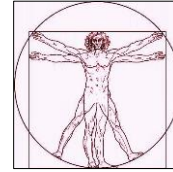


Neoplasms of the Breast

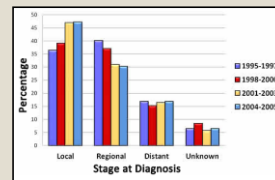


2015-2016 FCDS EDUCATIONAL WEBCAST SERIES
STEVEN PEACE, BS, CTR
JANUARY 21, 2016



2016 Focus

- Anatomy
- SS 2000
- AJCC TNM
- MPH Rules



CDC & Florida DOH Attribution

2

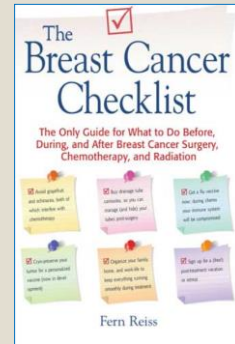
“We acknowledge the Centers for Disease Control and Prevention, for its support of the Florida Cancer Data System, and the printing and distribution of the materials for the 2015-2016 FCDS Webcast Series under cooperative agreement DPO03872-03 awarded to the Florida Department of Health. The findings and conclusions in this series are those of the author(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention”.

FCDS would also like to acknowledge the Florida Department of Health for its support of the Florida Cancer Data System, including the development, printing and distribution of materials for the 2015-2016 FCDS Webcast Series under state contract CODJU. The findings and conclusions in this series are those of the author(s) and do not necessarily represent the official position of the Florida Department of Health.

Presentation Outline

3

- Introduction to Neoplasms of the Breast
- Anatomy of the Breast
- Diagnostic Workup
- Critical Breast MPH Rules
- 2016 - New Use of “c” and “p” Prefix
- 2016 - New T, N, M Category Codes
- Anatomic Staging (AJCC TNM / SS2000)
- Text Documentation
- Staging Practice
- Questions



Presentation Outline

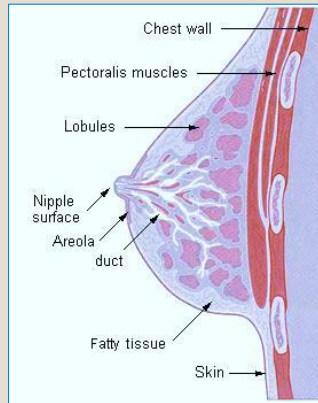
4

- What we will not be discussing today – not enuf time.
 - Risk Factors
 - Signs & Symptoms
 - Screening Guidelines
 - Details of Breast MPH Rules
 - Every Histologic Type of Breast Cancer
 - AJCC TNM General Instructions and Rules
 - Conflicts between MPH Rules and TNM Chapters
 - ER/PR or HER2 Site Specific Factor Coding
 - Biologic, Molecular, Single or Multi-Gene Testing
 - NCCN or Other Treatment Guidelines



Introduction

5



- Breast Cancer is not a single disease
- Breast Cancer has 21+ histologic subtypes
- Breast Cancer has 4+ molecular subtypes
- Two main breast cancer histologic types:
 - Lobular carcinoma starts in parts of the breast called lobules which produce milk.
 - Ductal carcinoma starts in the ducts that move milk from the lobules to the nipple.
- Most breast cancers are ductal type.
- Breast cancer can start in other areas of the breast (fatty, connective, or lymphatic tissues), but these occurrences are rare.

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

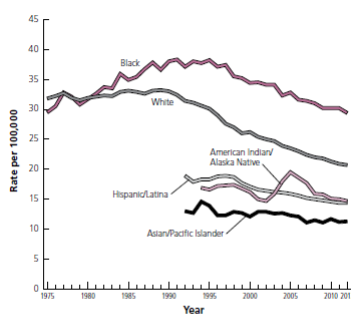
<http://www.ncbi.nlm.nih.gov/pubmedhealth>

Source: SEER Training Modules

Introduction

6

Figure 5b. Trends in Female Breast Cancer Death Rates* by Race and Ethnicity, US, 1975-2012



*Rates are age adjusted to the 2000 US standard population.
 Source: US mortality data, National Center for Health Statistics, Centers for Disease Control and Prevention, as provided by the Surveillance, Epidemiology, and End Results Program, National Cancer Institute. Rates for American Indian/Alaska Native are based on CHSDA counties and are 3-year moving averages. Rates for Hispanics exclude deaths from New Hampshire and Oklahoma.
 American Cancer Society, Inc., Surveillance Research, 2015

U.S. 2015 New Cases = 292,130

- 231,840 invasive cancers
- 60,290 in-situ cancers
 - 83% DCIS
 - 13% LCIS

U.S. 2015 Deaths = 40,290

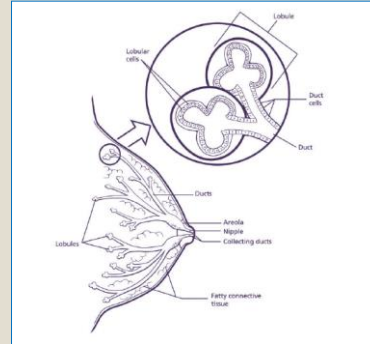
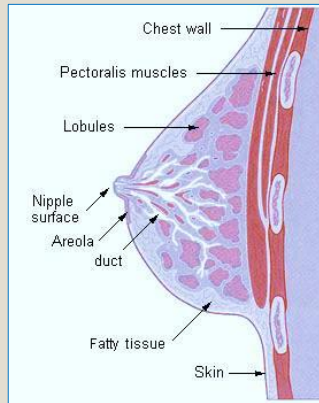
Table 1. Estimated New Female Breast Cancer Cases and Deaths by Age, US, 2015*

Age	In Situ Cases	Invasive Cases	Deaths
<40	1,650	10,500	1,010
40-49	12,310	35,850	3,690
50-59	16,970	54,060	7,600
60-69	15,850	59,990	9,090
70-79	9,650	42,480	8,040
80+	3,860	28,960	10,860
All ages	60,290	231,840	40,290

*Rounded to the nearest 10.
 American Cancer Society, Inc., Surveillance Research, 2015

Anatomy of the Breast

7



Source: SEER Training Modules

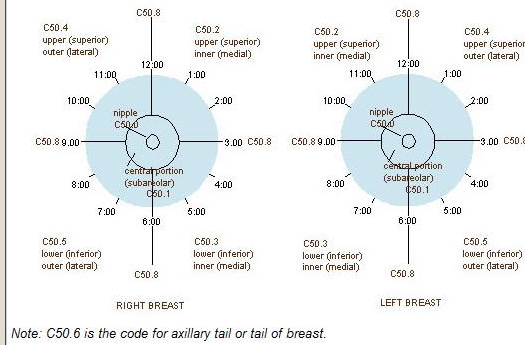
Source: <http://cancer.org/breastcancer>

Anatomy of the Breast

8

Quadrants of the Breast

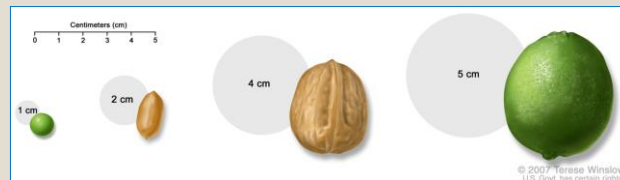
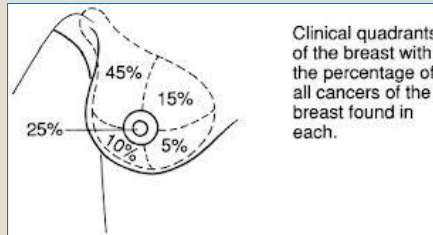
"Clock" Positions, Quadrants and ICD-O Codes of the Breast



