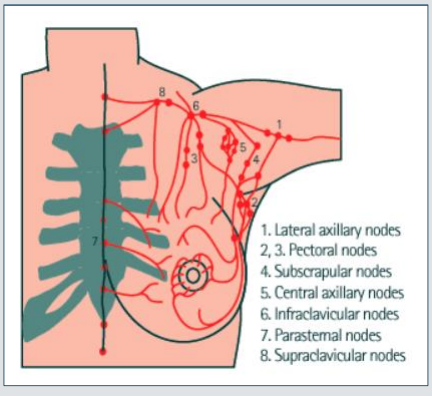


Note: Rates are age adjusted to the 2000 US standard population and adjusted for reporting delays.

Source: 13 SEER Registries, National Cancer Institute, 2017.
American Cancer Society, Inc., Surveillance Research, 2017

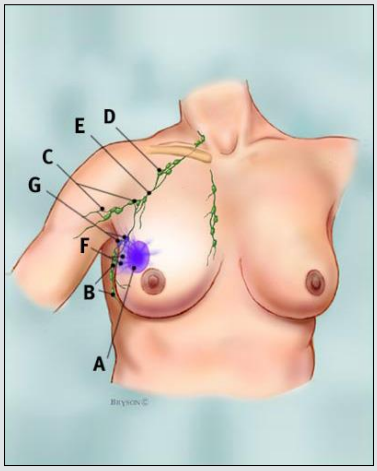
Lymphatics of the Breast

16



Lymphatics of the Breast

17



A blue dye in lumpectomy site

B axillary lymph nodes: levels I

C axillary lymph nodes: levels II

D axillary lymph nodes: levels III

E large lymphatic channels

F small lymphatic channels

G sentinel lymph nodes taking up dye

http://www.breastcancer.org

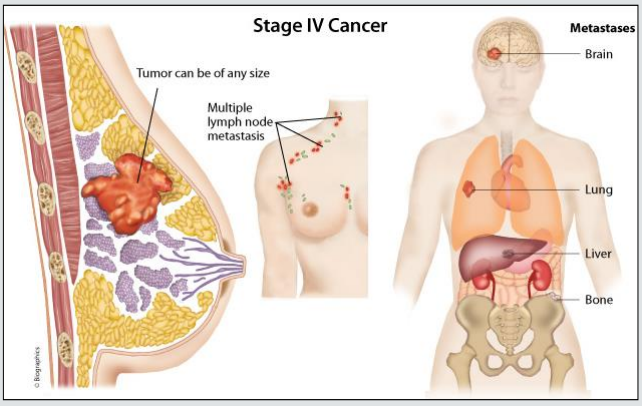
Lymphatics of the Breast

18

- Isolated Tumor Cells (ITCs) - very small deposits of tumor cells, no larger than 0.2 mm or no more than 200 cells, found in sentinel lymph node(s).
  - Presence of ITCs is NOT considered positive lymph node(s)
  - Usually identified using immunohistochemistry test on SLN
    - Cytokeratin Antigen Test or CK Test
    - Epithelial Membrane Antigen or EMA Test
- Micrometastasis - tumor deposits greater than 0.2mm but not greater than 2.0mm in largest dimension.
- Macrometastasis - resected lymph nodes greater than 2.0mm in largest dimension OR any clinically positive lymph nodes
- Macrometastasis – any nodal metastases detected by FNA or core biopsy regardless of the size of the tumor focus

Distant Metastasis

19

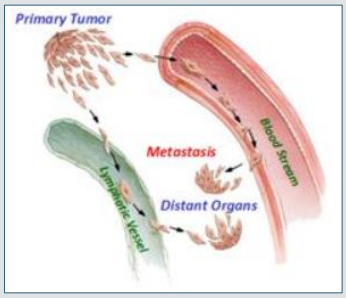


http://mediconweb.com/cancer/recurrent-and-metastatic-breast-cancer/

Distant Metastasis

20

- Chest Wall
  - Ribs
  - Intercostal muscle
  - Serratus anterior muscle
  - Pectoral muscle is NOT chest wall invasion
- Lymph Nodes
  - Contralateral axillary lymph nodes
  - Contralateral internal mammary or
  - Supraclavicular lymph nodes
  - Cervical lymph nodes
- Distant Metastasis
  - Bone
  - Lung
  - Brain
  - Liver
- Disseminated tumor cells (DTCs) –Bone Marrow
- Circulating tumor cells (CTCs) – Blood Stream

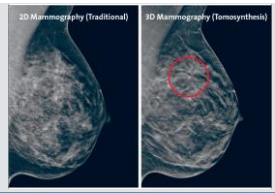


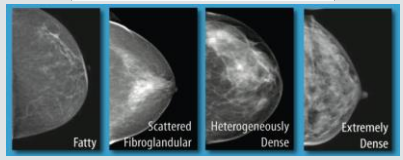
Source: http://www.scripps.edu/felding/images/metastasis.jpg

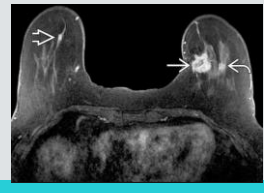
Diagnostic Workup

21

- Mammography
- Other Breast Imaging
- Confirmation of Disease
  - Core Biopsy or FNA of primary tumor
  - Excisional Biopsy of primary tumor
  - Lumpectomy or Mastectomy
- Lymph Node Assessment
  - Core Biopsy or FNA of Lymph Node
  - Sentinel Lymph Node Biopsy
  - Sentinel Lymph Node Removal
  - Axillary Node Dissection
- ER/PR/HER2
- 21-Gene Recurrence Score Assay
- Metastatic Workup as Indicated







Breast Imaging - Screening vs. Diagnostic

22

- Screening – looking for cancer before a person has any symptoms to find cancer at early/treatable stage
- Risks of Screening – False Negative, False Positive, Radiation Exposure, Anxiety, Pain, Discomfort, Screening may not alter patient outcomes (survival and/or mortality)
- Diagnostic – patient already had one or more screening procedure(s) or has obvious clinical evidence of cancer (palpable tumor mass or palpable nodes) and is now being seen to confirm the diagnosis using image-guided FNA, stereotactic core biopsy, tissue biopsy, excisional biopsy, etc.

Understanding Results of Breast Imaging

23

- **Breast Imaging Reporting and Database System (BI-RADS)**
- BI-RADS® serves as a classification system for mammography, ultrasound, and magnetic resonance imaging (MRI) of the breast.
- BI-RADS® serves as a comprehensive guide providing standardized breast imaging terminology, report organization and assessment structure by category
- BI-RADS® is a quality assurance guide designed to standardize breast imaging reporting and facilitate outcome monitoring.

Source: American College of Radiology (ACR)

Understanding Results of Breast Imaging

24

TABLE 4: BI-RAD classification of mammographic lesions

BI-RAD class	Description	Probability of malignancy (%)	Follow-up
0	Needs additional evaluation		Diagnostic mammogram, ultrasonographic image
1	Normal mammogram	0	Yearly screening
2	Benign lesion	0	Yearly screening
3	Probably benign lesion	< 2	Short interval follow-up
4[a]	Suspicious for malignancy	20	Biopsy
5	Highly suspicious for malignancy	90	Biopsy
6	Biopsy-proven malignancy	100	Treatment

BI-RAD = Breast Imaging Reporting Data System

[a] The ACR recommends that each site be divided into three subcategories: 4A, low suspicion; 4B, intermediate suspicion; and 4C, moderate concern but not classic for malignancy.

Source: American College of Radiology (ACR)

Latest News Breast Cancer Research

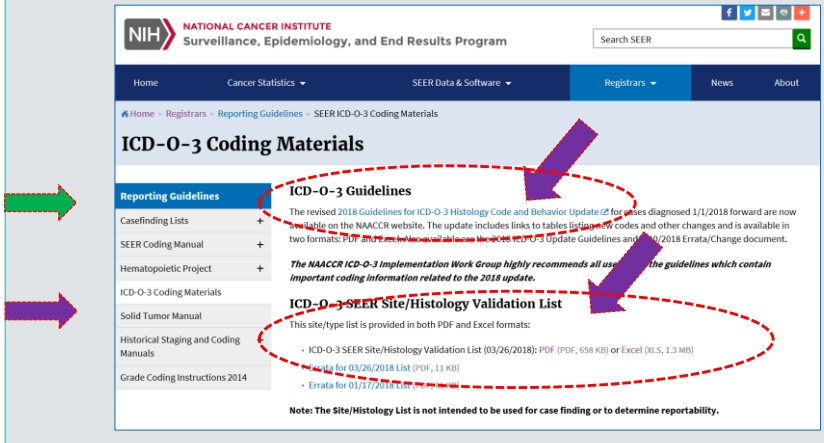
25

- New Lab Tests – Tests for Circulating Tumor Cells
- New Imaging – Scintimammography – molecular breast imaging using radioactive tracer
- Oncoplastic Surgery – breast conserving and reconstruction (single/bilateral) of breast
- Triple-Negative Breast Cancer
- Targeted Therapies with PARP Inhibitors

ICD-O-3 Updates - 2018

26

https://seer.cancer.gov/icd-o-3/



ICD-O-3 Coding Resources

27

- ICD-O-3 Manual – use your current manual
- ICD-O-3 Errata & 2011 Updates
  - http://www.who.int/classifications/icd/updates/icd03updates/en/
- ICD-O-3 Updates for 2018
  - https://seer.cancer.gov/icd-o-3/
- 2018 Solid Tumor MP/H Rules
  - https://seer.cancer.gov/tools/solidtumor
- Hematopoietic Database On Line
  - https://seer.cancer.gov/seertools/hemelymph/
- 2018 Site-Specific Grade Instructions
  - https://www.naaccr.org/SSDI/Grade-Manual.pdf
- 2018 SEER Site/Type Validation List
  - https://seer.cancer.gov/icd-o-3/

ICD-O-3 Updates - Breast

28

2018 ICD-O-3 New Codes, Behaviors, and Terms-Updated 4/20/18

Histology	Be	label
8041	3	Neuroendocrine carcinoma, poorly differentiated (C50._)
8246	3	Neuroendocrine tumor, well differentiated (C50._)
8500	2	Mammary carcinoma, in situ (C50._)
8500	2	Non-invasive mammary carcinoma (C50._)
8500	3	Invasive carcinoma of no special type (C50._)
8500	3	Invasive carcinoma, NST (C50._)
8500	3	Invasive mammary carcinoma (C50._)
8503	2	Intraductal papilloma with ductal carcinoma in situ (C50._)
8504	2	Encapsulated papillary carcinoma C50._)
8504	3	Encapsulated papillary carcinoma with invasion (C50._)
8507	3	Invasive micropapillary carcinoma (C50._)
8509	2	Solid papillary carcinoma in situ (C50._)
8509	3	Solid papillary carcinoma with invasion (C50._)
8519	2	Pleomorphic lobular carcinoma in situ (C50._)
8520	2	Intraductal papilloma with lobular carcinoma in situ (C50._)
8520	3	Invasive lobular carcinoma, alveolar type (C50._)
8520	3	Invasive lobular carcinoma, solid type (C50._)
8520	3	Invasive lobular carcinoma, tubulolobular variant (C50._)
8520	3	Pleomorphic lobular carcinoma (C50._)
8520	3	Invasive lobular carcinoma (C50._)
8520	3	Tubulolobular carcinoma (C50._)

ICD-O-3 Site/Histology Validation

29

https://seer.cancer.gov/icd-o-3/

Still has old histology codes now invalid - CAUTION

Site recode	Site Description	Histolo	Histology Description	Histology/Behavior	Histology/Behavior Description
C500-C506,C508-C509	BREAST	849	SIGNET RING CELL CARCINOM	8490/3	Signet ring cell carcinoma
C500-C506,C508-C509	BREAST	850	DUCT CARCINOMA	8500/2	Intraductal carcinoma, noninfiltrating, NOS
C500-C506,C508-C509	BREAST	850	DUCT CARCINOMA	8500/3	Invasive carcinoma of no special type
C500-C506,C508-C509	BREAST	850	DUCT CARCINOMA	8501/2	Comedocarcinoma, non-infiltrating
C500-C506,C508-C509	BREAST	850	DUCT CARCINOMA	8501/3	Comedocarcinoma, NOS
C500-C506,C508-C509	BREAST	850	DUCT CARCINOMA	8502/3	Secretory carcinoma of breast
C500-C506,C508-C509	BREAST	850	DUCT CARCINOMA	8503/2	Noninfiltrating intraductal papillary adenocarcinom
C500-C506,C508-C509	BREAST	850	DUCT CARCINOMA	8503/3	Intraductal papillary adenocarcinoma with invasion
C500-C506,C508-C509	BREAST	850	DUCT CARCINOMA	8504/2	Noninfiltrating intracystic carcinoma
C500-C506,C508-C509	BREAST	850	DUCT CARCINOMA	8504/3	Intracystic carcinoma, NOS
C500-C506,C508-C509	BREAST	850	DUCT CARCINOMA	8507/2	Intraductal micropapillary carcinoma
C500-C506,C508-C509	BREAST	850	DUCT CARCINOMA	8507/3	Invasive micropapillary carcinoma
C500-C506,C508-C509	BREAST	850	DUCT CARCINOMA	8508/3	Cystic hypersecretory carcinoma
C500-C506,C508-C509	BREAST	850	DUCT CARCINOMA	8509/2	Solid papillary carcinoma in situ
C500-C506,C508-C509	BREAST	850	DUCT CARCINOMA	8509/3	Solid papillary carcinoma with invasion
C500-C506,C508-C509	BREAST	851	MEDULLARY CARCINOMA, NC	8510/3	Medullary carcinoma, NOS
C500-C506,C508-C509	BREAST	851	MEDULLARY CARCINOMA, NC	8512/3	Medullary carcinoma with lymphoid stroma
C500-C506,C508-C509	BREAST	851	MEDULLARY CARCINOMA, NC	8513/3	Atypical medullary carcinoma
C500-C506,C508-C509	BREAST	851	MEDULLARY CARCINOMA, NC	8514/3	Duct carcinoma, desmoplastic type
C500-C506,C508-C509	BREAST	851	MEDULLARY CARCINOMA,	8519/2	Pleomorphic lobular carcinoma in situ
C500-C506,C508-C509	BREAST	852	LOBULAR AND OTHER DUCTA	8520/2	Lobular carcinoma in situ
C500-C506,C508-C509	BREAST	852	LOBULAR AND OTHER DUCTA	8520/3	Lobular carcinoma, NOS
C500-C506,C508-C509	BREAST	852	LOBULAR AND OTHER DUCTA	8521/3	Infiltrating ductular carcinoma
C500-C506,C508-C509	BREAST	852	LOBULAR AND OTHER DUCTA	8522/2	Intraductal and lobular in situ carcinoma
C500-C506,C508-C509	BREAST	852	LOBULAR AND OTHER DUCTA	8522/3	Infiltrating duct and lobular carcinoma

