SEER Site-Specific Coding Guidelines
BREAST
C500–C509

C500 **Nipple** (areolar)
Paget disease without underlying tumor

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

C502 **Upper inner quadrant** (UIQ) of breast
Superior medial
Upper medial
Superior inner

C503 **Lower inner quadrant** (LIQ) of breast
Inferior medial
Lower medial
Inferior inner

C504 **Upper outer quadrant** (UOQ) of breast
Superior lateral
Superior outer
Upper lateral

C505 **Lower outer quadrant** (LOQ) of breast
Inferior lateral
Inferior outer
Lower lateral

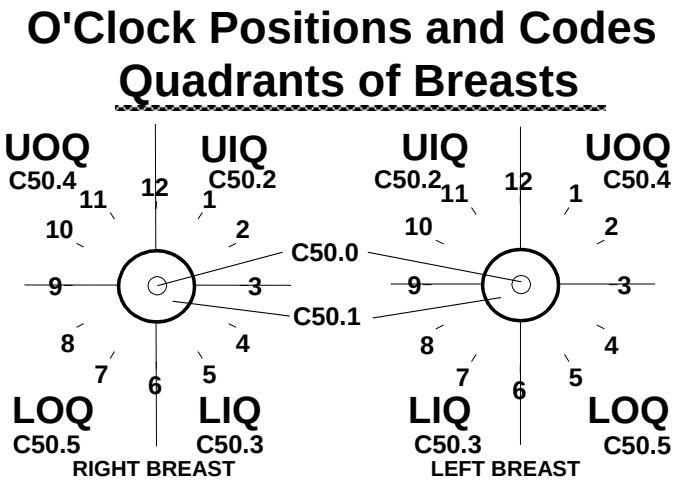
C506 **Axillary tail** of breast
Tail of breast, NOS
Tail of Spence

C508 **Overlapping** lesion of breast
Inferior breast, NOS
Inner breast, NOS
Lateral breast, NOS
Lower breast, NOS
Medial breast, NOS
Midline breast NOS
Outer breast NOS
Superior breast, NOS
Upper breast, NOS
3:00, 6:00, 9:00, 12:00 o'clock

C509 **Breast, NOS**
Entire breast
Multiple tumors in different subsites within breast

Inflammatory without palpable mass
¾ or more of breast involved with tumor
Diffuse (tumor size 998)

The position of the tumor in the breast may be described as the positions on a clock



Priority Order for Coding Subsites
Use the information from reports in the following priority order to code a subsite when the medical record contains conflicting information:
1 Pathology report
2 Operative report
3 Physical examination
4 Mammogram, ultrasound
If the pathology proves invasive tumor in one subsite and in situ tumor in all other involved subsites, code to the subsite involved with invasive tumor

When to Use Subsites 8 and 9
A. Code the primary site to C50**8** when there is a single tumor that overlaps two or more subsites, and the subsite in which the tumor originated cannot be determined.
B. Code the primary site to C50**8** when there is a **single tumor** located at the **12, 3, 6, or 9 o'clock** position on the breast
C. Code the primary site to C509 when there are multiple tumors (two or more) in at least two quadrants of the breast.

Priority Rules for Grading Breast Cancer
Code the tumor grade using the following priority order:
1. **Bloom-Richardson (Nottingham) scores** 3-9 converted to grade (see conversion table on page 372)
2. **Bloom Richardson grade** (low, intermediate, high)
3. Nuclear grade only
4. Terminology

5. Differentiation (well differentiated, moderately differentiated, etc)
6. Histologic grade
7. Grade i, grade ii, grade iii, grade iv

Bloom-Richardson (BR)

BR may also be called: modified Bloom-Richardson, Scarff-Bloom-Richardson, SBR grading, BR grading, Elston-Ellis modification of Bloom Richardson score, the Nottingham modification of Bloom Richardson score, Nottingham-Tenovus, or Nottingham grade.

BR may be expressed in scores (range 3-9)
The score is based on three morphologic features of "invasive no-special-type" breast cancers (degree of tubule formation/histologic grade, mitotic activity, nuclear pleomorphism of tumor cells).

BR may be expressed as a **grade** (low, intermediate, high). BR grade is derived from the BR score.