Source: SEER Training Modules

Anatomy of the Breast

9

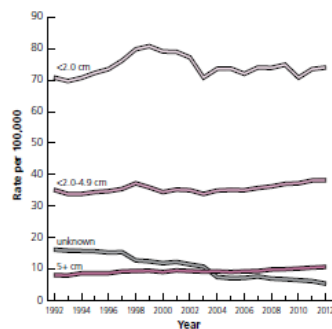


Source: oncolink.org/resources

Anatomy of the Breast

10

Figure 6. Trends in Female Breast Cancer Incidence Rates* by Tumor Size, US, 1992-2012

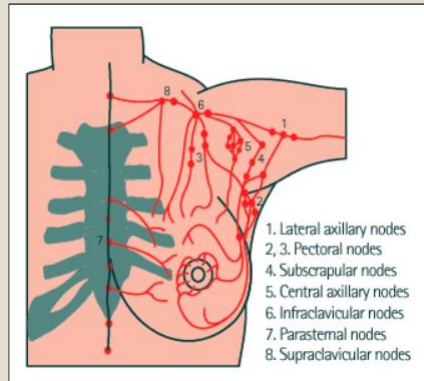


*Rates are age adjusted to the 2000 US Standard population and adjusted for reporting delay.

Source: 13 SEER Registries, National Cancer Institute.
American Cancer Society, Inc., Surveillance Research, 2015

Lymphatics of the Breast

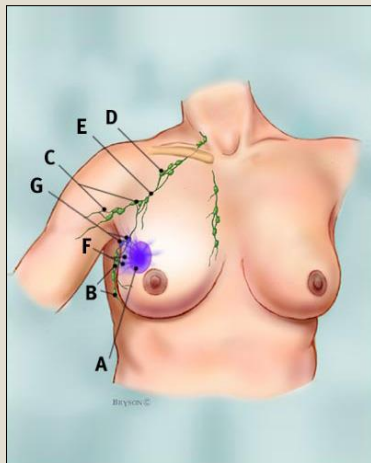
11



West Middlesex University Hospital – London - Breast Surgical Services – NHS Trust

Lymphatics of the Breast

12



- 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>

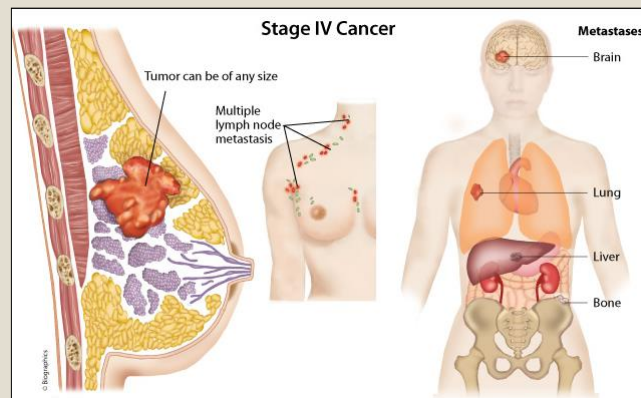
Lymphatics of the Breast

13

- **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

14

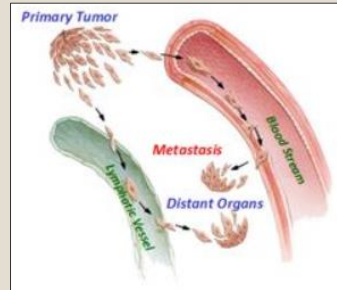


<http://mediconweb.com/cancer/recurrent-and-metastatic-breast-cancer/>

Distant Metastasis

15

- **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

16

- **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 (Oncotype DX)**
- **Metastatic Workup as Indicated**



Breast Imaging - Screening vs. Diagnostic

17

- 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

18

- **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

19

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)

Critical Breast MPH Rules

20



- Stay Tuned
- 2017 Updates
- Text Only Rules
- New MPH Database

MP Rules - Abbreviated

21

Unknown number

- M1. Unknown if single or multiple tumors = **single**

One tumor

- M2. Inflammatory carcinoma = **single**
- M3. A single tumor = **single**

Source: AFritz and Associates, LLC

MP Rules - Abbreviated

22

Multiple Tumors

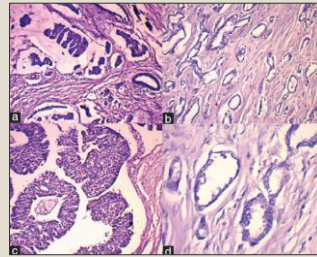
- M4. Different topography = **multiple**
- M5. Diagnosis dates > 5 years apart = **multiple**
- M6. Inflammatory carcinoma = **single**
- M7. Tumors on both sides = **multiple**
- M8. Invasive after in situ > 60 days = **multiple**
- M9. (Intra)ductal and Paget disease = **single**
- M10. Lobular and (intra)ductal = **single**
- M11. Multiple intraductal and/or ductal = **single**
- M12. Histology different = **multiple**
- M13. All other = **single**

Source: AFritz and Associates, LLC

Breast Cancer Histology

23

- **Adenocarcinoma, NOS (8140/3)**
 - Not a preferred term for breast cancer
 - Sometimes this is all the pathologist can characterize
- **Ductal or Duct Carcinoma (850_/2 or 850_/3)**
 - 80% of all invasive breast cancers
 - 85% of all non-invasive breast cancers
 - Numerous Subtypes (Table 1 d& Table 2 - MPH Rules)
 - Papillary Subtype (8503 NOT 8050)
- **Lobular Carcinoma (852_/2 or 852_/3)**
 - 10% of all invasive breast cancers
 - 15% of all non-invasive breast cancers
- **Other Breast Cancers – 10%**
 - Mucinous or colloid (848_/3) – 3-5%
 - Inflammatory (8530/3) – 1-3%
 - Paget Disease (8540/3) – 1%
 - Phyllodes Tumor (9020/_) – 1%
 - Medullary (851_/3) – 1%
 - Tubular (8211/3) – 1%
- **Ductular Carcinoma (8521/3) is NOT ductal carcinoma**
- **Many Mixed Histologies Have Special Codes – Use Them**
- **Many Mixed Histologies Have Special Rules – Use Them**



Breast Equivalent Terms, Definitions, Tables and Illustrations C500-C509 (Excludes lymphoma and leukemia M9590-9989 and Kaposi sarcoma M9140)

Table 1 – Intraductal(8500/2) and Specific Intraductal Carcinomas

Note: These are the most common specific intraductal carcinomas. This is not intended to be a complete list of all possible intraductal types. If a histology appears only on table 1, it does not mean that it is impossible for that histology to occur with a malignant behavior (3).

Column 1: Code	Column 2: Type
8201	Cribiform
8230	Solid
8401	Apocrine
8500	Intraductal, NOS
8501	Comedo
8503	Papillary
8504	Intracystic carcinoma
8507	Micropapillary/Clinging

← DCIS

Table 2 – Duct (8500/3) and Specific Duct Carcinomas

Note: These are the most common specific duct carcinomas. This is not intended to be a complete list of all possible duct types. If a histology appears only on table 2, it does not mean that it is impossible for that histology to occur with an in situ behavior (2).

Column 1: Code	Column 2: Type
8022	Pleomorphic carcinoma
8035	Carcinoma with osteoclast-like giant cells
8500	Duct, NOS
8501	Comedocarcinoma
8502	Secretory carcinoma of breast
8503	Intraductal papillary adenocarcinoma with invasion
8508	Cystic hypersecretory carcinoma

← Invasive Duct

Inflammatory Carcinoma of Breast

25

• 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

26

• 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.)