ICD-O-3 Updates - Breast

30

Specific and NOS/NST Terms and Code	Synonyms	Subtypes/Variants
Apocrine carcinoma 8401 *Note:* This is a diagnosis that is **EXACTLY** apocrine **carcinoma**, **not** a carcinoma **NST** with apocrine **features**, **differentiation**, or **type.**		
Carcinoma NST 8500 **3 pages of synonyms**	Carcinoma of no special type (ductal/NST) Carcinoma/carcinoma NST with choriocarcinomatous features Carcinoma/carcinoma NST with cribriform features Carcinoma/carcinoma NST with melanotic features Carcinoma/carcinoma NST with signet ring differentiation DCIS **8500/2** Duct/ductal carcinoma Duct/ductal carcinoma in situ **8500/2** Duct/ductal carcinoma NOS Duct/ductal carcinoma NST (no special type) Duct/ductal carcinoma with apocrine features Duct/ductal carcinoma with apocrine metaplasia Duct/ductal carcinoma with lobular features Duct/ductal carcinoma with micropapillary features	Carcinoma with osteoclastic-like stromal giant cells **8035** Cribriform carcinoma **8201/3** Pleomorphic carcinoma **8022/3**

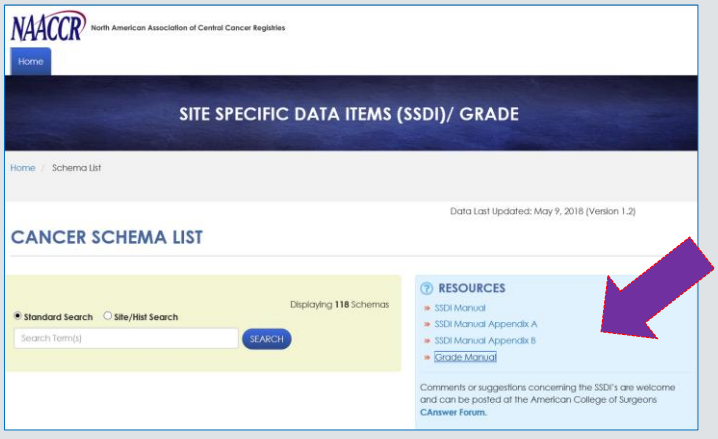
ICD-O-3 Updates - Breast

31

Required Histology Terms	Histology Combination Term and Code
DCIS/duct carcinoma/carcinoma NST **8500** **AND** Lobular carcinoma **8520** *Note 1:* Both histologies, duct and lobular **must have** the **same behavior** code. *Note 2:* **8522** is used when: • Both DCIS/duct carcinoma/carcinoma NST **AND** lobular carcinoma are present in a **single tumor OR** • DCIS/duct carcinoma/carcinoma NST is present in at least **one tumor** and lobular is present in at least **one tumor** in the **same breast** *Example*: One tumor with invasive duct CA in LOQ RT breast; second tumor with invasive lobular in UOQ RT breast *Note 3:* **Do not** use 8522 when the diagnosis is carcinoma NST/duct carcinoma with lobular **differentiation**. The diagnosis **MUST** be invasive carcinoma NST/duct and invasive lobular **carcinoma**. See Histology Rules for instructions on **coding differentiation.**	**Invasive** carcinoma NST/duct carcinoma **and invasive** lobular carcinoma **8522/3** *Note 1:* CAP uses the term Invasive carcinoma with ductal and lobular features ("mixed type carcinoma") *Note 2:* Carcinoma NST includes carcinoma with osteoclastic-like stromal giant cells **8035/3.** DCIS **and in situ** lobular carcinoma **8522/2** *Note:* The lobular carcinoma includes pleomorphic lobular carcinoma in situ **8519/2.**
Invasive duct carcinoma/carcinoma NST **OR** Invasive carcinoma NST/duct carcinoma **subtypes/variants** **AND** **Any invasive** histology in **Table 3 with exception** of • Lobular carcinoma (and subtypes/variants) **8520/3** • Paget disease **8540/3** *Note 1:* See Table 3 for carcinoma NST/duct carcinoma subtypes/variants. *Note 2:* **Do not** use combination code for duct with lobular **differentiation.** *Note 3:* Lobular **subtypes/variants** are excluded because they have the **same code** as lobular **8520.**	Carcinoma NST/duct mixed with other types of carcinoma **8523/3**

Grade Coding Manual

32



https://apps.naaccr.org/ssdi/list/

Grade Coding Manual – Schema ID

33

Grade Coding Instructions and Tables

Effective with Cases Diagnosed 1/1/2018 and Forward

Published April 2018

Editors: Jennifer Ruhl, MSHCA, RHIT, CCS, CTR, NCI SEER
Jim Hofferkamp, CTR, NAACCR
Elizabeth Ward, PhD, Consultant to NAACCR

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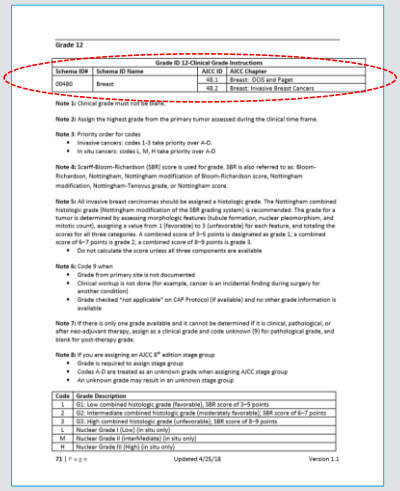

Grade 12

Grade ID 12-Clinical Grade Instructions

Schema ID#	Schema ID Name	AJCC ID	AJCC Chapter
00480	Breast	48.1	Breast: DCIS and Paget
		48.2	Breast: Invasive Breast Cancers

Note 1: Clinical grade must not be blank.

Note 2: Assign the highest grade from the primary tumor assessed during the clinical time frame.

Note 3: Priority order for codes
- Invasive cancers: codes 1-3 take priority over A-D.
- In situ cancers: codes L, M, H take priority over A-D

Note 4: Scarff-Bloom-Richardson (SBR) score is used for grade. SBR is also referred to as: Bloom-Richardson, Nottingham, Nottingham modification of Bloom-Richardson score, Nottingham modification, Nottingham-Tenovus grade, or Nottingham score.

Note 5: All invasive breast carcinomas should be assigned a histologic grade. The Nottingham combined histologic grade (Nottingham modification of the SBR grading system) is recommended. The grade for a tumor is determined by assessing morphologic features (tubule formation, nuclear pleomorphism, and mitotic count), assigning a value from 1 (favorable) to 3 (unfavorable) for each feature, and totaling the scores for all three categories. A combined score of 3–5 points is designated as grade 1; a combined score of 6–7 points is grade 2; a combined score of 8–9 points is grade 3.
- Do not calculate the score unless all three components are available

Note 6: Code 9 when
- Grade from primary site is not documented
- Clinical workup is not done (for example, cancer is an incidental finding during surgery for another condition)
- Grade checked "not applicable" on CAP Protocol (if available) and no other grade information is available

Note 7: If there is only one grade available and it cannot be determined if it is clinical, pathological, or after neo-adjuvant therapy, assign as a clinical grade and code unknown (9) for pathological grade, and blank for post-therapy grade.

Note 8: If you are assigning an AJCC 8th edition stage group
- Grade is required to assign stage group
- Codes A-D are treated as an unknown grade when assigning AJCC stage group
- An unknown grade may result in an unknown stage group

Code	Grade Description
1	G1: Low combined histologic grade (favorable), SBR score of 3–5 points
2	G2: Intermediate combined histologic grade (moderately favorable); SBR score of 6–7 points
3	G3: High combined histologic grade (unfavorable); SBR score of 8–9 points
L	Nuclear Grade I (Low) (in situ only)
M	Nuclear Grade II (InterMediate) (in situ only)
H	Nuclear Grade III (High) (in situ only)

71 | Page Updated 4/25/18 Version 1.1

https://www.naaccr.org/SSDI/Grade-Manual.pdf?v=1528898095

2018 Grade - Breast

34

- **Clinical Grade** - the grade of a solid primary tumor before any treatment. Treatment may include surgical resection, systemic therapy, radiation therapy, or neoadjuvant therapy. NOTE: All surgical procedures are not treatment, e.g. TURB and endoscopic biopsies.
- **Pathological Grade** - the grade of a solid primary tumor that has been surgically resected and for which no neoadjuvant therapy was administered. If AJCC pathological staging is being assigned, the tumor must have met the surgical resection requirements in the AJCC manual. This may include the grade from the clinical workup, as all information from diagnosis (clinical staging) through the surgical resection is used for pathological staging.
- **Post-Therapy Grade** - the grade of a solid primary tumor that has been resected following neoadjuvant therapy. If AJCC post-therapy staging is being assigned, the tumor must have met the surgical resection requirements for yp in the AJCC manual. Neoadjuvant therapy must meet guidelines or standards, and not be that given for variable or unconventional reasons as noted in the AJCC manual.

2018 Grade - Breast

35

Grade 12

Grade ID 12-Clinical Grade Instructions

Schema ID#	Schema ID Name	AJCC ID	AJCC Chapter
00480	Breast	48.1	Breast: DCIS and Paget
		48.2	Breast: Invasive Breast Cancers

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Code	Grade Description
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2	G2: Intermediate combined histologic grade (moderately favorable); SBR score of 6–7 points
3	G3: High combined histologic grade (unfavorable); SBR score of 8–9 points
L	Nuclear Grade I (Low) (in situ only)
M	Nuclear Grade II (interMediate) (in situ only)
H	Nuclear Grade III (High) (in situ only)
A	Well differentiated
B	Moderately differentiated
C	Poorly differentiated
D	Undifferentiated, anaplastic
9	Grade cannot be assessed (GX); Unknown

In situ

Site/Histo = AJCC Schema + Schema ID

36

Primary Site	Histology	Behavior	AJCC ID	Description
C500-C506, C508-C509	8000, 8010, 8022, 8032, 8035, 8041, 8070, 8140, 8200, 8211, 8246, 8255, 8290, 8314-8315, 8401, 8410, 8430, 8480, 8502, 8509-8510, 8513, 8520-8525, 8530, 8540-8541, 8550, 8570-8572, 8574-8575, 8982-8983	2	XX	Other Breast
C500-C506, C508-C509	8201, 8500-8501, 8503-8504, 8507, 8543	2	48.1	Breast DCIS
C500-C506, C508-C509	8000, 8010, 8022, 8032, 8035, 8041, 8070, 8140, 8200-8201, 8211, 8246, 8255, 8290, 8314-8315, 8401, 8410, 8430, 8480, 8500-8504, 8507, 8509-8510, 8513, 8520-8525, 8530, 8540-8541, 8543, 8550, 8570-8572, 8574-8575, 8982-8983	3	48.2	Breast Invasive
C500-C506, C508-C509	8001-8005, 8011-8021, 8023-8031, 8033-8034, 8040, 8042-8060, 8071-8131, 8141-8191, 8202-8210, 8212-8245, 8247-8254, 8256-8281, 8300-8313, 8316-8400, 8402-8409, 8413-8420, 8440-8474, 8481-8490, 8505-8506, 8508, 8512, 8514-8519, 8542, 8551-8562, 8573, 8576-8700, 9700-9701	*<Any value>*	XX	Other Breast
C501-C506, C508-C509	8720-8790	*<Any value>*	XX	Other Breast

Name	Default Value	Description	NAACCR Item
Schema ID	00480		NAACCR #3800
AJCC ID	XX		NAACCR #995

2018 Solid Tumor MP/H Rules

37

Published June 2018 – but still had MAJOR changes in October 2018 – be sure you have the correct set of rules

Solid Tumor Rules

328 pages

Effective with Cases Diagnosed 1/1/2018 and Forward

Published June 2018

Editors: Lois Dickie, CTR, NCI SEER
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Suggested citation: Dickie L., Johnson, CH., Adams, S., Negoita, S. (June 2018). Solid Tumor Rules. National Cancer Institute, Rockville, MD 20850.

General Instructions

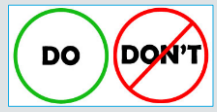
38

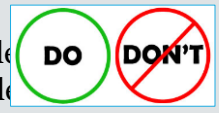
- TEXT ONLY RULES INCLUDE:
  - General Instructions PLUS
  - 10 Sets of Solid Tumor MP/H Rules
  - Each Module includes Multiple Sections (Notes/Site/MP/Histology)
- Code subtypes/variants when definitively described (no modifiers)
- Do Not Use Ambiguous Terminology to Code Histology
- Ambiguous terminology is used to determine "case reportability"
- Ambiguous terminology is not to be used to determine histology
- Ambiguous terminology such as "with features of", etc. are no longer used to determine a subtype OR to determine which histology should be coded. See the following histology rules for instructions on coding multiple histologies.
- Use the Histology (H) Rules to determine when to use or not use any ambiguous terminology when an ambiguous term is used to describe a histologic type – sometimes you use the ambiguous term to code a subtype or variant or mixed histology -- and sometimes you do not.

General Instructions

39

- Introduction
- Changes from 2007 MPH Rules
- Definitions
- Equivalent or Equal Terms
- Terms that are NOT Equivalent or Equal
- Table and Instructions for Coding Primary Site
- Table: Specific Histologies, NOS and Subtypes Variants
- Table: Combination/Mixed Histology Codes
- Table: Histologies Not Reportable for This Site
- Illustrations
- Multiple Primary Rule
- Histology Coding Rule





General Instructions

40

How to Use the Solid Tumor Rules

Note: The rules do not apply to hematopoietic primaries (lymphoma and leukemia) of any site. Use the Hematopoietic & Lymphoid Neoplasm Coding Manual and Database for histologies M9590-M9992.