Use the table below to convert Bloom-Richardson (Nottingham) Scores; Bloom-Richardson Grade; Nuclear Grade; Terminology; and Histologic Grade to the appropriate code. (Note that the conversion of low, intermediate, and high is different from the conversion used for all other tumors)

Bloom-Richardson (Nottingham) Combined Scores	Bloom-Richardson Grade	Nuclear Grade	Terminology	Histologic Grade	Code
3 - 5 points	Low grade	1/3, 1/2	Well differentiated	I/III or 1/3	1
6, 7 points	Intermediate grade	2/3	Moderately differentiated	II/III or 2/3	2
8, 9 points	High grade	2/2, 3/3	Poorly differentiated	III/III or 3/3	3

Laterality
Laterality must be coded for all subsites.

Size of Primary Tumor Coding Guidelines
Purely Invasive or Purely Insitu: Priority in which to use Reports to Code Tumor Size
1. Pathology report
2. Operative report
3. Physical examination
4. Imaging (mammography)
5. Imaging (ultrasound)

Both Invasive and Insitu Components
Single Tumor: Record the size of the invasive component
Multiple Tumors: Record the size of the largest invasive tumor

Additional rules for coding breast primaries size:
If the size of the invasive component is ***not*** given, record the size of the entire tumor from the surgical report, pathology report, radiology report or clinical examination.

Note: Information for Breast Site Specific Factors begins on page A-28

For further information on estrogen and progesterone receptor quantification, refer to the invasive breast cancer protocol published by the College of American Pathologists for AJCC seventh edition, published October 2009 available at www.cap.org/apps/docs/committees/cancer/cancer_protocols/2009/InvasiveBreast_09protocol.pdf.

Breast C50.0-C50.6, C50.8-C50.9
CS Site-Specific Factor 1
Estrogen Receptor (ER) Assay
Note 1:

A. In cases where ER is reported on more than one tumor specimen (except as noted in B and D), record the highest value. If any sample is positive, record as positive.

B. If neoadjuvant therapy is given, record the assay from tumor specimens prior to neoadjuvant therapy.

C. If neoadjuvant therapy is given and there are no ER results from pre-treatment specimens, report the findings from post-treatment specimens.

D: If the patient is ER positive and node negative, a multigene test such as OncotypeDX may be performed, in which case another ER test will be performed. Do not record the results of that test in this field. Record only the results of the test which made the patient eligible to be given the multigene test.

Note 2: In general, estrogen receptor (ER) assay is only performed on one sample. In cases where the assay is performed on more than one sample, there is not necessarily any reason to think that the most accurate is the test done on the "largest" tumor specimen. Clinically, treatment will be based on any positive test; with the benefit and minimal toxicity of hormonal therapy, most patients will be given the "benefit of the doubt" and treated with hormonal therapy if any ER test is positive.

Note 3: The most recent interpretation guidelines for ER do not allow for a borderline result. Therefore, code 030 will rarely be used. If 1% or greater cells stain positive, the test results are considered positive. If less than 1% of cells stain positive, the results are considered negative.

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Code	Description
010	Positive/elevated
020	Negative/normal; within normal limits
030	Borderline; undetermined whether positive or negative
988	Not applicable: Information not collected for this case; (If this item is required by your standard setter, use of code 988 will result in an edit error.)
996	Test ordered, results not interpretable
997	Test ordered, results not in chart
998	Test not done (test not ordered and not performed)
999	Unknown or no information; Not documented in patient record

Breast C50.0-C50.6, C50.8-C50.9
CS Site-Specific Factor 2
Progesterone Receptor (PR) Assay
Note 1:

A. In cases where PR is reported on more than one tumor specimen (except as noted in B and D), record the highest value. If any sample is positive, record as positive.

B. If neoadjuvant therapy is given, record the assay from tumor specimens prior to neoadjuvant therapy.

C. If neoadjuvant therapy is given and there are no PR results from pre-treatment specimens, report the findings from post-treatment specimens.

D: If the patient is PR positive and node negative, a multigene test such as OncotypeDX may be performed, in which case another PR test will be performed. Do not record the results of that test in this field. Record only the results of the test which made the patient eligible to be given the multigene test.