Mixed In-Situ CA and Invasive CA

27

**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**

50

Breast Equivalent Terms, Definitions, Tables and Illustrations
C500-C509
(Excludes lymphoma and leukemia M9590-9989 and Kaposi sarcoma M9140)

Table 3 – Combination Codes for Breast Cancers
Use this two-page table with rules H5, H6, H7, H8, H16, H17, H18, H19, H24, H25, H26 and H28 to select combination histology codes. Compare the terms in the diagnosis to the terms in Columns 1 and 2. If the terms match, code the case using the ICD-O-3 histology code in column 4. Use the combination codes listed in this table only when the histologies in the tumor match the histologies listed below.

Combination Codes

Column 1: Required Histology	Column 2: Combined with Histology	Column 3: Combination Term	Column 4: Code
Any combination excluding lobular and duct histologies from Tables 1 and 2	Other than ductal and lobular	Adenocarcinoma with mixed subtypes*	8255/3*
Intraductal carcinoma and	Lobular carcinoma in situ	Intraductal carcinoma and lobular carcinoma in situ	8522/2
Infiltrating duct and	Infiltrating lobular carcinoma	Infiltrating duct and lobular carcinoma	8522/3
Intraductal and two or more of the histologies in Column 2 OR two or more of the histologies in Column 2	Cribriform	Intraductal mixed with other types of carcinoma	8523/2
	Solid		
	Apocrine		
	Papillary		
	Micropapillary		
Infiltrating duct and one or more of the histologies in Column 2	Clinging	Infiltrating duct mixed with other types of carcinoma	8523/3
	Tubular		
	Apocrine		
	Mucinous		
	Secretory carcinoma		
	Intraductal papillary adenocarcinoma with invasion		
	Intracystic carcinoma, NOS		
Medullary			

Table 3 continues on the next page

Breast Equivalent Terms, Definitions, Tables and Illustrations
C500-C509
(Excludes lymphoma and leukemia M9590-9989 and Kaposi sarcoma M9140)

Column 1: Required Histology	Column 2: Combined with Histology	Column 3: Combination Term	Column 4:
Table 3 continued			
Infiltrating lobular carcinoma and	Tubular	Infiltrating lobular mixed with other types of carcinoma Note: Invasive carcinomas only. Do not use this code for in situ	8524/3
	Apocrine		
	Mucinous		
	Secretory carcinoma		
	Intraductal papillary adenocarcinoma with invasion		
	Intracystic carcinoma, NOS		
Medullary			
	Paget disease (NOS and invasive)		
Paget disease and	Infiltrating duct carcinoma (includes any specific duct type listed in Table 2)	Paget disease and infiltrating duct carcinoma	8541/3
Paget disease and	Intraductal carcinoma (includes any specific intraductal type in Table 1)	Paget disease and intraductal carcinoma	8543/3

**Rarely used for breast cancer*

Breast Cancer Staging

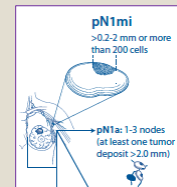
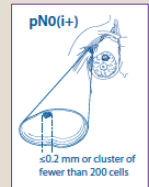
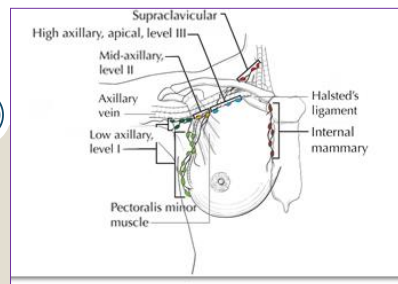
American Joint Committee on Cancer
Breast Cancer Staging 7th EDITION

Primary Tumor (T)

- T1: Tumor ≤ 20 mm
- T2: Tumor > 20 mm to ≤ 50 mm
- T3: Tumor > 50 mm
- T4: Tumor of any size with direct extension to chest wall or skin, or to the pectoralis muscle

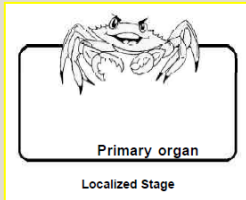
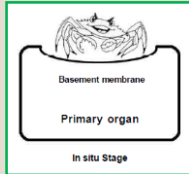
Stages (TNM)

Stage	T1 N0 M0	T2 N0 M0	T3 N0 M0	T4 N0 M0
Stage I	85%	70%	50%	20%
Stage II	10%	25%	30%	30%
Stage III	5%	5%	15%	40%
Stage IV	10%	10%	5%	10%

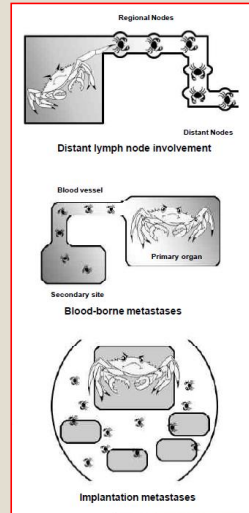
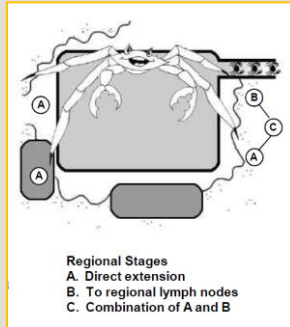


SEER Summary Stage

31



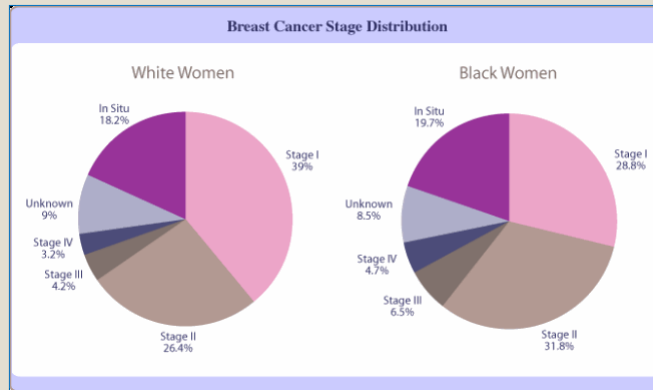
Purpose of Staging
Biochemical Tumor Markers
Molecular Tumor Markers
Genetic Mutations/Variations
Risk Stratification



Source: SEER Summary Staging Manual 2000

Breast Cancer Stage Distribution

32



<http://ww5.komen.org/images>

“c” and “p” and “yp”

33

- 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”

34

- 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”

35

- 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)

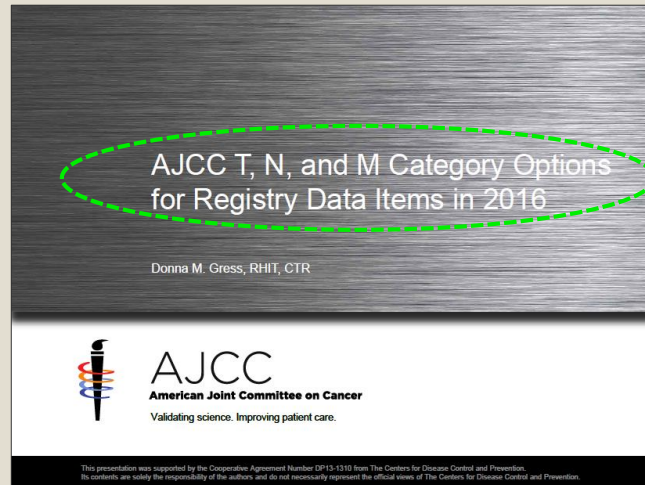
2016 Prefix Requirements / Physician Stage

36

- 2016 Requirements for “c” and “p” prefix use
 - Now must include “c” or “p” prefix for each T, N, M Category
 - New Codes for T, N, and M will be available in software soon
 - Use of Allowable Codes will be Strictly Enforced in 2016>
 - Clinical Stage now includes cT, pTis, cN and either c or pM
 - Pathologic Stage now includes pT, pN and either c or pM
 - Convert Roman Numerals (I, II, III) to Arabic (1, 2, 3)
- Physician Stage can be difficult to qualify as it may be a mixed clinical and pathologic stage, especially when the AJCC Stage is provided per history. Always check the Physician Stage to validate use of prefix and the correct T, N, and M Category Codes that best reflect the case.