1. Use the following site-specific rules for tumors diagnosed 1/1/2018 and forward:
   - Malignant CNS and Peripheral Nerves
   - Non-Malignant CNS
   - Breast
   - Colon
   - Head and neck
   - Kidney
   - Lung
   - Urinary sites
2. Use the following site-specific rules for tumors diagnosed 1/1/2007 through 12/31/2018:
   - Malignant melanoma of the skin (not updated for 2018)
   - Other Sites (not updated for 2018) for solid tumors which occur in primary sites not covered by the site-specific rules.
3. 2007 MPH Rules and 2018 Solid Tumor Rules are used based on **date of diagnosis**.
   - Tumors diagnosed 01/01/2007 through 12/31/2017: Use 2007 MPH Rules
   - Tumors diagnosed 01/01/2018 and later: Use 2018 Solid Tumor Rules
   - An original tumor diagnosed before 1/1/2018 and a subsequent tumor diagnosed 1/1/2018 or later **in the same primary site**: Use the 2018 Solid Tumor Rules
4. The Solid Tumor Rules are **not used** to determine case reportability, stage, or tumor grade.
5. Other staging systems are **not used** to determine the number of primaries or histology.
6. Use rules in the following order:
   A. General Instructions
   B. Equivalent Terms and Definitions
   C. Multiple Primary rules
   D. Histology rules
7. The Solid Tumor Rules are available in text format.
8. Notes and examples are included with some of the rules to highlight key points or to add clarity to the rules.
9. Rules are in **hierarchical** order within each module. Use the first rule that applies and

STOP

General Instructions

41

How to Use the Histology Rules

Note 1: Do not use these rules to determine case reportability.
Note 2: First use the Multiple Primary Rules to determine whether this is a single primary or multiple primaries. Determine the histology for each case.

1. Rules are divided into two sections: Single Tumor and Multiple Tumors Abstracted as a Single Primary
   A. Each section is a complete set of rules.
   B. Within each section, the rules are hierarchical. Use the first rule that applies and **STOP**. Do not continue through the rules.
2. Code the histology diagnosis prior to **neoadjuvant therapy**. Neoadjuvant therapy can change the histological profile of the tumor.
3. A list of terms which can be used and terms which cannot be used to code histology precede each set of histology rules.
4. Do not code histologies or subtypes/variants described by **ambiguous terms**:

Apparently	Most likely
Appears	Presumed
Comparable with	Probable
Compatible with	Suspect(ed)
Consistent with	Suspicious (for)
Favor(s)	Typical (of)
Malignant-appearing	

Note: Histology described by ambiguous terminology is coded **ONLY** when a case is accessioned based on ambiguous terminology and no other histology information is available/documented.

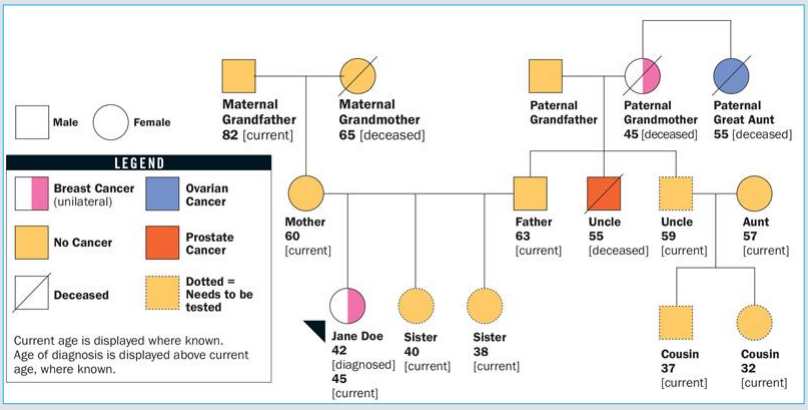
Ambiguous terminology from the SEER Manual and CoC Manual is used to determine reportability, not to determine histology.

Multiple Primary Rules – Remember: Most People Have Only One Cancer

42

Some People or Their Families Have More Than One Cancer

43



https://www.curetoday.com/journey/cancer-guides/at-diagnosis/

2018 MP/H - Breast

44

Changes from 2007 MPH Rules

These changes are effective with cases diagnosed 1/1/2018 and later.

1. **NST (No Special Type), mammary carcinoma NST, and carcinoma NST** are the new terms for duct or ductal carcinoma. Previously, it was thought that carcinoma originated in the ducts or lobules of the breast, hence the names duct carcinoma and lobular carcinoma. Current thinking is that carcinoma originates in the "terminal duct lobular unit" therefore the preferred term is NST or carcinoma NST.
2. **Mammary carcinoma** is a synonym for carcinoma no special type (NST)/duct carcinoma not otherwise specified (NOS) **8500.** It will **no longer** be coded as carcinoma NOS **8010.**
3. **DCIS/Carcinoma NST in situ** has a major classification change.
   A. Subtypes/variant, architecture, pattern, and features **ARE NOT CODED**. The majority of in situ tumors will be coded to DCIS 8500/2.
   B. It is very important to code the grade of all DCIS.
      i. Code grade as designated in current AJCC Manual, SEER Coding Manual, and COC Coding Manual.
      ii. The current breast **WHO** edition emphasizes coding the **grade** of tumor rather than the **subtype/variant**.
      iii. The WHO editions are used internationally by pathologists to keep their nomenclature and histology identification current.
      iv. Over time, **subtypes/variants** will be diagnosed **less frequently.**
4. The invasive subtype/variant is coded **ONLY** when it comprises **greater than or equal to 90%** of the tumor. This change has been implemented in both the WHO and in the CAP protocols.
5. **New codes/terms** are identified by asterisks (*) in the histology table in the Terms and Definitions.
6. Excerpt from the CAP Invasive Breast Protocol (page 17): "A modified list is presented in the protocol based on the most frequent types of invasive carcinomas and terminology that is in widespread usage. The modified list is intended to capture the majority of tumors and reduce the classification of tumors being reported as "other." The WHO classification is presented for completeness".

2018 MP/H - Breast

45

Rule M3 Abstract a **single primary**[i] when there is a **single tumor**.
Note 1: A single tumor is always a single primary.
Note 2: The tumor may overlap onto or extend into adjacent/contiguous site or subsites/quadrants.
Note 3: The tumor may have in situ and invasive components.
Note 4: The tumor may have two or more histologic components.

This is the end of instructions for Single Tumor

[i] **Prepare one abstract. Use the histology rules to assign the appropriate histology code.**

Multiple Tumors

Note: Multiple tumors may be single primary or multiple primaries.

Rule M4 Abstract a **single primary**[i] when there is **inflammatory carcinoma** in:
- Multiple quadrants of same breast **OR**
- Bilateral breasts

Rule M5 Abstract **multiple primaries**[ii] when there are **separate, non-contiguous** tumors in sites with ICD-O **site** codes (C50_) that **differ** at the second (CXxx) and/or third characters (CxXx).
Note 1: Tumors with site codes that differ at the second or third character are in **different primary sites;** for example, a breast tumor C50x and a colon tumor C18x differ at the second and third character.
Note 2: This rule **does not** include metastases. Metastatic tumors are **not used** to determine multiple primaries; for example, liver metastases from the breast cancer would not be counted as a second primary.

Rule M6 Abstract **multiple primaries**[ii] when there is **bilateral** breast cancer (both right and left breast).
Note 1: Physician statement "bilateral breast cancer" should **not be interpreted** as meaning a single primary. The term is descriptive and not used consistently. The literal definition of bilateral is "cancer in both breasts".
Note 2: It is irrelevant how many tumors are in each breast. Abstract as separate primaries.
Note 3: The histologies within each breast may be the same or different.

2018 MP/H - Breast

46

Rule M7 Abstract a **single primary**[i] when the diagnosis is **Paget disease with underlying** in situ or invasive carcinoma NST (duct/ductal).

Rule M8 Abstract **multiple primaries**[ii] when the patient has a subsequent tumor after being **clinically disease-free** for **greater than five years** after the original diagnosis or last recurrence.
Note 1: The rules are hierarchical. This rule **only** applies when there is a **subsequent breast tumor.**
Note 2: **Clinically** disease-free means that there was **no evidence** of recurrence on follow-up.
- Mammograms are NED
- Scans are NED
- Tumor biomarkers are NED

Note 3: When there is a recurrence less than or equal to five years of diagnosis, the **"clock"** starts over. The time interval is calculated from the **date of last recurrence.** In other words, the patient must have been disease-free for greater than five years from the date of the last recurrence.
Note 4: When it is **unknown/not documented** whether the patient had a recurrence, use **date of diagnosis** to compute the time interval.
Note 5: The physician may state this is a **recurrence,** meaning the patient had a previous breast tumor and now has another breast tumor. **Follow the rules;** do not attempt to interpret the physician's statement.

Rule M9 Abstract a **single primary**[i] when **simultaneous** multiple tumors are **carcinoma NST/duct and lobular**.
- Both/all tumors may be a mixture of carcinoma NST/duct and lobular **OR**
- One tumor may be duct and another tumor lobular.

Note 1: Tumors must be in the same breast.
Note 2: Histologies must be the same behavior.
Note 3: Carcinoma NST/duct includes:
- DCIS **8500/2**
- Carcinoma NST **8500/3**
- Carcinoma with osteoclastic-like stromal giant cells **8035/3** (subtype/variant of carcinoma NST)

Note 4: Lobular carcinoma includes:
- In situ lobular carcinoma **8520/2**
- In situ pleomorphic lobular carcinoma **8519/2**
- Invasive lobular carcinoma **8520/3**

2018 MP/H - Breast

47

Rule M10 Abstract **multiple primaries**[ii] when separate/non-contiguous tumors are two or more **different subtypes/variants** in Column 3 of Table 3 in the Equivalent Terms and Definitions. Timing is irrelevant.
Note: The tumors may be subtypes/variants of the same or different NOS histologies.

- **Same NOS**: Encapsulated papillary carcinoma with invasion 8504/3 and solid papillary carcinoma with invasion 8509/3 are both subtypes of invasive papillary carcinoma 8503/3 but are distinctly different histologies. Abstract multiple primaries.
- **Different NOS**: Encapsulated papillary carcinoma 8504/2 is a subtype/variant of in situ papillary carcinoma 8503/2. Pleomorphic lobular carcinoma in situ 8519/2 is a subtype/variant of lobular carcinoma in situ 8520/2. They are distinctly different histologies. Abstract multiple primaries.

Rule M11 Abstract a **single primary**[i] when separate/non-contiguous tumors are on the same row in Table 3 in the Equivalent Terms and Definitions. Timing is irrelevant.
Note 1: The tumors **must be the same behavior**. When one tumor is in situ and the other invasive, continue through the rules.
Note 2: The same row means the tumors are:

- The same histology (same four-digit ICD-O code) **OR**
- One is the preferred term (column 1) and the other is a synonym for the preferred term (column 2) **OR**
- A NOS (column 1/column 2) and the other is a subtype/variant of that NOS (column 3)

Rule M12 Abstract **multiple primaries**[ii] when separate/non-contiguous tumors are on **different rows** in Table 3 in the Equivalent Terms and Definitions. Timing is irrelevant.
Note: Each row in the table is a distinctly different histology.

Rule M13 Abstract a **single primary**[i] (the invasive) when an **in situ** tumor is diagnosed **after** an **invasive** tumor in the same breast.
Note 1: Once the patient has an invasive tumor, the **in situ** is recorded as a **recurrence** for those registrars who collect recurrence data.
Note 2: The rules are **hierarchical.** Only use this rule when none of the previous rules apply.
Note 3: The tumors may be a **NOS** and a **subtype/variant** of that NOS.

Rule M14 Abstract a **single primary**[i] (the invasive) when an **invasive** tumor is diagnosed **less than or equal to 60** days **after** an **in situ** tumor in the same breast.
Note 1: The rules are **hierarchical.** Only use this rule when none of the previous rules apply.
Note 2: The tumors may be a **NOS** and a **subtype/variant** of that NOS.
Note 3: When the case has been abstracted, **change behavior** code on original abstract from /2 to /3.

2018 MP/H - Breast

48

Note 4: Do **not** change **date of diagnosis**.
Note 5: If the case has already been submitted to the central registry, **report** all changes.
Note 6: The physician **may stage both** tumors because staging and determining multiple primaries are done for different reasons. Staging determines which treatment would be most effective. Determining multiple primaries is done to stabilize the data for the study of epidemiology (long-term studies done on incidence, mortality, and causation of a disease with the goal of reducing or eliminating that disease).
Note 7: See the **COC** and SEER manuals for instructions on coding **other data items** such as Date of Diagnosis, Accession Year and Sequence Number.

Rule M15 Abstract **multiple primaries**[ii] when an **invasive** tumor occurs **more than 60** days after an **in situ** tumor in the same breast.
Note 1: The rules are **hierarchical.** Only use this rule when none of the previous rules apply.
Note 2: Abstract **both** the invasive and in situ tumors.
Note 3: Abstract as multiple primaries even if physician states the invasive tumor is disease recurrence or progression.
Note 4: This rule is based on long-term **epidemiologic** studies of recurrence intervals. The specialty medical experts (SMEs) reviewed and approved these rules. Many of the SMEs were also authors, co-authors, or editors of the AJCC Staging Manual.

Rule M16 Abstract a **single primary**[i] when none of the previous rules apply.
Note: Use this rule as a last resort. Please confirm that you have not overlooked an applicable rule.

This is the end of instructions for Multiple Tumors.