Note 2: In general, progesterone receptor (PR) assay is only performed on one sample. In cases where the assay is performed on more than one sample, there is not necessarily any reason to think that the most accurate is the test done on the "largest" tumor specimen. Clinically, treatment will be based on any positive test; with the benefit and minimal toxicity of hormonal therapy, most patients will be given the "benefit of the doubt" and treated with hormonal therapy if any PR test is positive.

Note 3: The most recent interpretation guidelines for PR do not allow for a borderline result. Therefore, code 030 will rarely be used. If 1% or greater cells stain positive, the test results are considered positive. If less than 1% of cells stain positive, the results are considered negative.

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Code	Description
010	Positive/elevated
020	Negative/normal; within normal limits
030	Borderline; undetermined whether positive or negative
988	Not applicable: Information not collected for this case; (If this item is required by your standard setter, use of code 988 will result in an edit error.)
996	Test ordered, results not interpretable
997	Test ordered, results not in chart
998	Test not done (test not ordered and not performed)
999	Unknown or no information; Not documented in patient record

Breast C50.0-C50.6, C50.8-C50.9
CS Site-Specific Factor 3
Number of Positive Ipsilateral Level I-II Axillary Lymph Nodes

Note 1: Include only the number of positive ipsilateral level I and II axillary lymph nodes and intramammary lymph nodes in this field. Intramammary nodes, located within the breast, are not the same as internal mammary nodes, located along the sternum.

Note 2: Record this field even if there has been preoperative treatment.

Note 3: Lymph nodes with only isolated tumor cells (ITCs) are not counted as positive lymph nodes. Only lymph nodes with metastases greater than 0.2 mm (micrometastases or larger) should be counted as positive. If the pathology report indicates that axillary 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 4: This field is based on pathologic information only. If no ipsilateral axillary nodes are removed for examination, or if an ipsilateral axillary lymph node drainage area is removed but no lymph nodes are found, code 098.

Note 5: Instructions in the CSv2 General Rules Part I for Regional Nodes Positive also apply to this field (although the codes in Regional Nodes Positive are 2 digits rather than 3). When positive ipsilateral axillary lymph nodes are coded in this field, the number of positive ipsilateral axillary lymph nodes must be less than or equal to the number coded in Regional Nodes Positive (i.e., the number of positive ipsilateral axillary nodes will always be a subset of the number of positive regional nodes.

Code	Description
000	All ipsilateral axillary nodes examined negative
001-089	1 - 89 nodes positive; (Exact number of nodes positive)
090	90 or more nodes positive
095	Positive aspiration of lymph node(s)
097	Positive nodes, number unspecified
098	No axillary nodes examined
099	Unknown if axillary nodes are positive Not documented in patient record
988	Not applicable: Information not collected for this case; (If this item is required by your standard setter, use of code 988 will result in an edit error.)

Breast C50.0-C50.6, C50.8-C50.9
CS Site-Specific Factor 4
Immunohistochemistry (IHC) of Regional Lymph Nodes

Note 1: Isolated tumor cells (ITCs) are defined as single tumor cells or small clusters not greater than 0.2 millimeter (mm), usually detected by immunohistochemistry (IHC), hematoxylin and eosin stains (H and E) (see CS Lymph Nodes code 050), or molecular (MOL) methods (Reverse Transcription Polymerase Chain Reaction, RT-PCR) (see CS Site-Specific Factor 5). ITCs do not usually show evidence of malignant activity (e.g., proliferation or stromal reaction.)
Note 2: When CS Lymph Nodes is coded 000, use codes 000-009 only to report results of IHC. Otherwise code 987 in this field.
Note 3: If it is unstated whether or not tests are done for IHC, assume they are not done.
Note 4: If the record states N0(i+) and no other information, code to 009.

Code	Description
000	Regional lymph nodes negative on routine hematoxylin and eosin (H and E), no immunohistochemistry (IHC) **OR** unknown if tested for isolated tumor cells (ITCs) by IHC studies Nodes clinically negative, not examined pathologically
001	Regional lymph nodes negative on routine H and E, IHC studies done, negative for tumor
002	Regional lymph nodes negative on routine H and E, IHC studies done, positive for ITCs; (Tumor cell clusters not greater than 0.2 millimeter (mm))
009	Regional lymph nodes negative on routine H and E, positive for tumor detected by IHC, size of tumor cell clusters or metastases not stated Stated as N0(i+) with no further information on regional lymph nodes
987	Not applicable: CS Lymph Nodes not coded 000
988	Not applicable: Information not collected for this case; (If this item is required by your standard setter, use of code 988 will result in an edit error.)

