

Breast

Protocol applies to all invasive carcinomas of the breast.

*Protocol revision date: January 2005
Based on AJCC/UICC TNM, 6th edition*

Procedures

- **Cytology** (No Accompanying Checklist)
- **Biopsy (Incisional, Core Needle)** (No Accompanying Checklist)
- **Complete Excision Less Than Total Mastectomy (With or Without Axillary Contents)**
- **Mastectomy (Total, Modified Radical, Radical)**

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The College of American Pathologists offers these protocols to assist pathologists in providing clinically useful and relevant information when reporting results of surgical specimen examinations of surgical specimens. The College regards the reporting elements in the "Surgical Pathology Cancer Case Summary (Checklist)" portion of the protocols as essential elements of the pathology report. However, the manner in which these elements are reported is at the discretion of each specific pathologist, taking into account clinician preferences, institutional policies, and individual practice.

The College developed these protocols as an educational tool to assist pathologists in the useful reporting of relevant information. It did not issue the protocols for use in litigation, reimbursement, or other contexts. Nevertheless, the College recognizes that the protocols might be used by hospitals, attorneys, payers, and others. Indeed, effective January 1, 2004, the Commission on Cancer of the American College of Surgeons mandated the use of the checklist elements of the protocols as part of its Cancer Program Standards for Approved Cancer Programs. Therefore, it becomes even more important for pathologists to familiarize themselves with the document. At the same time, the College cautions that use of the protocols other than for their intended educational purpose may involve additional considerations that are beyond the scope of this document.

Summary of Changes to Checklist(s)

Protocol revision date: January 2005

No changes have been made to the data elements of the checklist(s) since the January 2004 protocol revision.

Surgical Pathology Cancer Case Summary (Checklist)

*Protocol revision date: January 2005
Applies to invasive carcinomas only
Based on AJCC/UICC TNM, 6th edition*

BREAST: Excision Less Than Total Mastectomy (Includes Wire-Guided Localization Excisions), Total Mastectomy, Modified Radical Mastectomy, Radical Mastectomy

Patient name:

Surgical pathology number:

Note: Check 1 response unless otherwise indicated.

MACROSCOPIC

Specimen Type

- Excision
 Mastectomy
 Other (specify): _____
 Not specified

Lymph Node Sampling

- No lymph node sampling
 Sentinel lymph node(s) only
 Sentinel lymph node with axillary dissection
 Axillary dissection

Specimen Size (for excisions less than total mastectomy)

Greatest dimension: ___ cm

*Additional dimensions: ___ x ___ cm

Cannot be determined (see Comment)

Laterality

- Right
 Left
 Not specified

Tumor Site (check all that apply)

- Upper outer quadrant
 Lower outer quadrant
 Upper inner quadrant
 Lower inner quadrant
 Central
 Not specified

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MICROSCOPIC**Size of Invasive Component**

Greatest dimension: ___ cm

*Additional dimensions: ___ x ___ cm

___ Cannot be determined (see Comment)

Note: The size of the tumor, as measured by gross examination, must be verified by microscopic examination. If there is a discrepancy between gross and microscopic tumor measurement, the microscopic measurement of the invasive component takes precedence and should be used for tumor staging.

Histologic Type (check all that apply)

- ___ Noninvasive carcinoma (NOS)
- ___ Ductal carcinoma in situ
- ___ Lobular carcinoma in situ
- ___ Paget disease without invasive carcinoma
- ___ Invasive carcinoma (NOS)
- ___ Invasive ductal carcinoma
- ___ Invasive ductal carcinoma with an extensive intraductal component
- ___ Invasive ductal carcinoma with Paget disease
- ___ Invasive lobular
- ___ Mucinous
- ___ Medullary
- ___ Papillary
- ___ Tubular
- ___ Adenoid cystic
- ___ Secretory (juvenile)
- ___ Apocrine
- ___ Cribriform
- ___ Carcinoma with squamous metaplasia
- ___ Carcinoma with spindle cell metaplasia
- ___ Carcinoma with cartilaginous/osseous metaplasia
- ___ Carcinoma with metaplasia, mixed type
- ___ Other(s) (specify): _____
- ___ Carcinoma, type cannot be determined

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Histologic Grade (any grading system may be used; mitotic count is also required independent of the grading system)

Nottingham Histologic Score

(If not used, see Other Grading System below)

Tubule Formation

- Majority of tumor greater than 75% (score = 1)
- Moderate 10% to 75% (score = 2)
- Minimal less than 10% (score = 3)

Nuclear Pleomorphism

- Small regular nuclei (score = 1)
- Moderate increase in size, etc (score = 2)
- Marked variation in size, nucleoli, chromatin clumping, etc (score = 3)

Mitotic Count (for those using Nottingham system)