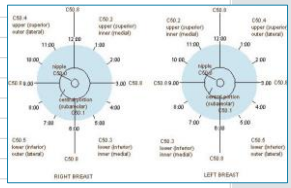
[i] **Prepare one abstract. Use the histology rules to assign the appropriate histology code. For registries collecting recurrence data: When a subsequent tumor is "single primary," record that subsequent tumor as a recurrence.**
[ii] **Prepare two or more abstracts. Use the histology rules to assign the appropriate histology code to each case abstracted.**

ICD-O-3 Updates - Breast

49

2018 ICD-O-3 New Codes, Behaviors, and Terms-Updated 4/20/18

Histology	Be	label
8041	3	Neuroendocrine carcinoma, poorly differentiated (C50._)
8246	3	Neuroendocrine tumor, well differentiated (C50._)
8500	2	Mammary carcinoma, in situ (C50._)
8500	2	Non-invasive mammary carcinoma (C50._)
8500	3	Invasive carcinoma of no special type (C50._)
8500	3	Invasive carcinoma, NST (C50._)
8500	3	Invasive mammary carcinoma (C50._)
8503	2	Intraductal papilloma with ductal carcinoma in situ (C50._)
8504	2	Encapsulated papillary carcinoma C50._)
8504	3	Encapsulated papillary carcinoma with invasion (C50._)
8507	3	Invasive micropapillary carcinoma (C50._)
8509	2	Solid papillary carcinoma in situ (C50._)
8509	3	Solid papillary carcinoma with invasion (C50._)
8519	2	Pleomorphic lobular carcinoma in situ (C50._)
8520	2	Intraductal papilloma with lobular carcinoma in situ (C50._)
8520	3	Invasive lobular carcinoma, alveolar type (C50._)
8520	3	Invasive lobular carcinoma, solid type (C50._)
8520	3	Invasive lobular carcinoma, tubulolobular variant (C50._)
8520	3	Pleomorphic lobular carcinoma (C50._)
8520	3	Invasive lobular carcinoma (C50._)
8520	3	Tubulolobular carcinoma (C50._)



2018 MP/H - Breast

50

Table 3: Specific Histologies, NOS/ NST, and Subtypes/Variants

Use Table 3 as directed by the Histology Rules to assign the more common histology codes for breast tumors.

Note 1: Rare histologies may not be listed in the table. When a histology term is not found, reference ICD-O and all updates.
Note 2: Submit a question to Ask a SEER Registrar when the histology is not found in Table 3, ICD-O or all updates.
Note 3: Behavior codes are listed when the term has only one possible behavior (either a /2 or /3). For histologies which may be either /2 or /3, a behavior code is not listed. Code behavior from pathology.
Note 4: Only use the histology code from the table when the diagnosis is **EXACTLY** the term listed.

Column 1 contains specific and NOS histology terms.
- **Specific** histology terms **do not** have **subtypes/variants**
- **NOS** histology terms **do** have **subtypes/variants.**

Column 2 contains **synonyms** for the specific or NOS term. Synonyms have the **same** histology **code** as the specific or NOS term.
Column 3 contains **subtypes/variants** of the **NOS** histology. Subtypes/variants **do not** have the **same** histology code as the NOS term.

Specific and NOS/NST Terms and Code	Synonyms	Subtypes/Variants
Acinic cell carcinoma 8550	Acinar adenocarcinoma Acinar carcinoma	
Adenoid cystic carcinoma (ACC) 8200	ACC Adenocystic basal cell carcinoma Carcinoma adenoides cysticum Cylindromatous carcinoma	
Adenomyoepithelioma with carcinoma 8983	AME Malignant AME	

2018 MP/H - Breast

51

B. Previously used terms which do not describe the majority of tumor

- Architecture
- Component
  Note: Component does not describe a subtype or the majority of tumor.
- Differentiation
  Note: Only **code differentiation** when there is a **specific code** for the NOS with differentiation in Table 3 or the **ICD-O and all updates.**
  Example: Diagnosis is invasive breast carcinoma with neuroendocrine differentiation which has a specific histology code **8574/3**. Code the histology **8574/3.**
  Negative example: The diagnosis is carcinoma NST/duct carcinoma with apocrine features. There is no ICD-O histology code for carcinoma NST/duct carcinoma with apocrine features. Code carcinoma NST/duct carcinoma **8500.**
- Features (of)
  Note: Only **code features** when there is a **specific code** for the NOS with features in Table 2 or Table 3 or the **ICD-O and all updates.**
- Foci; focus, focal
- Pattern(s)

2018 MP/H - Breast

52

Specific and NOS/NST Terms and Code	Synonyms	Subtypes/Variants
Apocrine carcinoma 8401 *Note:* This is a diagnosis that is **EXACTLY** apocrine **carcinoma**; **not** a carcinoma **NST** with apocrine **features**, **differentiation** or **type.**		
Carcinoma NST 8500	Carcinoma of no special type (ductal/NST) Carcinoma/carcinoma NST with choriocarcinomatous features Carcinoma/carcinoma NST with cribriform features Carcinoma/carcinoma NST with melanotic features Carcinoma/carcinoma NST with signet ring differentiation DCIS **8500/2** Duct/ductal carcinoma Duct/ductal carcinoma in situ **8500/2** Duct/ductal carcinoma NOS Duct/ductal carcinoma NST (no special type) Duct/ductal carcinoma with apocrine features Duct/ductal carcinoma with apocrine metaplasia Duct/ductal carcinoma with lobular features Duct/ductal carcinoma with squamous metaplasia Infiltrating ductal carcinoma **8500/3** Invasive carcinoma with micropapillary features Invasive mammary carcinoma associated with encysted papillary carcinoma Invasive carcinoma not otherwise specified (ductal/NOS) **8500/3** Invasive carcinoma NST with metaplastic features **8500** Invasive carcinoma NST/duct with medullary features **8500/3** Invasive carcinoma, with signet-ring cell features Invasive carcinoma of no special type (NST) **8500/3** Invasive carcinoma with clear cell (glycogen rich) features **8500** Invasive carcinoma, NST **8500/3**	Carcinoma with osteoclastic-like stromal giant cells **8035**

3 pages of synonyms for ductal carcinoma of breast

2018 MP/H - Breast

53

Specific and NOS/NST Terms and Code	Synonyms	Subtypes/Variants
Lobular carcinoma 8520	Alveolar lobular carcinoma Classic lobular carcinoma Invasive lobular carcinoma, alveolar type/variant **8520/3** Invasive lobular carcinoma, solid type **8520/3** Mixed lobular carcinoma (lobular carcinoma NOS and one or more variants of lobular carcinoma) Invasive pleomorphic lobular carcinoma **8520/3** Solid lobular carcinoma Tubulolobular carcinoma	Pleomorphic lobular carcinoma in situ **8519/2*** ***Note:*** 8519/2 is a new code for in situ /2 tumors only.

Mixed In-Situ CA and Invasive CA

54

ONLY CODE THE CHARACTERISTICS
OF THE INVASIVE CARCINOMA

IGNORE ALL IN-SITU COMPONENTS
DO NOT CODE COMBINATION HISTOLOGY

REPEAT
CODE HISTOLOGY BASED ONLY ON THE INVASIVE CANCER CHARACTERISTICS

Inflammatory Carcinoma of Breast

55

- Combined Clinical and Pathological Diagnosis
  - Clinical
    - Symptoms resembling breast inflammation
    - Resembles acute mastitis of breast
    - Diffuse involvement of breast
    - Nipple retraction common
    - No primary tumor mass
    - Warm and reddened
    - Firm and swollen
    - Peau d'orange
    - Itching
  - Pathological
    - Dermal lymphatic invasion proven on biopsy
    - Assign histology code 8530/3 only when final dx on path states ICB
    - Record dermal lymphatic invasion in stage [CS TS, CS Ext, "T" (TNM)]

Paget's Disease of the Nipple

56

- AJCC TNM 8th ed. Statements about Paget's Disease
- ICD-O-3 Rules
- MPH Rules
- AJCC Instruction
- Resolution: It Depends on the evidence for each case

Tis (Paget's)	Paget's disease of the nipple NOT associated with invasive carcinoma and/or carcinoma in situ (DCIS and/or LCIS) in the underlying breast parenchyma. Carcinomas in the breast parenchyma associated with Paget's disease are categorized based on the size and characteristics of the parenchymal disease, although the presence of Paget's disease should still be noted

Paget's disease associated with an underlying cancer (in situ or invasive) should be classified according to the underlying cancer (Tis, T1, etc.)

2018 MP/H - Breast

57

Specific and NOS/NST Terms and Code	Synonyms	Subtypes/Variants
Mucinous carcinoma 8480 *Note:* This is a diagnosis that is **EXACTLY** "mucinous carcinoma," mucinous duct carcinoma," "mucinous DCIS" OR ">90% mucinous." **See Histology Rules.**	Colloid carcinoma Mucinous adenocarcinoma Mucoid carcinoma	
Mucoepidermoid carcinoma 8430		
Myoepithelial carcinoma 8982		
Oncocytic carcinoma 8290		
Paget disease of the nipple with no underlying tumor 8540/3		
Papillary carcinoma 8503	Intraductal papillary carcinoma **8503/2*** Intraductal papillary carcinoma with DCIS **8503/2*** Invasive papillary carcinoma **8503/3** Papillary carcinoma non-invasive **8503/2*** Papillary ductal carcinoma in situ **8503/2***	Encapsulated papillary carcinoma **8504/2** With invasion **8504/3** Intraductal papilloma with lobular carcinoma in situ or with lobular neoplasia **8520/2** Micropapillary carcinoma **8507*** Solid papillary carcinoma in situ **8509/2*** with invasion **8509/3***
Periductal stromal tumor, low grade 9020/3	Phyllodes tumor, malignant	
Polymorphous carcinoma 8525		

2018 MP/H - Breast

58

Rule H11 Code duct carcinoma and invasive lobular carcinoma **8522/3** when there is both invasive carcinoma NST/duct carcinoma and invasive lobular carcinoma.

Note 1: CAP uses the term invasive carcinoma with ductal and lobular features ("mixed type carcinoma") as a synonym for duct carcinoma/carcinoma NST AND invasive lobular carcinoma 8522/3.

Note 2: Although the instructions in the "Coding Multiple Histologies in a Single Tumor" section state, "Code the histology that comprises the majority of tumor", 8522/3 identifies both invasive carcinoma NST/duct carcinoma and invasive lobular carcinoma and is the most accurate description.

Rule H12 Code the **subtype/variant** (specific histology) **ONLY** when there is a NOS/NST and a subtype/variant **AND** the subtype/variant is documented to be **greater than or equal to 90%** of the tumor.

Note 1: When a histology is listed as "minimal", "focus/foci/focal", "microscopic", you can assume the other histological portion comprises at least 90% of the tumor.

Note 2: Use Table 3 to identify **NOS/NST** and subtypes/variants. Examples include the following:

- Carcinoma NST **8500** and a subtype/variant of carcinoma NST
- Glycogen-rich clear cell carcinoma **8315** and a subtype/variant of glycogen-rich clear cell carcinoma
- Lobular carcinoma **8520** and a subtype/variant of lobular carcinoma
- Medullary carcinoma **8510** and a subtype/variant of medullary carcinoma
- Metaplastic carcinoma **8575** and a subtype/variant of metaplastic carcinoma
- Papillary carcinoma **8503** and a subtype/variant of papillary carcinoma
- Sarcoma **8800** and a subtype/variant of sarcoma
- Small cell carcinoma **8041** and a subtype/variant of small cell carcinoma

Note 3: **Do not** code any histology described as **features or differentiation.**

Note 4: The word **component** is not equivalent to subtype/variant.

Example 1: Pathology from excision shows a 1.4 cm tumor and a diagnosis of pleomorphic lobular carcinoma in situ 8519/2 with a foci of in situ lobular carcinoma NOS 8520/2. Because the in situ lobular carcinoma NOS is just a foci, more than 90% of the tumor is pleomorphic lobular carcinoma in situ. Code the subtype/variant: pleomorphic lobular carcinoma in situ 8519/2.

Example 2: Pathology from an excised tumor says tumor is 95% metaplastic carcinoma spindle cell type 8032 and the remainder is metaplastic carcinoma NOS 8575. Code the subtype/variant: metaplastic carcinoma spindle cell type 8032.

2018 – MP/H - Breast

59

Rule H13 Code the **NOS/NST** when there is a NOS/NST and a subtype/variant **AND**
- The subtype/variant is designated as **less than 90%** of tumor **OR**
- The percentage of each is **unknown/not documented**

Example 1: Pathology diagnosis is papillary carcinoma in situ 8503/2 and encapsulated papillary carcinoma 8504/2. The percentage of subtype/variant is unknown. Code the NOS: papillary carcinoma in situ 8503/2.

Example 2: Pathology says the majority of tumor is metaplastic carcinoma with chondroid differentiation 8571 and the remainder is metaplastic carcinoma NOS 8575. Majority simply means greater than 50%, so it is unknown whether or not the subtype/variant is equal to or greater than 90% of the tumor. Code metaplastic carcinoma NOS 8575.

Rule H14 Code the histology that comprises the **majority** of tumor when **two histologies** are:
- On different rows in Table 3 in the Equivalent Terms and definitions **OR**
- **Different subtypes** of the same NOS

Note 1: The majority may be indicated by terms such as "greater than 50%", "major", "majority" and "predominantly".

Note 2: The rules are hierarchical, so the tumors are **NOT** a NOS/NST and subtype/variant.

Example: Pathology reads the tumor is predominantly carcinoma NST 8500/3 with areas of tubular carcinoma 8211/3. Code the predominant histology: carcinoma NST 8500/3. Carcinoma NST and tubular carcinoma are on different rows in Table 3, so they are distinctly different histologies.

Rule H15 Code a **combination code** when there are **two histologies** (two components) within a single tumor and the majority histology is unknown/not documented.

Note 1: Use Table 2 in the Equivalent Terms and Definitions to identify valid combination codes.

Note 2: The rules are hierarchical, so the tumors are **NOT** a NOS/NST and a single subtype/variant.

Note 3: The diagnosis may be two subtypes/variants and the pathologist may mention the presence of duct/carcinoma NST. Ignore the mention of carcinoma NST.