Breast C50.0-C50.6, C50.8-C50.9
CS Site-Specific Factor 5
Molecular (MOL) Studies of Regional Lymph Nodes

Note 1: Isolated tumor cells (ITCs) are defined as single tumor cells or small clusters not greater than 0.2 mm, usually detected by immunohistochemistry (IHC) (see CS Site-Specific Factor 4), Hematoxylin and Eosin (H and E) (see CS Lymph Nodes code 050, or molecular (MOL) methods (Reverse Transcription Polymerase Chain Reaction, RT-PCR). ITCs do not usually show evidence of malignant activity (e.g., proliferation or stromal reaction.)
Note 2: Use codes 000-002 only to report results of MOL studies (RT-PCR) when CS Lymph Nodes

is coded 000. Otherwise code 987 in this field.
Note 3: If it is not stated whether molecular tests are done, assume they are not done.

Code	Description
000	Regional lymph nodes negative on routine hematoxylin and eosin (H and E), no RT-PCR molecular (MOL) studies done **OR** unknown if RT-PCR studies done Nodes clinically negative, not examined pathologically
001	Regional lymph nodes negative on routine H and E, RT-PCR MOL studies done, negative for tumor
002	Regional lymph nodes negative on routine H and E, RT-PCR MOL studies done, positive for tumor
987	Not applicable: CS Lymph Nodes not coded 000
988	Not applicable: Information not collected for this case; (If this item is required by your standard setter, use of code 988 will result in an edit error.)

Breast C50.0-C50.6, C50.8-C50.9
CS Site-Specific Factor 8
HER2: Immunohistochemistry (IHC) Lab Value
Note 1: Record the results of only the immunohistochemistry (IHC) lab value for Human Epidermal Growth Factor Receptor 2 (HER2) in this field. The test determines if there is HER2 overexpression, or an excess amount of HER2 protein on the cell surface. The score is assigned by the pathologist based on the percentage and intensity of cell membrane staining.
Note 2: The same laboratory test should be used to record information in CS Site-Specific Factors 8 and 9.
Note 3: If the test is done but the actual score is not stated, code 997.
Note 4: If the test is not mentioned in the medical record, code to 999 unless there are circumstances under which the test isn't performed, for example no histologic specimen.
See page A-36

Code	Description
000	Score 0
010	Score of 1+
020	Score of 2+
030	Score of 3+

Code	Description
988	Not applicable: Information not collected for this case; (If this information is required by your standard setter, use of code 988 may result in an edit error.)
997	Test ordered, results not in chart
998	Test not done (test not ordered and not performed)
999	Unknown or no information; Not documented in patient record

Breast C50.0-C50.6, C50.8-C50.9
CS Site-Specific Factor 9
HER2: Immunohistochemistry (IHC) Test Interpretation
Note 1: Record the results of only the immunohistochemical (IHC) test for Human Epidermal Growth Factor Receptor 2 (HER2) in this field.
Note 2: The same laboratory test should be used to record information in CS Site-Specific Factors 8 and 9.
Note 3: If the test is not mentioned in the medical record, code to 999 unless there are circumstances under which the test isn't performed, for example no histologic specimen.
See page A-36

Code	Description
010	Positive/elevated
020	Negative/normal; within normal limits
030	Borderline; equivocal; indeterminate; undetermined whether positive or negative
988	Not applicable: Information not collected for this case; (If this information is required by your standard setter, use of code 988 may result in an edit error.)
997	Test ordered, results not in chart
998	Test not done (test not ordered and not performed)
999	Unknown or no information; Not documented in patient record

Breast C50.0-C50.6, C50.8-C50.9
CS Site-Specific Factor 10
HER2: Fluorescence In Situ Hybridization (FISH) Lab Value

Note 1: Record the results of only the Fluorescence In Situ Hybridization (FISH) test for Human Epidermal Growth Factor Receptor 2 (HER2) in this field. The test determines if there are additional copies of the HER2/neu gene in the tumor cells compared to the normal number. The results are reported as a ratio between the number of copies of the HER2/neu gene and the number of copies of chromosome 17, on which the gene resides.