AJCC Self Instruction - Updates

37



<https://cancerstaging.org/CSE/Registrar/Pages/AJCC-Curriculum.aspx>

AJCC Self Instruction - Updates

38

In Situ Neoplasm

- CIS definition
 - Has not involved any structures in primary organ that
 - Allows tumor cells to spread to regional nodes or distant sites
- CIS exception to stage group guidelines
 - Clinical stage
 - pTis cN0 cM0 clinical stage 0
 - Pathologic stage
 - pTis cN0 cM0 pathologic stage 0
- Caution for pathologic stage
 - Cannot use CIS rule in isolation
 - Must also meet pathologic stage resection criteria
 - Avoids sampling error when resection might show invasion
 - Example: TURB

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<https://cancerstaging.org/CSE/Registrar/Pages/AJCC-Curriculum.aspx>

2016 New Category Code Format - EXAMPLE

39

Table 1. TNM Clin T [940]

Code	Definition	Code	Definition	Code	Definition
(blank)	Not recorded	c1B	cT1b	c3	cT3
cX	cTX	c1B1	cT1b1	c3A	cT3a
c0	cT0	c1B2	cT1b2	c3B	cT3b
pA	pT _a	c1C	cT1c	c3C	cT3c
pIS	pT _{is}	c1D	cT1d	c3D	cT3d
pISU	pT _{ispu}	c2	cT2	c4	cT4
pISD	pT _{ispd}	c2A	cT2a	c4A	cT4a
c1M _r	cT1m _r , cT1 mic	c2A1	cT2a1	c4B	cT4b
c1	cT1	c2A2	cT2a2	c4C	cT4c
c1A	cT1a	c2B	cT2b	c4D	cT4d
c1A1	cT1a1	c2C	cT2c	c4E	cT4e
c1A2	cT1a2	c2D	cT2d	88	Not applicable

Deleted codes: A [T_a], IS [T_{is}], ISPU [T_{ispu}], ISPD [T_{ispd}]

Added codes: pA [pT_a], pIS [pT_{is}], pISU [pT_{ispu}], pISD [pT_{ispd}]

NAACCR 2016 Implementation Guidelines (NAACCRv16)


AJCC Self Instruction - Updates

40

Explaining Blanks and X,
Ambiguous Terminology and
Support for AJCC Staging

updated Dec 2015

Donna M. Gress, RHIT, CTR

 **AJCC**
American Joint Committee on Cancer
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This presentation was supported by the Cooperative Agreement Number GP13-1210 from The Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of The Centers for Disease Control and Prevention.

<https://cancerstaging.org/CSE/Registrar/Pages/AJCC-Curriculum.aspx>

T Category – tumor size and extension

41

- 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

42

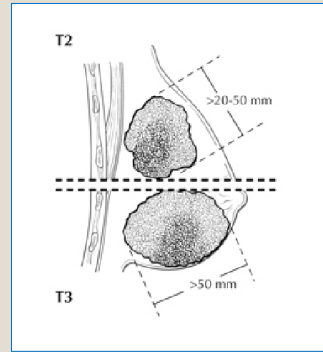
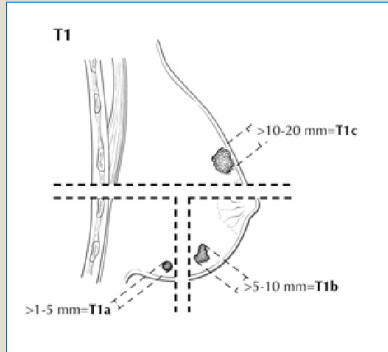
- **Non-Invasive Includes:**
 - Ductal Carcinoma In Situ (DCIS)
 - Lobular Carcinoma In Situ (LCIS)
 - Paget's Disease of Nipple with No Associated In Situ or Invasive Cancer (ductal or lobular)
- **Minimally Invasive Includes:**
 - Tumor is = or < 1mm in Greatest Dimension
- **Invasive Includes:**
 - 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

Tumor Size and “T” in TNM

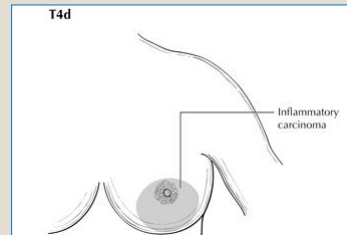
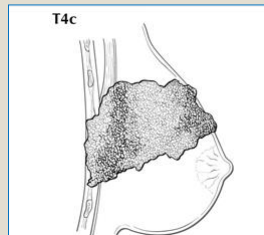
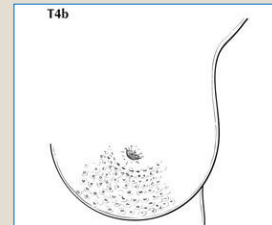
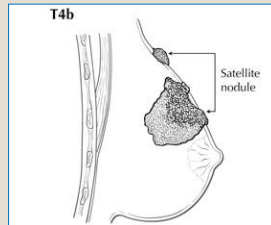
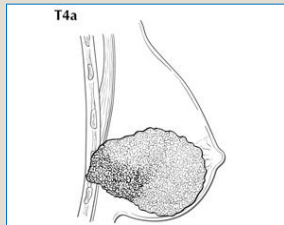
43



ACS and AJCC Breast Cancer Staging Poster

Primary Tumor Extension and “T” in TNM

44



AJCC Cancer Staging Atlas – Chapter 32

“T” Codes and Description

45

Clinical and Pathologic “T” Codes and Description - Identical

TX	Primary tumor cannot be assessed
T0	No evidence of primary tumor
Tis	Carcinoma in situ
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 or less 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
T4	Tumor of any size with direct extension to the chest wall and/or to the skin (ulceration or skin nodules).
<i>Note: Invasion of the dermis alone does not qualify as T4</i>	
T4a	Extension to the chest wall, not including only pectoralis muscle adherence/invasion
T4b	Ulceration and/or ipsilateral satellite nodules and/or edema (including peau d'orange) of the skin, which do not meet the criteria for inflammatory carcinoma
T4c	Both T4a and T4b
T4d	Inflammatory carcinoma

Clinical and Pathologic “T” Codes and Description - Identical

2016 Valid Codes for “T” Category

46

Table 1. TNM Clin T [940]

Code	Definition	Code	Definition	Code	Definition
(blank)	Not recorded	c1B	cT1b	c3	cT3
cX	cTX	c1B1	cT1b1	c3A	cT3a
c0	cT0	c1B2	cT1b2	c3B	cT3b
pA	pTa	c1C	cT1c	c3C	cT3c
pIS	pTis	c1D	cT1d	c3D	cT3d
pISU	pTispu	c2	cT2	c4	cT4
pISD	pTispd	c2A	cT2a	c4A	cT4a
c1MI	cT1mi, cT1 mic	c2A1	cT2a1	c4B	cT4b
c1	cT1	c2A2	cT2a2	c4C	cT4c
c1A	cT1a	c2B	cT2b	c4D	cT4d
c1A1	cT1a1	c2C	cT2c	c4E	cT4e
c1A2	cT1a2	c2D	cT2d	88	Not applicable