Note 4: **Do not** use a combination code when the second histology is described as **features or differentiation.**

Note 5: The word component may be used when it describes a carcinoma. Do not use the word component when it simply describes features, differentiation, or cell types. For example, carcinoma NST with signet ring cells

Note 6: The histologies may be identified as:
- Mixed histologies
- Combination histologies
- Histology 1 **AND** histology 2
- Histology 1 **WITH** histology 2

2018 MP/H - Breast

60

Coding Multiple Histologies in a Single Tumor

1. **Two INVASIVE histologies** (the following list is in priority order)
   A. **NOS** and **subtype/variant:**
      i. Code the **subtype/variant** (specific histology) **ONLY** when documented to be **greater than or equal to 90%** of the tumor[1].
      Note: When a histology is listed as "minimal", "focus/foci/focal", "microscopic", you can assume the other histological portion comprises at least 90% of the tumor.
      Example: Patient had an excisional **biopsy** with a pathologic diagnosis of pleomorphic lobular carcinoma in situ **8519/2**. There was microscopic involvement of one margin. The patient chose to have a total mastectomy. Pathology from the total mastectomy showed **minimal** residual in situ lobular carcinoma **8520/2**. Because the lobular carcinoma in situ was minimal, the subtype/variant pleomorphic lobular carcinoma **8519/2 must be more than 90% of the tumor.**
      ii. Code the **NOS/NST** when the subtype/variant is documented to be **less than 90%** of the tumor **OR** the percentage of subtype/variant is **unknown/not documented.**
   B. **Different histologies** (excluding NOS and subtype/variant):
      i. Code the histology which comprises the majority of tumor.
      Note: The majority may be indicated by terms such as "greater than 50%", "major", "majority" and "predominantly".
      ii. Code a combination code using Table 2 in the Equivalent Terms and Definitions when the majority is unknown/not documented.
      Note: Different histologies includes:
      - Two subtypes/variants of a single NOS **OR**
      - Different histologies (different rows in Table 3 in the Equivalent Terms and Definitions)

2. **Do not code** histology (NOS/NST, subtype/variant, or specific) when documented with:
   A. Words that describe the more specific histology (unless documented to be greater than or equal to 90% of the tumor)
      - Subtype
      - Type
      - Variant

2018 MP/H - Breast

61

B. Previously used terms which do not describe the majority of tumor

- Architecture
- Component
  Note: Component does not describe a subtype or the majority of tumor.
- Differentiation
  Note: Only **code differentiation** when there is a **specific code** for the NOS with differentiation in Table 3 or the **ICD-O and all updates.**
  Example: Diagnosis is invasive breast carcinoma with neuroendocrine differentiation which has a specific histology code **8574/3**. Code the histology **8574/3.**
  Negative example: The diagnosis is carcinoma NST/duct carcinoma with apocrine features. There is no ICD-O histology code for carcinoma NST/duct carcinoma with apocrine features. Code carcinoma NST/duct carcinoma **8500.**
- Features (of)
  Note: Only **code features** when there is a **specific code** for the NOS with features in Table 2 or Table 3 or the **ICD-O and all updates.**
- Foci; focus, focal
- Pattern(s)

2018 MP/H - Breast

62

Table 2: Histology Combination Codes

Instructions:

1. Compare the **terms** in the **diagnosis** (pathology, cytology, radiographic, clinical) to the terms in **Column 1.**
2. When the terms **match**, use the **combination code** listed in **Column 2.**
3. The **last row** in the table is a "**last resort**" code: adenocarcinoma mixed subtypes **8255.**
4. Use the combination codes only when the histologies are in a **single** tumor **OR multiple tumors** abstracted as a single primary.
5. Mixed histologies may be described as follows:
   A. A "**combination** of"
   B. Histology 1 **AND** histology 2
   C. Histology 1 **WITH** histology 2
   D. **Mixed** histology 1 and histology 2

Note 1: **Do not** use Table 2 in the following situations:

- For tumors with both **invasive** and **in situ** behavior. The Histology Rules instruct to code the invasive histology.
- When one of the histologies is described as **differentiation or features**
- When the terms are a **NOS** and a **subtype/variant** of that NOS. See the Histology Rules for instructions on coding a NOS and a subtype/variant in a single tumor or multiple tumors abstracted as a single primary.

Note 2: Some histologies can be in situ or invasive; others are limited to either /2 or /3 behavior code.

- When a code is **limited to in situ, /2** will be **added** to the code (both components are in situ)
- When a code is **limited to invasive, /3** will be **added** to the code (both components are invasive)

Note 3: This table is not a complete listing of histology combinations.

Column 1 contains the required ICD-O histology terms.
Column 2 contains the histology **combination term** and **code.**

2018 MP/H - Breast

63

Required Histology Terms	Histology Combination Term and Code
DCIS/duct carcinoma/carcinoma NST **8500** **AND** Lobular carcinoma **8520** *Note 1:* Both histologies, duct and lobular **must have** the **same behavior** code. *Note 2:* **8522** is used when: • Both DCIS/duct carcinoma/carcinoma NST **AND** lobular carcinoma are present in a **single tumor OR** • DCIS/duct carcinoma/carcinoma NST is present in at least **one tumor** and lobular is present in at least **one tumor** in the **same breast** *Example*: One tumor with invasive duct CA in LOQ RT breast; second tumor with invasive lobular in UOQ RT breast *Note 3:* **Do not** use 8522 when the diagnosis is carcinoma NST/duct carcinoma with lobular **differentiation**. The diagnosis **MUST** be invasive carcinoma NST/duct and invasive lobular **carcinoma**. See Histology Rules for instructions on **coding differentiation.**	**Invasive** carcinoma NST/duct carcinoma **and invasive** lobular carcinoma **8522/3** *Note 1:* CAP uses the term Invasive carcinoma with ductal and lobular features ("mixed type carcinoma") *Note 2:* Carcinoma NST includes carcinoma with osteoclastic-like stromal giant cells **8035/3.** DCIS **and in situ** lobular carcinoma **8522/2** *Note:* The lobular carcinoma includes pleomorphic lobular carcinoma in situ **8519/2.**
DCIS/duct carcinoma/carcinoma NST **OR** carcinoma NST/duct carcinoma **subtypes/variants** **AND** **Any** histology in **Table 3 with exception** of • Lobular carcinoma (and subtypes/variants) **8520** • Paget disease **8540/3** *Note 1:* See Table 3 for carcinoma NST/duct carcinoma subtypes/variants. *Note 2:* **Do not** use combination code for duct with lobular **differentiation.** *Note 3:* Lobular **subtypes/variants** are excluded because they have the **same code** as lobular **8520.**	Carcinoma NST/duct mixed with other types of carcinoma **8523**

2018 MP/H - Breast

64

Rule M8 Abstract **multiple primaries**[ii] when the patient has a subsequent tumor after being **clinically disease-free** for **greater than five** years after the original diagnosis or last recurrence.
Note 1: The rules are hierarchical. This rule only applies when there is a **subsequent breast tumor.**
Note 2: **Clinically** disease-free means that there was **no evidence** of recurrence on follow-up.
- Mammograms are NED
- Scans are NED
- Tumor biomarkers are NED

Note 3: When there is a recurrence less than or equal to five years of diagnosis, the **"clock"** starts over. The time interval is calculated from the **date of last recurrence.** In other words, the patient must have been disease-free for greater than five years from the date of the last recurrence.
Note 4: When it is **unknown/not documented** whether the patient had a recurrence, default to **date of diagnosis** to compute the time interval.
Note 5: The physician may state this is a **recurrence,** meaning the patient had a previous breast tumor and now has another breast tumor. **Follow the rules;** do not attempt to interpret the physician's statement.

Rule M9 Abstract a **single primary** when **simultaneous** multiple tumors are **carcinoma NST/duct and lobular**:
- Both/all tumors may be a mixture of carcinoma NST/duct and lobular **OR**
- One tumor may be duct and another tumor lobular

Note 1: Tumors must be in the same breast.
Note 2: Histologies must be the same behavior.
Note 3: Carcinoma NST/duct includes:
- DCIS **8500/2**
- Carcinoma NST **8500/3**
- Carcinoma with osteoclastic-like stromal giant cells **8035/3** (subtype/variant of carcinoma NST)

Note 4: Lobular carcinoma includes:
- In situ lobular carcinoma **8520/2**
- In situ pleomorphic lobular carcinoma **8519/2**
- Invasive lobular carcinoma **8520/3**

Biomolecular & Genetic Testing

65

- Hormone Studies are Critical for Treatment Options
  - 2 out of 3 breast cancers are hormone receptor-positive
  - ER-positive and PR-positive breast cancer cells have receptors (proteins) that attach to estrogen, which helps them grow
  - Most hormone therapy for breast cancer either lowers estrogen levels or stops estrogen from acting on breast cancer cells
  - Hormones may also be manipulated with Aromatase Inhibitors
- HER2 – Human Epidermal Growth Factor Receptor 2 is a genetic test for breast tumors with targeted therapy identified when patient is HER2 +

Biomolecular & Genetic Testing

66

Two Examples where ER/PR/HER2 Results Alter AJCC Stage Group

- 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

Breast Cancer Staging – 7 critical items

67

- The extent (size) of the tumor (T):
  - How large is the cancer?
  - Has it grown into nearby areas?
- The spread to nearby lymph nodes (N):
  - Has the cancer spread to nearby lymph nodes? If so, how many?
- The spread (metastasis) to distant sites (M):
  - Has the cancer spread to distant organs such as the lungs or liver?
- Estrogen Receptor (ER) status:
  - Does the cancer have the protein called an estrogen receptor?
- Progesterone Receptor (PR) status:
  - Does the cancer have the protein called a progesterone receptor?
- Her2/neu (Her2) status:
  - Does the cancer make too much of a protein called Her2?
- Grade of the cancer (G):
  - How much do the cancer cells look like normal cells?

Site/Histo = AJCC Schema + Schema ID

68

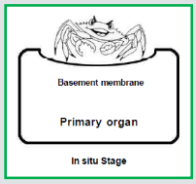
Primary Site	Histology	Behavior	AJCC ID	Description
C500-C506, C508-C509	8000, 8010, 8022, 8032, 8035, 8041, 8070, 8140, 8200, 8211, 8246, 8255, 8290, 8314-8315, 8401, 8410, 8430, 8480, 8502, 8509-8510, 8513, 8520-8525, 8530, 8540-8541, 8550, 8570-8572, 8574-8575, 8982-8983	2	XX	Other Breast
C500-C506, C508-C509	8201, 8500-8501, 8503-8504, 8507, 8543	2	48.1	Breast DCIS
C500-C506, C508-C509	8000, 8010, 8022, 8032, 8035, 8041, 8070, 8140, 8200-8201, 8211, 8246, 8255, 8290, 8314-8315, 8401, 8410, 8430, 8480, 8500-8504, 8507, 8509-8510, 8513, 8520-8525, 8530, 8540-8541, 8543, 8550, 8570-8572, 8574-8575, 8982-8983	3	48.2	Breast Invasive
C500-C506, C508-C509	8001-8005, 8011-8021, 8023-8031, 8033-8034, 8040, 8042-8060, 8071-8131, 8141-8191, 8202-8210, 8212-8245, 8247-8254, 8256-8281, 8300-8313, 8316-8400, 8402-8409, 8413-8420, 8440-8474, 8481-8490, 8505-8506, 8508, 8512, 8514-8519, 8542, 8551-8562, 8573, 8576-8700, 9700-9701	*<Any value>*	XX	Other Breast
C501-C506, C508-C509	8720-8790	*<Any value>*	XX	Other Breast

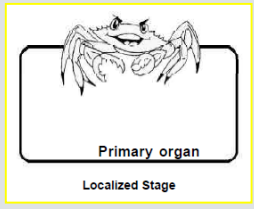
Name	Default Value	Description	NAACCR Item
Schema ID	00480		NAACCR #3800
AJCC ID	XX		NAACCR #995

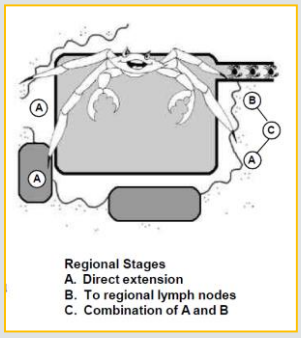
2018 SEER Summary Stage

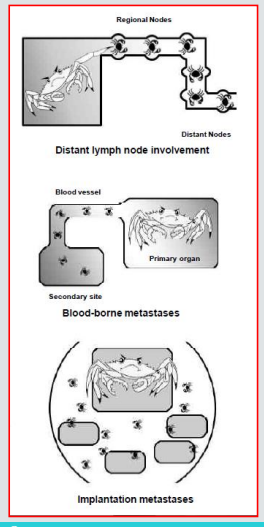
69

Purpose of Staging
Biochemical Tumor Markers
Molecular Tumor Markers
Genetic Mutations/Variations
Risk Stratification









Source: SEER Summary Staging Manual 2018

2018 SEER Summary Stage

70

BREAST

8000-8700, 8720-8790 [except C500], 8982-8983, 9700-9701

C500-C506, C508-C509
C500 Nipple
C501 Central portion of breast
C502 Upper-inner quadrant of breast
C503 Lower-inner quadrant of breast
C504 Upper-outer quadrant of breast
C505 Lower-outer quadrant of breast
C506 Axillary Tail of breast
C508 Overlapping lesion of breast
C509 Breast, NOS

Note 1: The following sources were used in the development of this chapter

- SEER Extent of Disease 1988: Codes and Coding Instructions (3rd Edition, 1998) (https://seer.cancer.gov/archive/manuals/EOD10Dig.3rd.pdf)
- SEER Summary Staging Manual-2000: Codes and Coding Instructions (https://seer.cancer.gov/tools/ssm/)
- Collaborative Stage Data Collection System, version 02.05: https://cancerstaging.org/cstage/Pages/default.aspx
- Chapter 48 *Breast*, in the AJCC Cancer Staging Manual, Eighth Edition (2017) published by Springer International Publishing. Used with permission of the American College of Surgeons, Chicago, Illinois.

Note 3: Changes such as dimpling of the skin, tethering, and nipple retraction are caused by tension on Cooper's ligament(s), not by actual skin involvement. They do not alter the classification.

Note 4: Adherence, attachment, fixation, induration, and thickening are clinical evidence of extension to skin or subcutaneous tissue; assign code 2 for regional extension.

Note 5: "Fixation, NOS" is involvement of pectoralis muscle; assign code 2 for regional extension.

2018 SEER Summary Stage

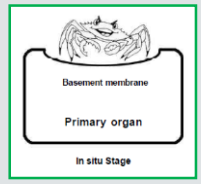
71

Note 6: For a clinical description of inflammation, erythema, edema, peau d'orange, or other terms describing skin changes without a stated diagnosis of inflammatory carcinoma, assign code 2 for regional extension.

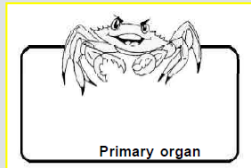
Note 7: Negative nodes with positive ITCs or positive molecular findings less than or equal to 0.2 mm are negative for lymph nodes in Summary Stage.