Note 2: Record the actual ratio if given. Enter the stated ratio to two decimal places. Use a trailing zero if needed.

Note 3: The same laboratory test should be used to record information in CS Site-Specific Factors 10 and 11.

Note 4: If the test is done but the actual ratio is not stated, use code 997.

Note 5: If the test is not mentioned in the medical record, code to 999 unless there are circumstances under which the test isn't performed, for example no histologic specimen.

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Code	Description
100-979	Ratio of 1.00 - 9.79 (Enter exact ratio to two decimal places) Examples: 100 1.0 120 1.2 564 5.64
980	Ratio of 9.80 or greater
988	Not applicable: Information not collected for this case (If this information is required by your standard setter, use of code 988 may result in an edit error.)
991	Ratio of less than 1.00
997	Test ordered, results not in chart
998	Test not done (test not ordered and not performed)
999	Unknown or no information; Not documented in patient record

Breast C50.0-C50.6, C50.8-C50.9
CS Site-Specific Factor 11
HER2: Fluorescence In Situ Hybridization (FISH) Test Interpretation

Note 1: Record the interpretation of only the Fluorescence In Situ Hybridization (FISH) test for Human Epidermal Growth Factor Receptor 2 (HER2) in this field.

Note 2: The same laboratory test should be used to record information in CS Site-Specific Factors 10 and 11.
Note 3: If the test is not mentioned in the medical record, code to 999 unless there are circumstances under which the test isn't performed, for example, no histologic specimen.
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Code	Description
010	Positive/elevated; amplified
020	Negative/normal; within normal limits; not amplified
030	Borderline; equivocal; indeterminate; undetermined whether positive or negative
988	Not applicable: Information not collected for this case; (If this information is required by your standard setter, use of code 988 may result in an edit error.)
997	Test ordered, results not in chart
998	Test not done (test not ordered and not performed)
999	Unknown or no information; Not documented in patient record

Breast C50.0-C50.6, C50.8-C50.9
CS Site-Specific Factor 12
HER2: Chromogenic In Situ Hybridization (CISH) Lab Value
Note 1: Record the results of only the Chromogenic In Situ Hybridization (CISH) test for Human Epidermal Growth Factor Receptor 2 (HER2) in this field. The test determines whether there are additional copies of the HER2/neu gene in the tumor cells. The results are reported as the mean number of copies of the HER2/neu gene on either 30 or 60 tumor cells.
Note 2: Record the actual mean if given. Enter the stated mean to two decimal places. Use a trailing zero if needed.
Note 3: The same laboratory test should be used to record information in CS Site-Specific Factors 12 and 13.
Note 4: If the test is done but the actual mean is not stated, use code 997.
Note 5: If the test is not mentioned in the medical record, code to 999 unless there are circumstances under which the test isn't performed, for example, no histologic specimen.
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Code	Description
100-979	Mean of 1.00 - 9.79; (Enter exact mean to two decimal places) Examples: 100 1.0 120 1.2

Code	Description
	564 5.64
980	Mean of 9.80 or greater
988	Not applicable: Information not collected for this case; (If this information is required by your standard setter, use of code 988 may result in an edit error.)
991	Mean of less than 1.00
997	Test ordered, results not in chart
998	Test not done (test not ordered and not performed)
999	Unknown or no information Not documented in patient record

Breast C50.0-C50.6, C50.8-C50.9
CS Site-Specific Factor 13
HER2: Chromogenic In Situ Hybridization (CISH) Test Interpretation

Note 1: Record the interpretation of only the Chromogenic In Situ Hybridization (CISH) test for Human Epidermal Growth Factor Receptor 2 (HER2) in this field.

Note 2: The same laboratory test should be used to record information in CS Site-Specific Factors 12 and 13.

Note 3: If the test is not mentioned in the medical record, code to 999 unless there are circumstances under which the test isn't performed, for example, no histologic specimen.