Deleted codes: A [Ta], IS [Tis], ISPU [Tispu], ISPD [Tispd]

Added codes: pA [pTa], pIS [pTis], pISU [pTispu], pISD [pTispd]

2016 Valid Codes for "T" Category

47

2016 Valid Codes for "T" Category

48

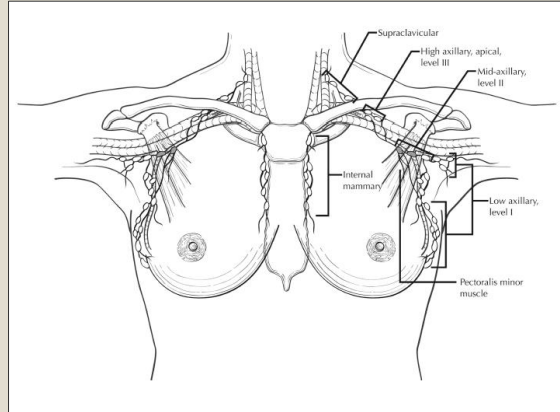
Table 2. TNM Path T [880]

Code	Definition	Code	Definition	Code	Definition
(blank)	Not recorded	p1B	pT1b	p3	pT3
pX	pTX	p1B1	pT1b1	p3A	pT3a
p0	pT0	p1B2	pT1b2	p3B	pT3b
pA	pTa	p1C	pT1c	p3C	pT3c
pIS	pTis	p1D	pT1d	p3D	pT3d
pISU	pTispu	p2	pT2	p4	pT4
pISD	pTispd	p2A	pT2a	p4A	pT4a
p1MI	pT1mi, pT1 mic	p2A1	pT2a1	p4B	pT4b
p1	pT1	p2A2	pT2a2	p4C	pT4c
p1A	pT1a	p2B	pT2b	p4D	pT4d
p1A1	pT1a1	p2C	pT2c	p4E	pT4e
p1A2	pT1a2	p2D	pT2d	88	Not applicable

Added codes: pISU [pTispu], pISD [pTispd]

N Category - Regional Lymph Nodes

49



Source: See AJCC Breast Cancer Staging Form Sample

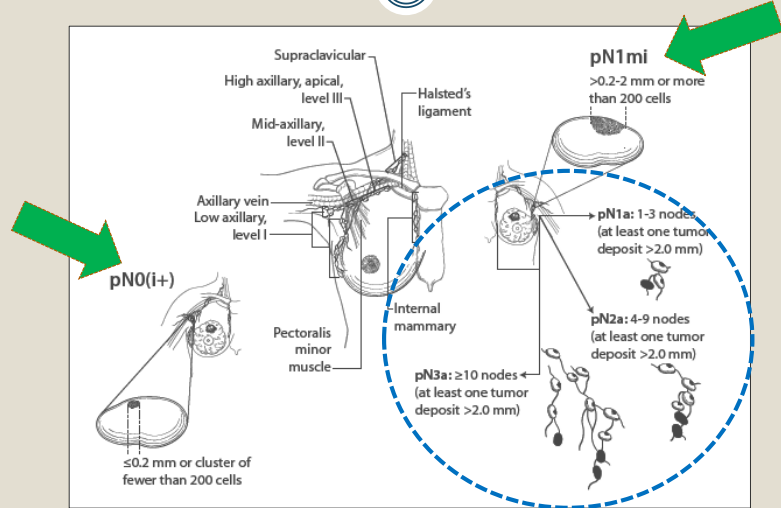
Lymphatics of the Breast

50

- **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

Breast Lymph Nodes and "N" in TNM

51



ACS and AJCC Breast Cancer Staging Poster

"N" Codes and Description

52

Regional Lymph Nodes (N)

Clinical

NX	Regional lymph nodes cannot be assessed (e.g., previously removed)
N0	No regional lymph node metastasis
N1	Metastases to movable ipsilateral level I, II axillary lymph node(s)
N2	Metastases in ipsilateral level I, II axillary lymph nodes that are clinically fixed or matted, or in clinically detected* ipsilateral internal mammary nodes in the absence of clinically evident axillary lymph node metastases
N2a	Metastases in ipsilateral level I, II axillary lymph nodes fixed to one another (matted) or to other structures
N2b	Metastases only in clinically detected* ipsilateral internal mammary nodes and in the absence of clinically evident level I, II axillary lymph node metastases
N3	Metastases in ipsilateral infraclavicular (level III axillary) lymph node(s) with or without level I, II axillary lymph node involvement, or in clinically detected* ipsilateral internal mammary lymph node(s) with clinically evident level I, II axillary lymph node metastases; or metastases in ipsilateral supraclavicular lymph node(s) with or without axillary or internal mammary lymph node involvement
N3a	Metastasis in ipsilateral infraclavicular lymph node(s)
N3b	Metastasis in ipsilateral internal mammary lymph node(s) and axillary lymph node(s)
N3c	Metastasis in ipsilateral supraclavicular lymph node(s)

*Note: Clinically detected is defined as detected by imaging studies (excluding lymphoscintigraphy) or by clinical examination and having characteristics highly suspicious for malignancy or a presumed pathologic macrometastasis based on fine needle aspiration.

Notes

* "Clinically detected" is defined as detected by imaging studies (excluding lymphoscintigraphy) or by clinical examination and having characteristics highly suspicious for malignancy or a presumed pathologic macrometastasis based on fine needle aspiration biopsy with cytologic examination. Confirmation of clinically detected metastatic disease by fine needle aspiration without excision biopsy is designated with an (i) suffix, for example, cN3a(i). Excisional biopsy of a lymph node or biopsy of a sentinel node, in the absence of assignment of a pT, is classified as a clinical N, for example, cN1. Information regarding the confirmation of the nodal status will be designated in site-specific factors as clinical, fine needle aspiration, core biopsy, or sentinel lymph node biopsy. Pathologic classification (pN) is used for excision or sentinel lymph node biopsy only in conjunction with a pathologic T assignment.

“N” Codes and Description

53

Pathologic (pN)*

pNX Regional lymph nodes cannot be assessed (e.g., previously removed, or not removed for pathologic study)

pN0 No regional lymph node metastasis histologically

Note: Isolated tumor cell clusters (ITC) are defined as small clusters of cells not greater than 0.2 mm, or single tumor cells, or a cluster of fewer than 200 cells in a single histologic cross-section. ITCs may be detected by routine histology or by immunohistochemical (IHC) methods. Nodes containing only ITCs are excluded from the total positive node count for purposes of N classification but should be included in the total number of nodes evaluated.

pN0(i-) No regional lymph node metastasis histologically, negative IHC

pN0(i+) Malignant cells in regional lymph node(s) no greater than 0.2 mm (detected by H&E or IHC including ITC)

pN0(mol-) No regional lymph node metastases histologically, negative molecular findings (RT-PCR)

pN0(mol+) Positive molecular findings (RT-PCR)** but no regional lymph node metastases detected by histology or IHC

* Classification is based on axillary lymph node dissection with or without sentinel lymph node biopsy. Classification based solely on sentinel lymph node biopsy without subsequent axillary lymph node dissection is designated (sn) for “sentinel node,” for example, pN0(sn).