Note 8: If the pathology report indicates that nodes are positive but size of the metastases is not stated, assume the metastases are greater than 0.2 mm and code the lymph nodes as positive in this field.

Note 9: Bone marrow micrometastasis, circulating tumor cells (CTCs) or disseminated tumor cells and clusters (DTCs) that are less than or equal to 0.2 mm are negative for metastasis in Summary Stage.



In situ Stage



Localized Stage

SUMMARY STAGE

0 In situ, intraepithelial, noninvasive

- In situ: noninfiltrating; intraepithelial
- Intraductal WITHOUT infiltration
- Lobular neoplasia, grade 3 (LIN 3)
- Paget disease, in situ

1 Localized only (localized, NOS)

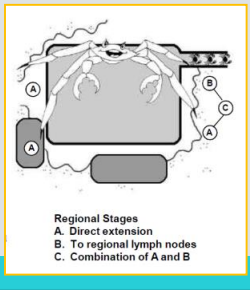
- Confined to breast tissue and fat including nipple and/or areola
- Paget disease WITH or WITHOUT underlying tumor

2018 SEER Summary Stage

72

2 Regional by direct extension only

- Attachment or fixation to pectoral muscle(s) or underlying tumor
- Chest wall
- Deep fixation
- Extensive skin involvement WITH or WITHOUT dermal lymphatic filtration
  - Edema of skin
  - En cuirasse
  - Erythema
  - Inflammation of skin
  - Lenticular nodule(s)
  - Peau d'orange ("pigskin")
  - Satellite nodules
  - Skin edema
  - Ulceration of skin of breast



Regional Stages
A. Direct extension
B. To regional lymph nodes
C. Combination of A and B

4 Regional by BOTH direct extension AND regional lymph node(s) involved

- Codes (2) + (3)

- Inflammatory carcinoma, NOS
- Intercostal or serratus anterior muscle(s)
- Local infiltration of dermal lymphatics adjacent to primary tumor involving skin by direct extension
- Pectoral fascia or muscle(s)
- Rib(s)
- Subcutaneous tissue
- Skin infiltration of primary breast including skin of nipple and/or areola

3 Regional lymph node(s) involved only

- Axillary (ipsilateral), NOS
  - Level I (low-axilla) (low) (superficial), NOS [adjacent to tail of breast]
    - Anterior (pectoral)
    - Lateral (brachial)
    - Posterior (subscapular)
  - Level II (mid-axilla) (central), NOS
    - Interpectoral (Rotter's)
  - Level III (high) (deep), NOS
    - Apical (subclavian)
    - Axillary vein
- Fixed/matted ipsilateral axillary
- Infraclavicular (subclavicular)
- Internal mammary (parasternal) (ipsilateral)
- Intramammary
- Regional lymph node(s), NOS
  - Lymph node(s), NOS

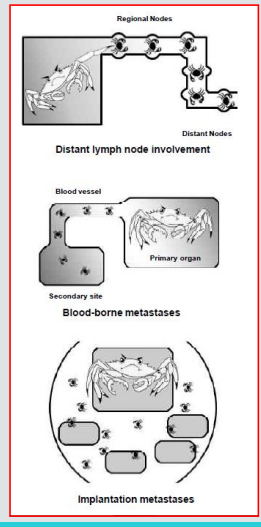
2018 SEER Summary Stage

73

7 Distant site(s)/lymph node(s) involved

- Distant site(s) (including further contiguous extension)
  - Adrenal (suprarenal) gland
  - Bone other than adjacent rib
  - Contralateral (opposite) breast-if stated as metastatic
  - Lung
  - Ovary
  - Satellite nodule(s) in skin other than primary breast
  - Skin over
    - Axilla
    - Contralateral (opposite) breast
    - Sternum
    - Upper abdomen
- Distant lymph node(s), NOS
  - Axillary, contralateral or bilateral
  - Cervical, NOS
  - Internal mammary (parasternal), contralateral or bilateral
  - Supraclavicular (transverse cervical), ipsilateral or contralateral
- Distant metastasis, NOS
  - Carcinomatosis
  - Distant metastasis WITH or WITHOUT distant lymph node(s)

9 Unknown if extension or metastasis

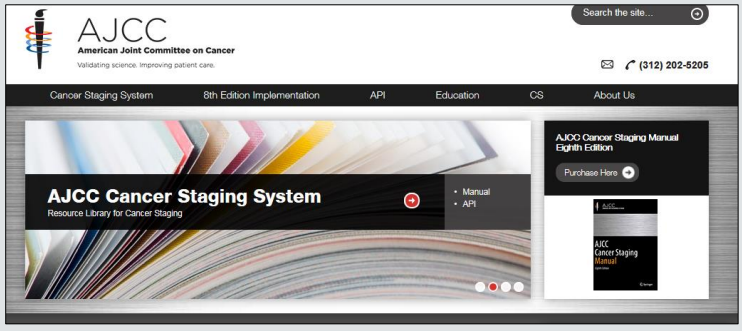


AJCC TNM -- Helpful Information

https://cancerstaging.org

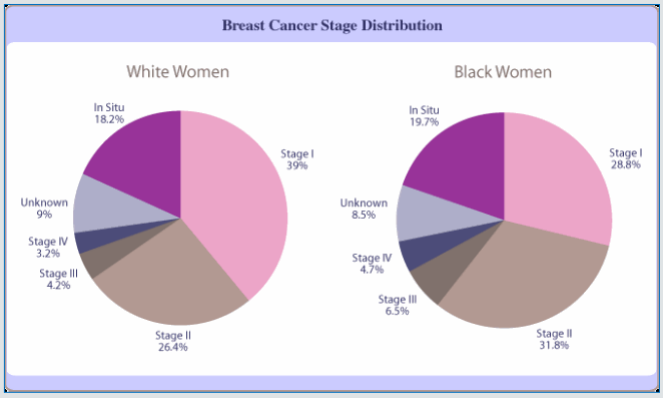
74

AJCC
American Joint Committee on Cancer
Validating science. Improving patient care.



Breast Cancer Stage Distribution

75



http://ww5.komen.org/images

"c" and "p" and "yp"

76

- Clinical (c)
- Clinical Stage is determined before any type of definitive therapy is started and is used as a guide to determine what the first steps used to establish the diagnosis of breast cancer should be and to decide upon approach and intent of 1st treatment – should 1st treatment include lumpectomy, SLN, mastectomy, neoadjuvant chemo, or palliative care.
- Clinical Stage – includes physical exam with inspection and palpation of the skin, breast, and lymph nodes (axillary, supraclavicular, and cervical), breast imaging and other imaging studies, and pathologic examination of the breast or other tissue(s) used to establish/confirm the diagnosis.

"c" and "p" and "yp"

77

- Pathologic (p)
- Pathologic Stage is assigned following complete resection of the primary tumor and must include microscopic examination of the primary, regional lymph nodes and/or other suspect tissues.
- Pathologic Stage is used to guide anatomic stage specific adjuvant therapy decisions and to estimate prognosis.
- Pathologic Stage includes all information in the clinical setting PLUS all information obtained from surgical reports and pathology reports related to the extent of cancer spread through the completion of definitive surgery performed as a part of the 1st course of treatment or within 4 months of initial diagnosis of cancer in the absence of disease progression.

"c" and "p" and "yp"

78

- Post Neoadjuvant Treatment (yp)
- Post Neoadjuvant Treatment Stage is assigned following a prescribed "course" of neoadjuvant therapy (chemo, biologics, radiation, etc.).
- Post Neoadjuvant Treatment Stage includes microscopic examination of the primary, regional lymph nodes and/or other suspect tissues.
- Response to Neoadjuvant Therapy is determined by comparison of pre-treatment Clinical Stage to post-treatment Pathologic Stage and is qualified by the presence or absence of cancer in the primary tumor, regional lymph nodes, etc. or T, N, or M Category Differences.
  - Pathologically Confirmed Complete Response (CR)
  - Pathologically Confirmed Partial Response (PR)
  - Pathologically Confirmed No Response (NRL)

"c" and "p" and "yp"

79

- In order to meet the criteria for neoadjuvant therapy for breast – each case must meet standard NCCN or ASCO Guidelines
  - 4-6 cycles (or more) of chemo
  - 4-6 months (or more) of hormone/endocrine therapy
- Short courses of therapy before full surgical resection of breast (radiation, hormone, chemo) do not count as neoadjuvant therapy – they are just treatment.
- Chemo agents can change and still be neoadjuvant
- Hormone agents can change and still be neoadjuvant

2018 Clarification for cTis and pTis

80

Summary
The following rules should be applied for carcinoma *in situ* depending on when the case was diagnosed. This is based on a diagnostic biopsy with microscopic evidence of *in situ* for the clinical stage, and the appropriate surgical resection performed for the pathological stage.

- Cases diagnosed 2010 – 2016, Seventh Edition:
  - pTis cN0 cM0 clinical stage 0
  - pTis cN0 cM0 pathological stage 0
- Cases diagnosed 2017 – , Eighth Edition:
  - cTis cN0 cM0 clinical stage 0
  - pTis cN0 cM0 pathological stage 0

Tumor Size and Extension

81

- Non-Invasive or In Situ – not always measurable
- Microinvasive Neoplasm – less than 1mm in size
- Mixed Non-Invasive (In Situ) and Invasive - RULE
- Invasive Only – Tumor Size is Measured
- The Primary Tumor Extends Beyond Breast Tissue

Non-Invasive/Minimally Invasive/Invasive

82

- Non-Invasive Includes:
  - Ductal Carcinoma In Situ (DCIS)
  - Lobular Carcinoma In Situ (LCIS)
  - Paget's Disease of Nipple with No Associated In Situ or Invasive Cancer (ductal or lobular)
- Minimally Invasive Includes:
  - Tumor is = or < 1mm in Greatest Dimension
- Invasive Includes:
  - Infiltrating Duct Carcinoma (IDC)
  - Infiltrating Lobular Carcinoma (ILC)
  - Invasive Plus Non-Invasive Cancer in Same Breast
  - Paget's Disease of Nipple with Invasive or In Situ Cancer
  - Other Invasive Neoplasm and Inflammatory Carcinoma

Tis (DCIS)	Ductal carcinoma in situ
Tis (LCIS)	Lobular carcinoma in situ
Tis (Paget's)	Paget's disease of the nipple NOT associated with invasive carcinoma and/or carcinoma in situ (DCIS and/or LCIS) in the underlying breast parenchyma. Carcinomas in the breast parenchyma associated with Paget's disease are categorized based on the size and characteristics of the parenchymal disease, although the presence of Paget's disease should still be noted

T1	Tumor ≤ 20 mm in greatest dimension
T1mi	Tumor ≤ 1 mm in greatest dimension
T1a	Tumor > 1 mm but ≤ 5 mm in greatest dimension
T1b	Tumor > 5 mm but ≤ 10 mm in greatest dimension
T1c	Tumor > 10 mm but ≤ 20 mm in greatest dimension
T2	Tumor > 20 mm but ≤ 50 mm in greatest dimension
T3	Tumor > 50 mm in greatest dimension

AJCC T Category Codes

83

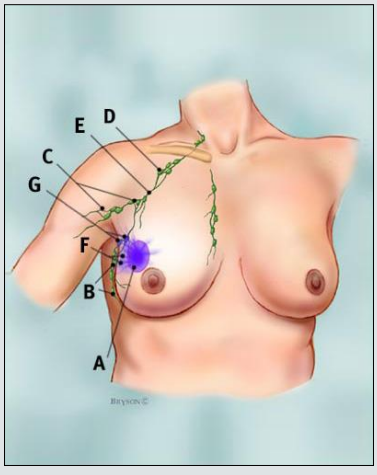
Primary Tumor (Invasive Carcinoma) (pT)

___ pTX:	Primary tumor cannot be assessed
___ pT0:	No evidence of primary tumor[#]
___ pTis (DCIS):	Ductal carcinoma in situ[#]
___ pTis (Paget):	Paget disease of the nipple *not* associated with invasive carcinoma and/or DCIS in the underlying breast parenchyma[##]
___ pT1:	Tumor ≤20 mm in greatest dimension
___ pT1mi:	Tumor ≤1 mm in greatest dimension
___ pT1a:	Tumor >1 mm but ≤5 mm in greatest dimension (round any measurement >1.0−1.9 mm to 2 mm)
___ pT1b:	Tumor >5 mm but ≤10 mm in greatest dimension
___ pT1c:	Tumor >10 mm but ≤20 mm in greatest dimension
___ pT2:	Tumor >20 mm but ≤50 mm in greatest dimension
___ pT3:	Tumor >50 mm in greatest dimension
___ pT4:	Tumor of any size with direct extension to the chest wall and/or to the skin (ulceration or skin nodules)[###]
___ pT4a:	Extension to the chest wall; invasion or adherence to pectoralis muscle in the absence of invasion of chest wall structures does not qualify as T4
___ pT4b:	Ulceration and/or ipsilateral macroscopic satellite nodules and/or edema (including peau d'orange) of the skin that does not meet the criteria for inflammatory carcinoma
___ pT4c:	Both T4a and T4b are present
___ pT4d:	Inflammatory carcinoma

CAP Protocol - Breast

Lymphatics of the Breast

84



A blue dye in lumpectomy site

B axillary lymph nodes: levels I

C axillary lymph nodes: levels II

D axillary lymph nodes: levels III

E large lymphatic channels

F small lymphatic channels

G sentinel lymph nodes taking up dye

http://www.breastcancer.org

Lymphatics of the Breast

85

- Isolated Tumor Cells (ITCs) - very small deposits of tumor cells, no larger than 0.2 mm or no more than 200 cells, found in sentinel lymph node(s).
  - Presence of ITCs is NOT considered positive lymph node(s)
  - Usually identified using immunohistochemistry test on SLN
    - Cytokeratin Antigen Test or CK Test
    - Epithelial Membrane Antigen or EMA Test
- Micrometastasis - tumor deposits greater than 0.2mm but not greater than 2.0mm in largest dimension.
- Macrometastasis - resected lymph nodes greater than 2.0mm in largest dimension OR any clinically positive lymph nodes
- Macrometastasis – any nodal metastases detected by FNA or core biopsy regardless of the size of the tumor focus

AJCC N Category Codes

86

Modifier (required only if applicable)

___ (sn):	Sentinel node(s) evaluated. If 6 or more nodes (sentinel or nonsentinel) are removed, this modifier should not be used.
___ (f):	Nodal metastasis confirmed by fine needle aspiration or core needle biopsy.