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Code	Description
010	Positive/elevated; amplified
020	Negative/normal; within normal limits; not amplified
030	Borderline; equivocal; indeterminate; undetermined whether positive or negative
988	Not applicable: Information not collected for this case; (If this information is required by your standard setter, use of code 988 may result in an edit error.)
997	Test ordered, results not in chart

Code	Description
998	Test not done (test not ordered and not performed)
999	Unknown or no information; Not documented in patient record

Breast C50.0-C50.6, C50.8-C50.9
CS Site-Specific Factor 14
HER2: Result of Other or Unknown Test
Note 1: If another type of in situ hybridization type was performed for Human Epidermal Growth Factor Receptor 2 (Her2), other than fluorescent (FISH) or chromogenic (CISH), record the results here.
Note 2: If it is unknown which type of Her2 test was performed, record the results here.
Note 3: If no unnamed HER2 test is mentioned in the medical record, code to 999 unless there are circumstances under which the test isn't performed, for example, no histologic specimen.
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Code	Description
010	Positive/elevated; amplified
020	Negative/normal; within normal limits; not amplified
030	Borderline; equivocal; indeterminate; undetermined whether positive or negative
988	Not applicable: Information not collected for this case; (If this information is required by your standard setter, use of code 988 may result in an edit error.)
997	Test ordered, results not in chart
998	Test not done (test not ordered and was performed)
999	Unknown or no information; Not documented in patient record

Breast C50.0-C50.6, C50.8-C50.9
CS Site-Specific Factor 15
HER2: Summary Result of Testing

Note 1: The summary of the results of the Immunohistochemistry (IHC), Fluorescent In Situ Hybridization (FISH), Chromogenic In Situ Hybridization (CISH), or other/unknown Human Epidermal Growth Factor Receptor 2 (HER2) test is recorded here. This variable is based on CS Site-Specific Factors 9, 11, 13, and 14.

Note 2: If both an IHC and a gene-amplification test (FISH or CISH) are performed, record the result of the gene-amplification test in this field. However, if the gene-amplification test is given first and the result is borderline or equivocal and an IHC test is done to clarify these equivocal results, code the result of the IHC test.

Note 3: If the results of one test are available, and it is known that a second test is performed but the results are not available, use code 997.

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Code	Description
010	Positive/elevated; amplified
020	Negative/normal; within normal limits; not amplified
030	Borderline; equivocal; indeterminate; undetermined whether positive or negative
988	Not applicable: Information not collected for this case; (If this information is required by your standard setter, use of code 988 may result in an edit error.)
997	Test(s) ordered, results not in chart
998	Test(s) not done (test(s) not ordered and not performed)
999	Unknown or no information Not documented in patient record

Breast C50.0-C50.6, C50.8-C50.9
CS Site-Specific Factor 16
Combinations of ER, PR, and HER2 Results

Note 1: There is a clinical interest in triple negative breast cancer, or breast cancer that is negative for estrogen receptors (ER), progesterone receptors (PR), and Human Epidermal Growth Factor Receptor 2 (HER2) amplification or overexpression.

Note 2: This field is based on CS Site-Specific Factors 1, 2, and 15.

Note 3: ER results are coded in the first digit: 0 for negative and 1 for positive.

Note 4: PR results are coded in the second digit: 0 for negative and 1 for positive.

Note 5: HER2 results are coded in the third digit: 0 for negative and 1 for positive.

Note 6: If information is unknown or not available for one or more of the three types of tests, or if

one or more of the three types of tests was not performed, code 999.

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Code	Description
000	ER Negative, PR Negative, HER2 Negative (Triple Negative)
001	ER Negative, PR Negative, HER2 Positive
010	ER Negative, PR Positive, HER2 Negative
011	ER Negative, PR Positive, HER2 Positive
100	ER Positive, PR Negative, HER2 Negative
101	ER Positive, PR Negative, HER2 Positive
110	ER Positive, PR Positive, HER2 Negative
111	ER Positive, PR Positive, HER2 Positive
988	Not applicable: Information not collected for this case; (If this information is required by your standard setter, use of code 988 may result in an edit error.)
999	One or more tests not performed One or more tests unknown if performed One or more tests with unknown or borderline results Unknown or no information Not documented in patient record