** RT-PCR: reverse transcriptase/polymerase chain reaction.

“N” Codes and Description

54

Pathologic (pN) (continued)

pN1	Micrometastases; or metastases in 1–3 axillary lymph nodes; and/or in internal mammary nodes with metastases detected by sentinel lymph node biopsy but not clinically detected***
pN1mi	Micrometastases (greater than 0.2 mm and/or more than 200 cells, but none greater than 2.0 mm)
pN1a	Metastases in 1–3 axillary lymph nodes, at least one metastasis greater than 2.0 mm
pN1b	Metastases in internal mammary nodes with micrometastases or macrometastases detected by sentinel lymph node biopsy but not clinically detected***
pN1c	Metastases in 1–3 axillary lymph nodes and in internal mammary lymph nodes with micrometastases or macrometastases detected by sentinel lymph node biopsy but not clinically detected
pN2	Metastases in 4–9 axillary lymph nodes; or in clinically detected**** internal mammary lymph nodes in the absence of axillary lymph node metastases
pN2a	Metastases in 4–9 axillary lymph nodes (at least one tumor deposit greater than 2.0 mm)
pN2b	Metastases in clinically detected**** internal mammary lymph nodes in the absence of axillary lymph node metastases

pN3 Metastases in ten or more axillary lymph nodes; or in infraclavicular (level III axillary) lymph nodes; or in clinically detected**** ipsilateral internal mammary lymph nodes in the presence of one or more positive level I, II axillary lymph nodes; or in more than three axillary lymph nodes and in internal mammary lymph nodes with micrometastases or macrometastases detected by sentinel lymph node biopsy but not clinically detected****; or in ipsilateral supraclavicular lymph nodes

pN3a Metastases in ten or more axillary lymph nodes (at least one tumor deposit greater than 2.0 mm); or metastases to the infraclavicular (level III axillary lymph) nodes

pN3b Metastases in clinically detected**** ipsilateral internal mammary lymph nodes in the presence of one or more positive axillary lymph nodes; or in more than three axillary lymph nodes and in internal mammary lymph nodes with micrometastases or macrometastases detected by sentinel lymph node biopsy but not clinically detected****

pN3c Metastasis in ipsilateral supraclavicular lymph nodes

*** “Not clinically detected” is defined as not detected by imaging studies (excluding lymphoscintigraphy) or not detected by clinical examination.

**** “Clinically detected” is defined as detected by imaging studies (excluding lymphoscintigraphy) or by clinical examination and having characteristics highly suspicious for malignancy or a presumed pathologic macrometastasis based on fine needle aspiration biopsy with cytologic examination.

2016 Valid Codes for "N" Category

55

Table 3. TNM Clin N [950]

Code	Definition	Code	Definition	Code	Definition
(blank)	Not recorded	c0A	cN0a	c2B	cN2b
cX	cNX	c0B	cN0b	c2C	cN2c
c0	cN0	c1	cN1	c3	cN3
c0I-	cN0I-	c1A	cN1a	c3A	cN3a
c0I+	cN0I+	c1B	cN1b	c3B	cN3b
c0M-	cN0m-	c1C	cN1c	c3C	cN3c
c0M+	cN0m+	c2	cN2	c4	cN4
c1MI	cN1mi	c2A	cN2a	88	Not applicable

NAACCR 2016 Implementation Guidelines (NAACCRv16)

2016 Valid Codes for "N" Category

56

Demographic Address DX Case Dx CS Text Text 2 Treatment Follow-Up QC Notes Curr Notes All Notes

Site / Histology / Discriminator Information
 Primary Site: C501 Histology: 8500 Discriminator: 988 Schema Number: 106 Breast

Collaborative Staging
 Regional Nodes Positive: 98 Regional Nodes Examined: 100

Tumor Size: 1002 Extension: 100 TS/Ext-Eval: 3 Lymph Nodes: 000 Reg Nodes Eval: 0 Mets at DX: 00 Mets Eval: 0

Site Specific Factors:
 1: 999 2: 999 3: 000 4: 000 5: 000 6: 987
 7: 999 8: 999 9: 999 10: 988 11: 999 12: 988
 13: 999 14: 999 15: 999 16: 999 17: 988 18: 988
 19: 988 20: 988 21: 999 22: 999 23: 999 24: 988

Lymph Vascular Invasion: 9-Unknown/Indeterminate CS Input Version First: 020550 CS Input Version Current: 020550 CS Version Derived: 020550

SEER Summary Stage 2000: 1-Local SEER Summary Stage 1977: 1-Local
 FCDS Stage at First Contact 2000: Select FCDS Stage at First Contact 1977: Select

Derived TNM 6th
 T Desc: p T: 12 T1a
 N Desc: c N: 00 N0
 M Desc: c M: 00 M0
 AJCC Stage: 10 I

Derived TNM 7th
 T Desc: p T: 120 T1a
 N Desc: c N: 000 N0
 M Desc: c M: 000 M0
 AJCC Stage: 120 IA

Clinical TNM
 T: Stage Group:
 N: Descriptor:
 M: Staged By:
 Edition Nbr:

2016 Valid Codes for "N" Category

57

Table 4. TNM Path N [890]

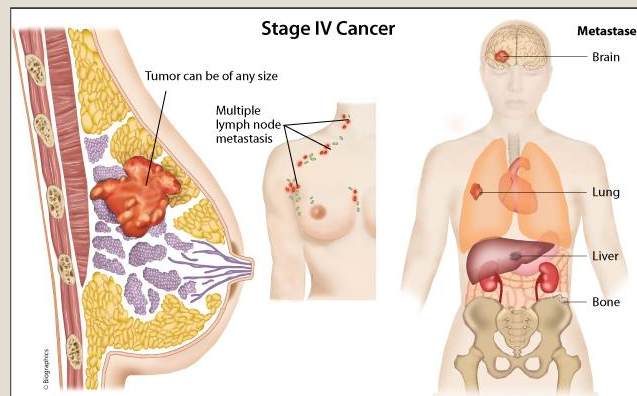
Code	Definition	Code	Definition	Code	Definition
(blank)	Not recorded	p0A	pN0a	p2C	pN2c
pX	pNX	p0B	pN0b	p3	pN3
c0	cN0	p1	pN1	p3A	pN3a
p0	pN0	p1A	pN1a	p3B	pN3b
p0I-	pN0i-	p1B	pN1b	p3C	pN3c
p0I+	pN0i+	p1C	pN1c	p4	pN4
p0M-	pN0m-	p2	pN2	88	Not applicable
p0M+	pN0m+	p2A	pN2a		
p1MI	pN1mi	p2B	pN2b		

Added code: of c0 [cN0]

NAACCR 2016 Implementation Guidelines (NAACCRv16)

M Category - Metastasis

58



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

“M” Codes and Description

59

Distant Metastasis (M)

- M0** No clinical or radiographic evidence of distant metastases
- cM0(i+)** No clinical or radiographic evidence of distant metastases, but deposits of molecularly or microscopically detected tumor cells in circulating blood, bone marrow, or other nonregional nodal tissue that are no larger than 0.2 mm in a patient without symptoms or signs of metastases
- M1** Distant detectable metastases as determined by classic clinical and radiographic means and/or histologically proven larger than 0.2 mm

2016 Valid Codes for “M” Category

60

Table 5. TNM Clin M [960]

Code	Definition	Code	Definition
(blank)	Not recorded	pM1	pM1
c0	cM0	p1A	pM1a
c0i+	cM0(i+)	p1B	pM1b
c1	cM1	p1C	pM1c
c1A	cM1a	p1D	pM1d
c1B	cM1b	p1E	pM1e
c1C	cM1c	88	Not applicable
c1D	cM1d		
c1E	cM1e		

Added codes: p1, p1A, p1B, p1C, p1D, and p1E [pM1, pM1a, pM1b, pM1c, pM1d, pM1e, respectively]