Category (pN)

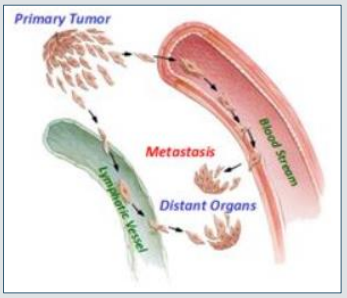
___ pNX:	Regional lymph nodes cannot be assessed (eg, not removed for pathological study or previously removed)
___ pN0:	No regional lymph node metastasis identified or ITCs only[#]
___ pN0 (i+):	ITCs only (malignant cell clusters no larger than 0.2 mm) in regional lymph node(s)
___ pN0 (mol+):	Positive molecular findings by reverse transcriptase polymerase chain reaction (RT-PCR); no ITCs detected
___ pN1mi:	Micrometastases (approximately 200 cells, larger than 0.2 mm, but none larger than 2.0 mm)
___ pN1a:	Metastases in 1 to 3 axillary lymph nodes, at least 1 metastasis larger than 2.0 mm[##]
___ pN1b:	Metastases in ipsilateral internal mammary sentinel nodes, excluding ITCs
___ pN1c:	pN1a and pN1b combined
___ pN2a:	Metastases in 4 to 9 axillary lymph nodes (at least 1 tumor deposit larger than 2.0 mm)[##]
___ pN2b:	Metastases in clinically detected internal mammary lymph nodes with or without microscopic confirmation; with pathologically negative axillary nodes
___ pN3a:	Metastases in 10 or more axillary lymph nodes (at least 1 tumor deposit larger than 2.0 mm) or metastases to the infraclavicular (Level III axillary lymph) nodes[##]
___ pN3b:	pN1a or pN2a in the presence of cN2b (positive internal mammary nodes by imaging); or pN2a in the presence of pN1b
___ pN3c:	Metastases in ipsilateral supraclavicular lymph nodes

CAP Protocol - Breast

Distant Metastasis

87

- Chest Wall
  - Ribs
  - Intercostal muscle
  - Serratus anterior muscle
  - Pectoral muscle is NOT chest wall invasion
- Lymph Nodes
  - Contralateral axillary lymph nodes
  - Contralateral internal mammary or
  - Supraclavicular lymph nodes
  - Cervical lymph nodes
- Distant Metastasis
  - Bone
  - Lung
  - Brain
  - Liver
- Disseminated tumor cells (DTCs) –Bone Marrow
- Circulating tumor cells (CTCs) – Blood Stream

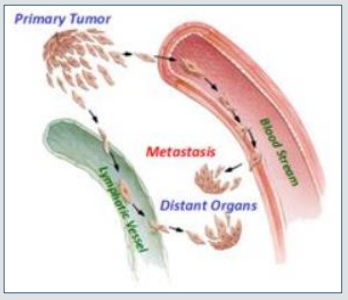


Source: http://www.scripps.edu/felding/images/metastasis.jpg

AJCC M Category Codes

88

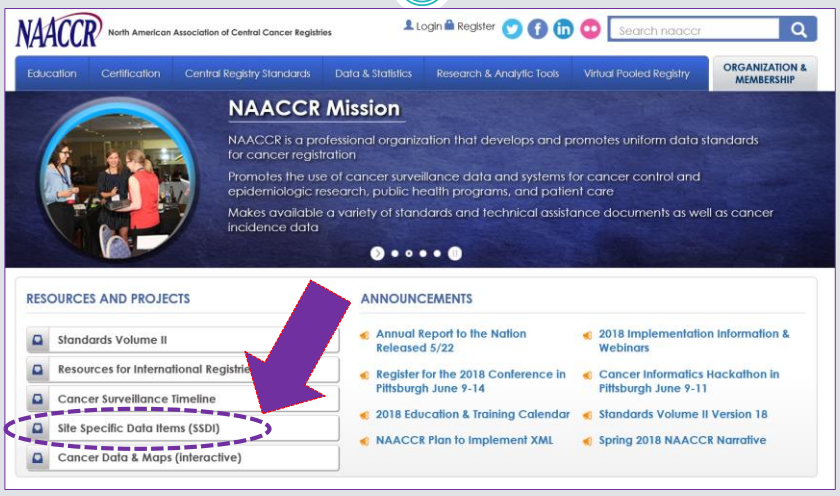
Distant Metastasis (pM) (required only if confirmed pathologically in this case)
___ pM1: Histologically proven metastases larger than 0.2 mm
Specify site, if known:_____



CAP Protocol - Breast

Introduction to SSDI Manual

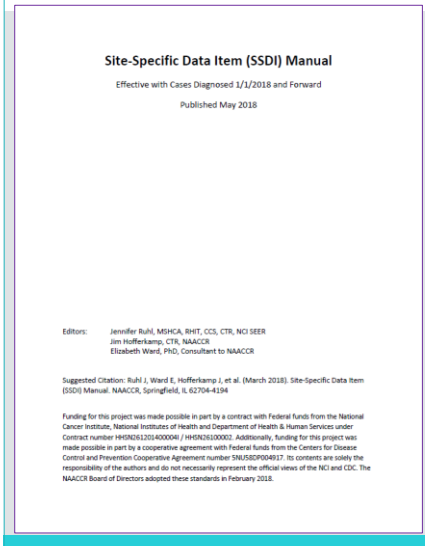
89



https://apps.naaccr.org/ssdi/list/

Introduction to SSDI Manual

90



Site-Specific Data Item (SSDI) Manual

Effective with Cases Diagnosed 1/1/2018 and Forward

Published May 2018

Editors: Jennifer Ruhl, MSHCA, RHIT, CCS, CTR, NCI SEER
Jim Hofferkamp, CTR, NAACCR
Elizabeth Ward, PhD, Consultant to NAACCR

Suggested Citation: Ruhl J, Ward E, Hofferkamp J, et al. (March 2018). Site-Specific Data Item (SSDI) Manual. NAACCR, Springfield, IL 62704-4194

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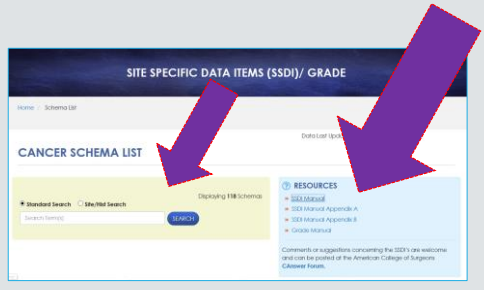


https://apps.naaccr.org/ssdi/list/

Types of Site Specific Data Items

91

- Prognostic Factors "Required for Stage Grouping" (All Cases)
  - Not ALL SSDIs Labeled "Required for Stage Grouping" are actually required for staging.
  - Some "Required for Stage Grouping" Items have "Prognostic Significant" and are Required.
- Additional Factors Recommended for Clinical Care (CoC/NCDB and SEER)
- Emerging Factors for Clinical Care (Web Only – Not Required)
- May Include Molecular or Protein Biomarkers, Genetic Markers, Lab Test Value, Interpretation of Lab Value, Clinical Factors such as Size of Lymph Node, Alternate Staging such as FIGO, Measured Depth of Invasion (Breslow Depth), Site Specific Grade Detail (Gleason), Cytogenetics, Immunochemistry, Surgical Margin Details, MSI or Microsatellite Instability and More
- You may not see the SSDIs that clinicians reference and think are important today…the reason is that it takes time for cancer registry standards to catch up with present day technology and testing – particularly for genetic factors.
- Your Cancer Program can define any additional SSDIs you would like to capture for your physicians – genetic markers for lung for example - approve these through your Cancer Committee and carefully define user-defined instructions and codes

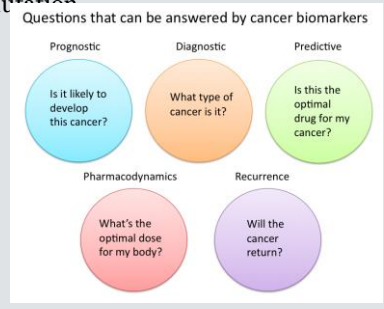
Types of Site Specific Data Items

92

- Molecular Genetics still minimally addressed in 2018 SSDIs
- 2018 SSDIs support TNM data - not biomarkers/molecular markers or genetics
- Most evaluate genetic mutations and/or protein surface markers
- Some have targeted therapy(s) associated with mutation

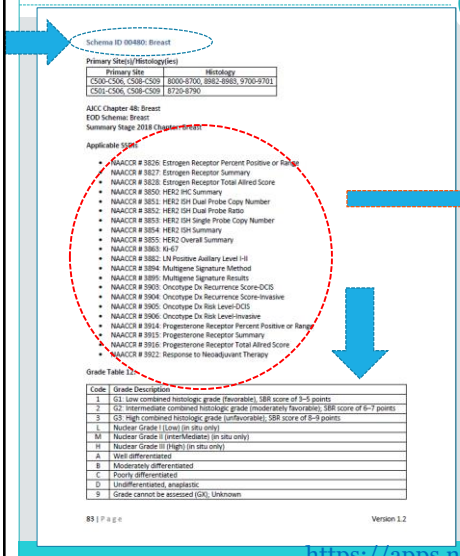
- Chromosomal Abnormality(s) – Mutation
- Biochemical Abnormality
- Genetic/DNA Mutation

- Prognostic
- Diagnostic
- Predictive
- Tumor Burden
- Pharmacodynamics
- Recurrence Monitoring



Schema ID Drives the SSDI Tables

93



Schema ID 00480: Breast

Primary Site(s)/Histology(ies)

Primary Site	Histology
C500-C506, C508-C509	8000-8700, 8982-8983, 9700-9701
C501-C506, C508-C509	8720-8790

AJCC Chapter 48: Breast
EOD Schema: Breast
Summary Stage 2018 Chapter: Breast

Applicable SSDI:

- NAACCR # 3826: Estrogen Receptor Percent Positive or Range
- NAACCR # 3827: Estrogen Receptor Summary
- NAACCR # 3828: Estrogen Receptor Total Allred Score
- NAACCR # 3850: HER2 IHC Summary
- NAACCR # 3851: HER2 ISH Dual Probe Copy Number
- NAACCR # 3852: HER2 ISH Dual Probe Ratio
- NAACCR # 3853: HER2 ISH Single Probe Copy Number
- NAACCR # 3854: HER2 ISH Summary
- NAACCR # 3855: HER2 Overall Summary
- NAACCR # 3863: Ki-67
- NAACCR # 3882: LN Positive Axillary Level I-II
- NAACCR # 3894: Multigene Signature Method
- NAACCR # 3895: Multigene Signature Results
- NAACCR # 3903: Oncotype Dx Recurrence Score-DCIS
- NAACCR # 3904: Oncotype Dx Recurrence Score-Invasive
- NAACCR # 3905: Oncotype Dx Risk Level-DCIS
- NAACCR # 3906: Oncotype Dx Risk Level-Invasive
- NAACCR # 3914: Progesterone Receptor Percent Positive or Range
- NAACCR # 3915: Progesterone Receptor Summary
- NAACCR # 3916: Progesterone Receptor Total Allred Score
- NAACCR # 3922: Response to Neoadjuvant Therapy

Grade Table ID:

Code	Grade Description
1	G1: Low combined histologic grade (favorable); SBR score of 3–5 points
2	G2: Intermediate combined histologic grade (moderately favorable); SBR score of 6–7 points
3	G3: High combined histologic grade (unfavorable); SBR score of 8–9 points
L	Nuclear Grade I (Low) (in situ only)
M	Nuclear Grade II (InterMediate) (in situ only)
H	Nuclear Grade III (High) (in situ only)
A	Well differentiated
B	Moderately differentiated
C	Poorly differentiated
D	Undifferentiated, anaplastic
9	Grade cannot be assessed (GX); Unknown

83 | Page Version 1.2

Schema ID#/Description	AJCC #/Chapter	SSDI #/Description
00480: Breast	48:BREAST	3826: Estrogen Receptor Percent Positive or Range 3827: Estrogen Receptor Summary 3828: Estrogen Receptor Total Allred Score 3914: Progesterone Receptor Percent Positive or Range 3915: Progesterone Receptor Summary 3916: Progesterone Total Allred Score 3850: HER2 IHC Summary 3851: HER2 ISH Dual Probe Copy Number 3852: HER2 ISH Dual Probe Ratio 3853: HER2 ISH Single Probe Copy Number 3854: HER2 ISH Summary 3855: HER2 Overall Summary 3894: Multigene Signature Method 3895: Multigene Signature Results 3903: Oncotype Dx Recurrence Score-DCIS 3904: Oncotype Dx Recurrence Score-Invasive 3905: Oncotype Dx Risk Level-DCIS 3906: Oncotype Dx Risk Level-Invasive 3863: Ki-67 3882: LN Positive Axillary Level I-II 3922: Response to Neoadjuvant Therapy

https://apps.naaccr.org/ssdi/list/

2018 SSDIs - Breast

94

Schema ID#/Description	AJCC #/Chapter	SSDI #/Description
00480: Breast	48:BREAST	3826: Estrogen Receptor Percent Positive or Range 3827: Estrogen Receptor Summary 3828: Estrogen Receptor Total Allred Score 3914: Progesterone Receptor Percent Positive or Range 3915: Progesterone Receptor Summary 3916: Progesterone Total Allred Score 3850: HER2 IHC Summary 3851: HER2 ISH Dual Probe Copy Number 3852: HER2 ISH Dual Probe Ratio 3853: HER2 ISH Single Probe Copy Number 3854: HER2 ISH Summary 3855: HER2 Overall Summary 3894: Multigene Signature Method 3895: Multigene Signature Results 3903: Oncotype Dx Recurrence Score-DCIS 3904: Oncotype Dx Recurrence Score-Invasive 3905: Oncotype Dx Risk Level-DCIS 3906: Oncotype Dx Risk Level-Invasive 3863: Ki-67 3882: LN Positive Axillary Level I-II 3922: Response to Neoadjuvant Therapy

AJCC has specific instructions for how to use hormone receptor study results and the multigene panel results to assign TNM Category/AJCC Group.

