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To: All SEER participants  
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### REVISION OF EXTENSION FIELDS FOR BREAST CANCER

The SEER Program will expand the choices of EOD Extension codes for breast cancer to document whether the tumor size recorded is other than for purely invasive cancers.

**Purpose:** To reduce the number of cases that are unstageable in the TNM conversion algorithm.

**Background:** In the 1999 breast cancer data, it became apparent that more and more path reports were only recording the size of the entire lesion and not the invasive component (resulting in 999 codes for breast tumor size). This has led to many breast cancer cases being staged as unknown instead of stage I or II. The graph (Appendix 2) shows that the rate of unknown breast cancer has nearly doubled between 1998 and 1999 for women 50-64 and stage I has dropped dramatically. This shift is highly likely to be due to the tumor size rule rather than an actual shift in stage.

**Cases affected:** All breast cancer cases with Tumor Size code 999 and Extension code 10, 20 or 30.

**Diagnosis date:** *Current SEER registries:* diagnosed between January 1, 1998 and December 31, 2002  
*Expansion SEER Registries:* diagnosed between January 1, 2000 and December 31, 2002.

**Procedure:** Select all breast cancer cases (non-lymphomas) with '10,' '20,' or '30' in the EOD extension and '999' for tumor size diagnosed after January 1, 1998. For each case, review the case and code size and EOD extension according to the attached documentation (Appendix 1). Changes should be recorded in the file that is submitted to NCI-SEER.

**Completion date:** Review of cases diagnosed January 1, 1998 through December 31, 2000 must be completed by and included with the Feb 1, 2003 submission. If possible, the cases diagnosed in 2001 should also be reviewed by February 1, 2003, but if this is a problem for 2001 cases, they may be submitted in the August 2003 submission.

**SEER Edits:** To accommodate the new codes, SEER\*Edits will be revised and the changes will be distributed to participating regions as soon as possible.

**Note 1:** Several registries have asked whether they should also review cases with tumor size codes 009 and 019. The answer is that NCI-SEER is not requiring review of those cases. If an individual registry chooses to review them, they can. The purpose of this review is to derive a tumor size that allows as many cases as possible to be converted to a TNM stage group. Codes 009 and 019 already indicate that the tumor, whether purely invasive or mixed invasive and in situ, is less than 2 cm, and therefore a TNM Tumor category of T1 can be inferred. Summary staging is not affected.

**Note 2:** A number of people asked about requiring software vendors to make changes in hospital registry software. The consensus is that, assuming that SEER changes over to the Collaborative Staging System with cases diagnosed January 1, 2003 and after, the ability to collect tumor size information will be captured in a different way. It is not feasible to require hospital software vendors to make the changes for the remainder of 2002 cases and then change again for 2003.

**Appendix 1. Revised Breast Cancer EOD Codes**  
**Effective for cases diagnosed January 1, 1998 through December 31, 2002**

**BREAST**

C50.0-C50.6, C50.8-C50.9

- C50.0 Nipple <>
- C50.1 Central portion of breast (subareolar) <>
- C50.2 Upper inner quadrant of breast <>
- C50.3 Lower inner quadrant of breast <>
- C50.4 Upper outer quadrant of breast <>
- C50.5 Lower outer quadrant of breast <>
- C50.6 Axillary tail of breast <>
- C50.8 Overlapping lesion of breast <>
- C50.9 Breast, NOS <>

<> Laterality must be coded for this site.

**SIZE OF PRIMARY TUMOR**

(from pathology report; operative report; physical examination; mammography examination--in priority order; if multiple masses, code largest diameter)

- a. Record the size of the invasive component, if given.
- b. If both an *in situ* and an invasive component are present, and the invasive component is measured, record the size of the invasive component even if it is smaller.  
*Example* Tumor is mixed *in situ* and invasive adenocarcinoma, total 3.7 cm in size, of which 1.4 cm is invasive. *Record tumor size as 014.*
- c. 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 and document how the size was determined in the EOD Extension field.  
*Example* Infiltrating duct carcinoma with 20% *in situ* component; total size 2.3 cm.  
*Record tumor size as 023. EOD Extension code 14, 24, or 34.*  
*Example* Extensive duct carcinoma *in situ* covering a 1.9 cm area with small areas of invasive ductal carcinoma. *Record tumor size as 019. EOD Extension code 15, 25, or 35.*
- d. For purely *in situ* lesions, code the size as stated.