Table 6. TNM Path M [900]

Code	Definition	Code	Definition	Code	Definition
(blank)	Not recorded	p1C	pM1c	c1B	cM1b
c0	cM0	p1D	pM1d	c1C	cM1c
p1	pM1	p1E	pM1e	c1D	cM1d
p1A	pM1a	c1A	cM1a	c1E	cM1e
p1B	pM1b	p2B	pN2b	88	Not applicable
p1M1	pN1m1				

Deleted code: 0 [M0]

Added codes: c0 [cM0], c0i+ [cM0(i+)], c1 [cM1], c1A, c1B, c1C, c1D, and c1E [cM1a, cM1b, cM1c, cM1d, cM1e, respectively]

Anatomic Stage/Prognostic Group


61

NOTE: No Biologic or Molecular SSF Results Change the Stage Group

ANATOMIC STAGE/PROGNOSTIC GROUPS			
Stage 0	Tis	N0	M0
Stage IA	T1*	N0	M0
Stage IB	T0	N1mi	M0
	T1*	N1mi	M0
Stage IIA	T0	N1**	M0
	T1*	N1**	M0
	T2	N0	M0
Stage IIB	T2	N1	M0
	T3	N0	M0
Stage IIIA	T0	N2	M0
	T1*	N2	M0
	T2	N2	M0
	T3	N1	M0
	T3	N2	M0
Stage IIIB	T4	N0	M0
	T4	N1	M0
	T4	N2	M0
Stage IIIC	Any T	N3	M0
Stage IV	Any T	Any N	M1

Text Documentation

62



INFORMATIONAL
A Guide to Entries

BREAST

BREAST

PHYSICAL EXAM/HISTORY

LABS

DIAGNOSTIC PROCEDURES

X-RAYS/SCOPES/SCANS

PATHOLOGY

PRIMARY SITE

HISTOLOGY

TREATMENT

BREAST

RESOURCES

BREAST

GENERAL NOTES

Source: NCRA Informational Abstracts – Improving Text

Staging Practice

63



Case 1 – Case Vignette

64

- **HISTORY:** 62 year old Asian female admitted for biopsy of 1cm abnormality noted on mammography. No mass felt in the left breast, left axilla WNL.
- **CT CHEST:** no abnormalities noted
- **MAMMOGRAPHY:** 1cm abnormality in left UOQ, possible malignancy. Recommend biopsy.
- **PATHOLOGY Excision:** Left UOQ Breast biopsy – low grade DCIS (solid, cribriform and papillary subtypes) 6mm area of involvement . ER/PR pos, HER2 not stated
- **PATHOLOGY Wide Excision and SNL Biopsy:** No residual carcinoma. 1 sentinel lymph nodes negative for carcinoma 0/1. IHC stain for Cytokeratin is negative.

Case 1 – Answer & Rationale

65

Practice Case #1			
C50.4 – Left Breast, Upper Outer Quadrant			
8523/21 – Low Grade Intraductal Carcinoma with Mixed Subtypes (Non-invasive)			
Clinical TNM AJCC Stage Group	<u>pTis</u> cN0 cM0	c0	<p>Clinical Stage for an In-Situ Neoplasm without ANY area(s) of invasion OR ANY area(s) of <u>microinvasion</u>: Tis (and T1mi) - can ONLY be diagnosed microscopically. You cannot assign a clinical Tis. But, you can use <u>pTis</u> for in-situ only.</p> <p>N0 and M0 based on 2 factors, non-invasive only and physical exam negative in axilla (in-situ neoplasm may not get even a SNL biopsy). NOTE: Neither blank or X is valid because of stage of disease (in situ) and workup can include but does not require imaging or physical exam. If neither physical exam nor imaging was performed then N still should be assigned N0 due to Tis. MX not allowed</p> <p>M0 based on negative CT chest and abdomen</p> <p>Clinical Stage <u>pTis</u> cN0 cM0 // Clinical Stage Group 0</p>
Pathologic TNM AJCC Stage Group	<u>pTis</u> pN0(i-) cM0	p0	<p>Pathologic staging is based on histologic review of resection of primary site and regional lymph nodes specimen. Pathologic In-Situ neoplasm only. SLN negative on IHC. No pathologic confirmation of any metastasis - so, you take the clinical M0.</p> <p>Pathologic Stage <u>pTis</u> pN0(i-) cM0 // Path Stage Group 0</p>
SEER Summary Stage 2000		0 Insitu	In Situ Only

Case 2 – Case Vignette

66

- **HISTORY:** 65 year old black female admitted for biopsy and resection of 2cm mass noted on mammography. Palpable mass in UOQ right breast, right axilla WNL.
- **CT CHEST:** no abnormalities noted
- **MAMMOGRAPHY:** 2cm stellate mass in right UOQ, suspicious for malignancy. Recommend biopsy.
- **PATHOLOGY Excision:** Right UOQ Breast biopsy – infiltrating duct carcinoma, 1.6cm in greatest dimension, Nottingham Grade 2. ER/PR neg, HER2 +
- **PATHOLOGY Wide Excision and SNL Biopsy:** No residual carcinoma. 2 sentinel lymph nodes negative for carcinoma 0/2. IHC stain for Cytokeratin is positive.

Case 2 – Answer & Rationale

67

Practice Case #2			
C50.4 – Right Breast, Upper Outer Quadrant			
8500/32 – Infiltrating Duct Carcinoma, Nottingham Grade 2 = Grade 2 per 2014 Grade Coding Instructions			
Clinical TNM AJCC Stage Group	cT1c cN0 cM0	<u>clA</u>	Clinical Tumor Size = 2cm from imaging = cT1c. Clinical Nodes = none noted on physical exam = cN0. Clinical Mets = none CT chest = cM0 MX not allowed Clinical Stage = cT1c cN0 cM0 // clinical Stage Group IA
Pathologic TNM AJCC Stage Group	pT1c pN0(i+) cM0	<u>pIA</u>	Pathologic staging is based on histologic review of resection of primary site and regional lymph nodes specimen. Pathologic Tumor size = 1.6cm = pT1c. Pathologic Lymph Nodes noted only with positive IHC (Cytokeratin Stain) for Isolated Tumor Cells or ITCs = pN0(i+). ITC + lymph nodes are still counted as N0. DO NOT COUNT ITCs as + LN. No pathologic confirmation of any metastasis - so, you take the clinical M0. Pathologic Stage pT1c pN0(i+) cM0 // Path Stage Grp IA
SEER Summary Stage 2000		1 localized	Localized

Case 3 – Case Vignette

68

- **HISTORY:** 57 year-old Hispanic female with 2.5cm mass at 10:00 in right breast and prominent axillary node noted on screening mammography and on PE.
- **CT CHEST:** few small (<1cm) nonspecific hilar lymph nodes noted in chest. Exam otherwise negative.
- **PROCEDURE:** Lumpectomy, right breast with core biopsy of sentinel axillary lymph nodes (2) – Level I
- **PATHOLOGY:** Moderately differentiated infiltrating duct carcinoma with extensive associated DCIS, high nuclear grade; cribriform, papillary and solid types. Invasive component 1.5cm in greatest linear dimension, Nottingham Grade 2 (3+2+1=6), core biopsies (3) of suspected axillary lymph node showing tumor present in all core fragments (3/3).