2018 SSDIs - Breast

95

Breast

Estrogen Receptor and Progesterone Receptor

Definition

Estrogen receptor (ER) positivity and progesterone receptor (PR) positivity are favorable prognostic factors in breast cancer, as well as endometrial carcinoma and meningioma. Positive results predict a favorable response to endocrine (hormonal) therapy. Combined ER and PR positivity is associated with increased response to antiestrogen therapies.

There are a variety of ways to report information on ER and PR results, but there is almost always a summary statement that the result is positive or negative.

The following data items are used to collect ER and PR information

- Estrogen Receptor Percent Positive or Range [NAACCR Data Item #3826]
- Estrogen Receptor Summary [NAACCR Data Item #3827]
- Estrogen Receptor Total Allred Score [NAACCR Data Item #3828]
- Progesterone Receptor Percent Positive or Range [NAACCR Data Item #3914]
- Progesterone Receptor Summary [NAACCR Data Item #3915]
- Progesterone Receptor Total Allred Score [NAACCR Data Item #3916]

Note: Do not use results from the following tests to record ER or PR results

- Oncotype Dx
- MammaPrint
- EndoPredict
- PAM 50 (Prosigna)
- Any other test that records HER2

Code	Description
000	ER negative, or stated as less than 1%
001-100	1-100 percent
R10	Stated as 1-10%
R20	Stated as 11-20%
R30	Stated as 21-30%
R40	Stated as 31-40%
R50	Stated as 41-50%
R60	Stated as 51-60%
R70	Stated as 61-70%
R80	Stated as 71-80%
R90	Stated as 81-90%
R99	Stated as 91-100%
XX8	Not applicable: Information not collected for this case (If this item is required by your standard setter, use of code XX8 will result in an edit error.)
XX9	Not documented in medical record ER (Estrogen Receptor) Percent Positive or Range not assessed or unknown if assessed

Code	Description
0	ER negative
1	ER positive
7	Test ordered, results not in chart
9	Not documented in medical record Cannot be determined (indeterminate) ER (Estrogen Receptor) Summary status not assessed or unknown if assessed

2018 SSDIs - Breast

96

Note 3: The Allred system looks at what percentage of cells test positive for hormone receptors, along with how well the receptors show up after staining (this is called "intensity"). This information is then combined to score the sample on a scale from 0 to 8. The higher the score, the more receptors were found and the easier they were to see in the sample.

- The registrar should not calculate the intensity score unless both components are available (proportion score and intensity)

Note 4: If ER test is performed, but Allred score is not documented, or cannot be calculated, code X9.

Code	Description
00	Total ER Allred score of 0
01	Total ER Allred score of 1
02	Total ER Allred score of 2
03	Total ER Allred score of 3
04	Total ER Allred score of 4
05	Total ER Allred score of 5
06	Total ER Allred score of 6
07	Total ER Allred score of 7
08	Total ER Allred score of 8
X8	Not applicable: Information not collected for this case (If this item is required by your standard setter, use of code X8 will re error.)

Code	Description
0	HER2 negative; equivocal
1	HER2 positive
7	Test ordered, results not in chart
9	Not documented in medical record Cannot be determined (indeterminate) HER2 Overall Summary status not assessed or unknown if assessed

Code	Description
0	Negative [not amplified]
2	Equivocal
3	Positive [amplified]
7	Test ordered, results not in chart
8	Not applicable: Information not collected for this case (If this item is required by your standard setter, use of code 8 will result in an edit error.)
9	Not documented in medical record Results cannot be determined (indeterminate) HER2 ISH Summary not assessed or unknown if assessed

Code	Description
0.0-99.9	Reported HER2 copy number of 0.0-99.9
XX.1	Reported HER2 copy number of 100 or greater
XX.7	Test ordered, results not in chart
XX.8	Not applicable: Information not collected for this case (If this item is required by your standard setter, use of code XX.8 will result in an edit error.)
XX.9	Not documented in medical record Cannot be determined (indeterminate) HER2 ISH Dual Probe Copy Number not assessed or unknown if assessed

2018 SSDIs - Breast

97

Breast

Multigene Signature Method and Results

Definition

Multigene testing is usually done for node-negative female breast cancer patients to predict risk of recurrence within a specified time period or to predict the likelihood that the patient will respond to specific types of chemotherapy. Multigene testing helps tailor treatment for the woman's specific cancer characteristics. Recent studies indicate that these tests may also be helpful in planning treatment and predicting recurrence in node positive women with small tumors. Some types of tests may be specific to ER positive or negative patients or women in a certain age range. Many different types of genetic testing are available, including IHC-, FISH-, RT-PCR-, and genomic microarray-based multigene predictors.

For the Breast cases, there are 2 data items that record information on Multigen

- Multigene Signature Method [NAACCR Data Item #3894]
- Multigene Signature Results [NAACCR Data Item #3895]

- **Source documents:** specialty reference laboratories (private companies with proprietary testing methods); the actual report may be included in the medical record or may be referenced by the clinician.
- **Other names:** genomic profiling, multigene testing, multigene assay, microarray assay, molecular diagnostics for treatment planning

AJCC has specific instructions for how to use multigene panel results to assign the correct TNM Category/AJCC Group.

Information is collected on the following tests

- **MammaPrint:** A genomic test that analyzes the activity of certain genes in early-stage breast cancer. Developed to help make treatment decisions based on the cancer's risk of coming back (recurrence) within 10 years after diagnosis.
- **PAM 50 (Prosigna):** PAM50 stands for Prediction Analysis of Microarray 50. It tests a sample of the tumor (removed during a biopsy or surgery) for a group of 50 genes. Along with other factors, the results of the PAM50 (Prosigna) test help predict the chance of metastasis (when cancer spreads to other organs). Prosigna also helps to determine the molecular subtype of breast cancer.
- **Breast Cancer Index:** Analyzes the activity of seven genes to help predict the risk of node-negative, hormone-receptor-positive breast cancer coming back 5 to 10 years after diagnosis. The test can help women and their doctors decide if extending hormonal therapy 5 more years (for a total of 10 years of hormonal therapy) would be beneficial. The Breast Cancer Index reports two scores: how likely the cancer is to recur 5 to 10 years after diagnosis and how likely a woman is to benefit from taking hormonal therapy for a total of 10 years.
- **EndoPredict:** A genomic test for people newly diagnosed with early-stage, estrogen-receptor-positive, HER2-negative breast cancer. May be used to help make treatment decisions based on the cancer's risk of coming back in a part of the body away from the breast (distant metastasis) within 10 years after diagnosis. The EndoPredict test provides a risk score that is either low-risk or high-risk of breast cancer recurring as distant metastasis. Knowing if the cancer has a high or low risk of recurrence can help women and their doctors decide if chemotherapy or other treatments to reduce risk after surgery are needed.

2018 SSDIs - Breast

98

Coding Instructions and Codes

Note 1: Physician statement of the Multigene Signature Method can be used to code this data item.

Note 2: Multigene signatures or classifiers are assays of a panel of genes from a tumor specimen, intended to provide a quantitative assessment of the likelihood of response to chemotherapy and to evaluate prognosis or the likelihood of future metastasis.

Note 3: Code the type of test performed. The same test should be used to r
Multigene Signature Results [NAACCR Data Item # 3895].

Note 4: Oncotype Dx tests are not recorded in this data item. See the follow
Dx.

- Oncotype Dx Recurrence Score-DCIS [NAACCR Data Item # 3903]
- Oncotype Dx Risk Level-DCIS [NAACCR Data Item # 3905]
- Oncotype Dx Recurrence Score-Invasive [NAACCR Data Item # 3904
- Oncotype Dx Risk Level-Invasive [NAACCR Data Item # 3906]

Code	Description
1	Mammaprint
2	PAM50 (Prosigna)
3	Breast Cancer Index
4	EndoPredict
5	Test performed, type of test unknown
6	Multiple tests, any tests in codes 1-4
7	Test ordered, results not in chart
8	Not applicable: Information not collected for this case (If this item is required by your standard setter, use of code 8 will r

Breast

Oncotype Dx Tests

The recording of Oncotype Dx was previously collected in Multigene Signature Results and Multigene Signature Method in CSv2. Oncotype Dx now has four data items

- Oncotype Dx Recurrence Score-DCIS [NAACCR Data Item # 3903]
- Oncotype Dx Risk Level-DCIS [NAACCR Data Item # 3905]
- Oncotype Dx Recurrence Score-Invasive [NAACCR Data Item # 3904]
- Oncotype Dx Risk Level-Invasive [NAACCR Data Item # 3906]

Oncotype DX DCIS Score

Definition

The Oncotype DX DCIS score is a genomic test that estimates the likelihood of local recurrence (DCIS or invasive) for a patient with DCIS. The results may be used clinically to evaluate benefits of radiation therapy following surgery.

The Oncotype DX DCIS score, a numeric value from 0-100, is coded in NAACCR Data Item #3903.

Oncotype DX DCIS Risk Level, coded in NAACCR Data Item #3905, stratifies the Oncotype DX DCIS Score into three risk levels:

- **Low risk: Recurrence Score lower than 39:** The DCIS has a lower risk of recurrence.
- **Intermediate Risk: Recurrence Score between 39 and 54:** The DCIS has an intermediate risk of recurrence.
- **High risk: Recurrence Score greater than 54:** The DCIS has a higher risk of recurrence.

AJCC has specific instructions for how to use multigene panel results to assign the correct TNM Category/AJCC Group.

2018 SSDIs - Breast

99

Breast

Oncotype Dx Risk Level-DCIS

Code	Description
0	Low risk (recurrence score 0-38)
1	Intermediate risk (recurrence score 39-54)
2	High risk (recurrence score greater than or equal to 55)
6	Not applicable: invasive case
7	Test ordered, results not in chart
8	Not applicable: Information not collected for this case (If this item is required by your standard setter, use of code 8 will result in an
9	Not documented in medical record Oncotype Dx Risk Level-DCIS not assessed or unknown if assessed

AJCC has specific instructions for how to use multigene panel results to assign the correct TNM Category/AJCC Group.

Breast

Response to Neoadjuvant Therapy

Code	Description
0	Neoadjuvant therapy not given
1	Stated as complete response (CR)
2	Stated as partial response (PR)
3	Stated as response to treatment, but not noted if complete or partial
4	Stated as no response (NR)
8	Not applicable: Information not collected for this case (If this item is required by your standard setter, use of code 8 will result in an edit error.)
9	Not documented in medical record Response to neoadjuvant therapy not assessed or unknown if assessed

Breast

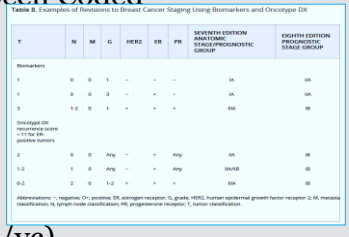
Oncotype Dx Risk Level-Invasive

Code	Description
0	Low risk (recurrence score 0-17)
1	Intermediate risk (recurrence score 18-30)
2	High risk (recurrence score greater than or equal to 31)
6	Not applicable: DCIS case
7	Test ordered, results not in chart
8	Not applicable: Information not collected for this case (If this item is required by your standard setter, use of code 8 will result in an edit error.)
9	Not documented in medical record Oncotype Dx Risk Level-Invasive not assessed or unknown if assessed

Determining Prognostic Stage Group

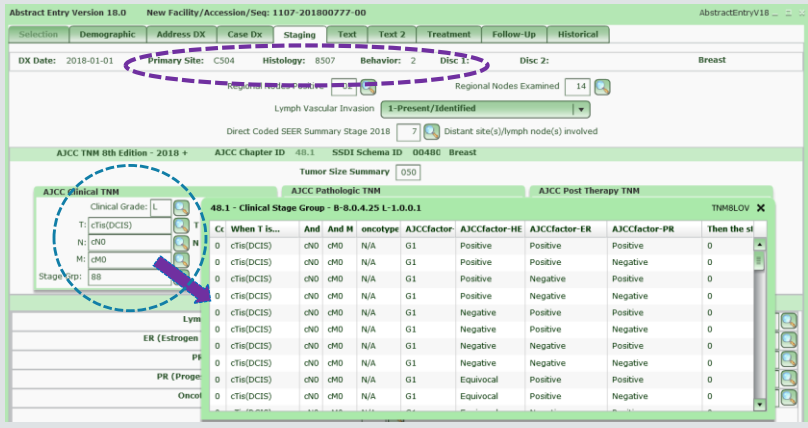
100

- MUST MEET THE CRITERIA FOR STAGING TO BE STAGED
- Verify ALL Required Variables Have Been Coded
- Clinical Prognostic Stage Group
- Pathological Prognostic Stage Group
- Response to Neoadjuvant Therapy (yp/yc)
- Proper Use of Clinical and Pathological Descriptor Fields



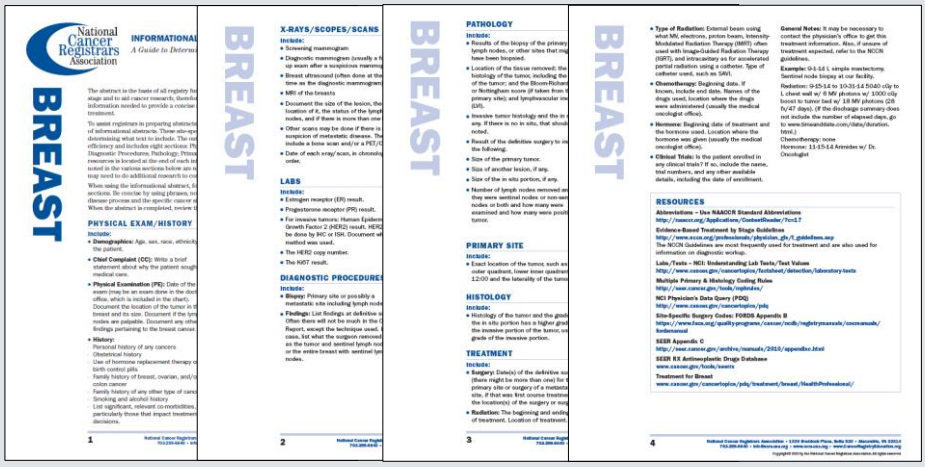
Determining Prognostic Stage Group Breast (in-situ)

101



Text Documentation

102



Source: NCRA Informational Abstracts – Improving Text

Staging Practice

103

Questions

104