Code

- 000 No mass; no tumor found; no Paget's disease
- 001 Microscopic focus or foci only
- 002 Mammography/xerography diagnosis only with no size given (tumor not clinically palpable)

	<u>mm</u>	<u>cm</u>
003	<u>≤3</u>	<u>≤0.3</u>
...		
...		
009	9	0.9
010	10	1.0
...		
...		
099	99	9.9
100	100	10.0
...		
...		
990	990 +	99.0 +

- 997 Paget's Disease of nipple with no demonstrable tumor
- 998 Diffuse; widespread: 3/4's or more of breast; inflammatory carcinoma
- 999 Not stated

## **EXTENSION**

- 00 IN SITU: Noninfiltrating; intraductal  
WITHOUT infiltration; lobular neoplasia
- 05 Paget's disease (WITHOUT underlying tumor)
- 10 Confined to breast tissue and fat including nipple and/or areola
  - 11 Entire tumor reported as invasive (no in situ component reported)
  - 13 Invasive and in situ components present, size of invasive component stated and coded in Tumor Size
  - 14 Invasive and in situ components present, size of entire tumor coded in Tumor Size (size of invasive component not stated) AND in situ described as minimal (less than 25%)
  - 15 Invasive and in situ components present, size of entire tumor coded in Tumor Size (size of invasive component not stated) AND in situ described as extensive (25% or more)
  - 16 Invasive and in situ components present, size of entire tumor coded in Tumor Size (size of invasive component not stated) AND proportions of in situ and invasive not known
  - 17 Invasive and in situ components present, unknown size of tumor (Tumor Size coded 999)
  - 18 Unknown if invasive and in situ components present, unknown if tumor size represents mixed tumor or a "pure" tumor
- 20 Invasion of subcutaneous tissue
  - Skin infiltration of primary breast including skin of nipple and/or areola
  - Local infiltration of dermal lymphatics adjacent to primary tumor involving skin by direct extension
  - 21 Entire tumor reported as invasive (no in situ component reported)
  - 23 Invasive and in situ components present, size of invasive component stated and coded in Tumor Size
  - 24 Invasive and in situ components present, size of entire tumor coded in Tumor Size (size of invasive component not stated) AND in situ described as minimal (less than 25%)
  - 25 Invasive and in situ components present, size of entire tumor coded in Tumor Size (size of invasive component not stated) AND in situ described as extensive (25% or more)
  - 26 Invasive and in situ components present, size of entire tumor coded in Tumor Size (size of invasive component not stated) AND proportions of in situ and invasive not known
  - 27 Invasive and in situ components present, unknown size of tumor (Tumor Size coded 999)
  - 28 Unknown if invasive and in situ components present, unknown if tumor size represents mixed tumor or a "pure" tumor
- 30 Invasion of (or fixation to) pectoral fascia or muscle; deep fixation; attachment or fixation to pectoral muscle or underlying tissue
  - 31 Entire tumor reported as invasive (no in situ component reported)
  - 33 Invasive and in situ components present, size of invasive component stated and coded in Tumor Size
  - 34 Invasive and in situ components present, size of entire tumor coded in Tumor Size (size of invasive component not stated) AND in situ described as minimal (less than 25%)
  - 35 Invasive and in situ components present, size of entire tumor coded in Tumor Size (size of invasive component not stated) AND in situ described as extensive (25% or more)
  - 36 Invasive and in situ components present, size of entire tumor coded in Tumor Size (size of invasive component not stated) AND proportions of in situ and invasive not known
  - 37 Invasive and in situ components present, unknown size of tumor (Tumor Size coded 999)
  - 38 Unknown if invasive and in situ components present, unknown if tumor size represents mixed tumor or a "pure" tumor
- 40 Invasion of (or fixation to) chest wall, ribs, intercostal or serratus anterior muscles
- 50 Extensive skin involvement:
  - Skin edema, peau d'orange, "pigskin," en cuirasse, lenticular nodule(s), inflammation of skin, erythema, ulceration of skin of breast, satellite nodule(s) in skin of primary breast
- 60 (50) + (40)
- 70 Inflammatory carcinoma, incl. diffuse (beyond that directly overlying the tumor) dermal lymphatic permeation or infiltration

80 FURTHER contiguous extension:  
Skin over sternum, upper abdomen, axilla or opposite breast

85 Metastasis:  
Bone, other than adjacent rib  
Lung  
Breast, contralateral--if stated as metastatic  
Adrenal gland  
Ovary  
Satellite nodule(s) in skin other than primary breast

99 UNKNOWN if extension or metastasis

**Note 1:** 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 2:** Consider adherence, attachment, fixation, induration, and thickening as clinical evidence of extension to skin or subcutaneous tissue; code '20'.

**Note 3:** Consider "fixation, NOS" as involvement of pectoralis muscle; code '30'.

**Note 4:**

If extension code is:	Behavior code must be:
00	2
05	2 or 3
10	3

**Note 5:** Measure the size of the metastasis in the lymph node to determine codes 1-4, not the size of the lymph node itself.

| **Reference:** Breast Cancer Protocol and Case Summary, note E, College of American Pathologists,  
| August 2000. <http://www.cap.org/html/ftpdirectory/cancerftp.html>

***The Lymph Nodes Extension field is unchanged.***

**Appendix 2. SEER Data Showing Increase in Unstaged and Decrease in Stage I Breast Cases**

**Female breast cancer incidence  
Ages 50-64 by stage, 1988-1999**