Case 3 – Answer & Rationale

69

Practice Case #3			
C50.4 – Right Breast, Upper Outer Quadrant (10:00 position)			
8500/32 – Infiltrating Duct Carcinoma NOTE: Do not use any terms describing the in-situ components or combo code			
Clinical TNM AJCC Stage Group	cT2 cN1 cM0	cIIIB	Clinical Tumor Size = 2.5cm from imaging and physical exam = cT2. Clinical Nodes = prominent axillary node is clinically positive lymph node warranting core needle biopsy to rule out mets = cN1. Clinical Mets = nonspecific <1cm hilar nodes are not positive = cM0 MX not allowed, M0 based on CT chest Clinical Stage cT2 cN1 cM0 // Clinical Stage Group IIB
Pathologic TNM AJCC Stage Group	pT1c pN1a cM0	oIIIA	Pathologic staging is based on histologic review of resection of primary site and regional lymph nodes specimen. Pathologic Tumor Size = 1.5cm (invasive component only), Pathologic Lymph Nodes = N1a (you can still code N1a even though a complete axillary node dissection was not performed because the node was prominent (clinically positive) then proven to be metastatic with 3 core biopsies of the lymph node. Not ITCs or Micromets - so is Macromets for LN noted. No pathologic confirmation of any metastasis - so, you take the clinical M0. Pathologic Stage pT1 pN1a cM0 // Path Stage Group IIA
SEER Summary Stage 2000		3 Regional Lymph Nodes Only	Regional Lymph Nodes, only

Case 4 – Case Vignette

70

- **HISTORY:** 61 yr old white female, lifelong smoker, with multiple medical problems including recent suspicious result on routine screening mammography. PE negative.
- **CT CHEST:** Negative
- **STEREOTACTIC NEEDLE BIOPSY UIQ LEFT BREAST:** Infiltrating duct carcinoma, Nottingham Grade 1. DCIS, low grade (less than 0.1cm focus)
- **SIMPLE MASTECTOMY:** Infiltrating duct carcinoma, Nottingham Grade 2 (1.3cm) arising from an encapsulated (intracystic) papillary carcinoma, 0.9 x 0.7cm, DCIS, intermediate grade (1.0 x 0.7cm), solid type. All margins negative. Hormone receptor and immunohistochemical stains ordered and results will be reported in supplemental report.

Case 4 – Answer & Rationale

71

Practice Case #4			
C50.2 – Left Breast, Upper Inner Quadrant			
8504/32 – Infiltrating Duct Carcinoma arising in Encapsulated Intracystic Papillary Carcinoma, Invasive, Grade 2			
Clinical TNM AJCC Stage Group	cTX cN0 cM0	c99	No Clinical Tumor Size is noted on mammogram or physical exam, cTX because there was imaging and physical exam performed but cannot be assessed because report not available (not cTblank). N based on no mention of suspicious or prominent lymph nodes in axilla on physical exam or imaging. MX not allowed, M0 based on CT chest. Clinical Stage cTX cN0 cM0 // Clinical Stage Group - 99
Pathologic TNM AJCC Stage Group	pT1c cN0 cM0	pIA	Pathologic staging is based on histologic review of resection of primary site and regional lymph nodes specimen. Pathologic Tumor Size = 1.3cm, Pathologic Lymph Nodes = cN0 (you can use the clinical N0 when Tis or T1 tumor size - not clear in instructions but is allowed and valid. Otherwise, this case would be unstaged when it is really just a stage 1 cancer. No pathologic confirmation of any metastasis - so, you take the clinical M0. Pathologic Stage pT1c cN0 cM0 // Path Stage Group IA
SEER Summary Stage 2000		1 Localized	Localized

Case 5 – Case Vignette

72

- **HISTORY:** 57 year old obese white female with hard left subareolar solid mass noted by patient and confirmed on imaging. Mass measures 3 x 4 x 2cm. PE shows no enlarged lymph nodes in left axilla but one prominent supraclavicular node is noted on physical examination.
- **FNA Left Breast Mass:** adenocarcinoma
- **Left Modified Mastectomy:** Left Breast with a 5cm area of intraductal carcinoma (solid, cribriform and papillary subtypes) surrounding a 3.8cm area of invasive ductal carcinoma noted. 4 of 6 Level I nodes +, 1/8 Level II nodes +. Supraclavicular node - core bx – positive.
- **ER/PR negative, HER2 negative (triple negative)**

Case 5 – Answer & Rationale

73

Practice Case #5			
C50.1 – Left Breast, <u>Subareolar</u> = Central Breast (NOT LOWER BREAST – COMMON ERROR)			
8500/39 – Infiltrating Duct Carcinoma NOTE: Do not use any terms describing the in-situ components or a combo code			
Clinical TNM AJCC Stage Group	cT2 cN3 cM0	<u>cIIIC</u>	Clinical Tumor Size based on physical exam where greatest tumor size dimension = 4cm, N3 based on physical exam with clinically positive supraclavicular (Level III) lymph node without axillary nodes noted (do not use N3c because you lose the clinically negative axillary nodes, MX not allowed so assign M0 unless otherwise indicated. Clinical Stage cT2 cN3 cM0 // Clinical Stage Group IIIC
Pathologic TNM AJCC Stage Group	pT2 pN3c cM0	<u>pIIIC</u>	Pathologic staging is based on histologic review of resection of primary site and regional lymph nodes specimen. Pathologic Tumor size = 3.8cm (invasive size only), N3c because we have positive confirmation of single Level III supraclavicular lymph node in presence of + axillary nodes. No pathologic confirmation of any metastasis - so, you take the clinical M0. Pathologic Stage pT2 pN3c cM0 // Path Stage Group IIIC
SEER Summary Stage 2000		7 Distant Lymph Nodes	Supraclavicular lymph nodes are counted as Distant Lymph Nodes in SS2000.

Case 6 – Case Vignette

74

- **HISTORY:** 49 yr old white female, non-smoker, with large central breast mass on right and multiple suspicious large nodes in right axilla. Patient complains of redness, skin thickening and edema over past 6-12 months, still evident. Recommend pre-surgical treatment.
- **CT CHEST:** Negative
- **BONE SCAN:** Abn uptake L4-L5 concerning for metastatic disease
- **PLAIN FILM XRAY L-SPINE:** osseous mets L4-L5
- **FNA BREAST MASS:** adenocarcinoma
- **RIGHT MODIFIED RADICAL MASTECTOMY:** poorly differentiated infiltrating duct carcinoma. Tumor extends to pectoralis muscle and deep margin with involvement of dermal lymphatics. 10/15 axillary lymph nodes involved with largest node measuring 2.8cm in size.
- **Biopsy L4 –** metastatic adenocarcinoma c/w breast primary
- **ER/PR +, HER2 –**
- **Patient refused pre-operative therapy – mastectomy only**

Case 6 – Answer & Rationale

75

Practice Case #6			
C50.1 – Right Breast, Central			
8530/33 – Inflammatory Carcinoma(DX includes path-proven dermal lymphatic invasion PLUS clinical criteria), Grade 3			
Clinical TNM AJCC Stage Group	cT4d cN1 cM1	cIV	Clinical Tumor Size based on physical exam and patient history with inflammatory carcinoma clinically and dermal lymphatic involvement proven. N based on physical exam with multiple suspicious large nodes in axilla. M1 is based on bone scan and follow-up plain film confirmation of L4-L5 involvement. Clinical Stage cT4d cN1 cM1 // Clinical Stage Group IV
Pathologic TNM AJCC Stage Group	pT4d pN3a pM1	pIV	Pathologic staging is based on histologic review of resection of primary site and regional lymph nodes specimen and any suspected histological evidence of metastasis, N3a based on 10+ LN in axilla largest 2.8cm size. Pathologic M1 because bone mets were confirmed with biopsy. Pathologic Stage pT4d pN3a pM1 //Path Stage Group IV
SEER Summary Stage 2000		7 Distant Bone Mets	Bone Mets

Questions

76