For a 25x objective with a field area of 0.274 mm²

- Less than 10 mitoses per 10 HPF (score = 1)
- 10 to 20 mitoses per 10 HPF (score = 2)
- Greater than 20 mitoses per 10 HPF (score = 3)

or

For a 40x objective with a field area of 0.152 mm²

- 0 to 5 mitoses per 10 HPF (score = 1)
- 6 to 10 mitoses per 10 HPF (score = 2)
- Greater than 10 mitoses per 10 HPF (score = 3)

Total Nottingham Score

- Grade I: 3-5 points
- Grade II: 6-7 points
- Grade III: 8-9 points
- Score cannot be determined

Other Grading System

Specify grading system: _____

- Grade 1
- Grade 2
- Grade 3
- Grade cannot be determined

Mitotic Count (for those using other grading systems)

- Number of mitoses per 10 HPF

Pathologic Staging (pTNM)Primary Tumor (pT)

- pTX: Cannot be assessed
 pT0: No evidence of primary tumor
 pTis: Ductal carcinoma in situ
 pTis: Lobular carcinoma in situ
 pTis: Paget disease without invasive carcinoma
 pT1: Tumor 2.0 cm or less in greatest dimension
 pT1mic: Microinvasion 0.1 cm or less in greatest dimension
 pT1a: Tumor more than 0.1 cm but not more than 0.5 cm in greatest dimension
 pT1b: Tumor more than 0.5 cm but not more than 1.0 cm in greatest dimension
 pT1c: Tumor more than 1.0 cm but not more than 2.0 cm in greatest dimension
 pT2: Tumor more than 2.0 cm but not more than 5.0 cm in greatest dimension
 pT3: Tumor more than 5.0 cm in greatest dimension
 pT4: Tumor of any size with direct extension to chest wall or skin, but only as described below.[#]
 pT4a: Extension to chest wall, not including pectoralis muscle
 pT4b: Edema (including peau d'orange) or ulceration of the skin of the breast or satellite skin nodules confined to the same breast
 pT4c: Both T4a and T4b
 pT4d: Inflammatory carcinoma

[#] Clinical information may be required to designate a tumor as pT4. Dermal invasion alone (without ulceration, satellite nodules, or inflammatory breast cancer) does not alter T category. Such cases are classified as T1, T2, or T3, depending on tumor size.

Regional Lymph Nodes (pN) (choose a category based on data supplied with specimen; immunocytochemistry and molecular studies are not required)

- pNX: Cannot be assessed (previously removed or not removed for pathologic study)
 pN0: No regional lymph node metastasis histologically (ie, none greater than 0.2 mm), no examination for isolated tumor cells (ITCs)
 pN0(i-): No regional lymph node metastasis histologically, negative morphologic (any morphologic technique, including hematoxylin-eosin and immunohistochemistry) findings for ITCs
 pN0(i+): No regional lymph node metastasis histologically, positive morphologic (any morphologic technique, including hematoxylin-eosin and immunohistochemistry) findings for ITCs, no ITC cluster greater than 0.2 mm
 pN0(mol-): No regional lymph node metastasis histologically, negative nonmorphologic (molecular) findings for ITCs
 pN0(mol+): No regional lymph node metastasis histologically, positive nonmorphologic (molecular) findings for ITCs
 pN1: Metastasis in 1 to 3 axillary lymph nodes, and/or internal mammary nodes with microscopic disease detected by sentinel lymph node dissection but not clinically apparent
 pN1mi: Micrometastasis (greater than 0.2 mm, none greater than 2.0 mm)
 pN1a: Metastasis in 1 to 3 axillary lymph nodes (at least 1 tumor deposit greater than 2.0 mm)

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- ___ pN1b: Metastasis in internal mammary lymph nodes with microscopic disease detected by sentinel lymph node dissection but not clinically apparent
 - ___ pN1c: Metastasis in 1 to 3 axillary lymph nodes and in internal mammary nodes with microscopic disease detected by sentinel lymph node dissection but not clinically apparent
 - ___ pN2a: Metastasis in 4 to 9 axillary lymph nodes (at least 1 tumor deposit greater than 2.0 mm)
 - ___ pN2b: Metastasis in clinically apparent internal mammary lymph nodes in the *absence* of axillary lymph node metastases
 - ___ pN3a: Metastasis in 10 or more axillary lymph nodes (at least 1 tumor deposit greater than 2.0 mm), or metastasis to the infraclavicular lymph nodes
 - ___ pN3b: Metastasis in clinically apparent ipsilateral internal mammary lymph nodes in the *presence* of 1 or more positive axillary lymph nodes; or in more than 3 axillary lymph nodes and in internal mammary lymph nodes with microscopic disease detected by sentinel lymph node dissection but not clinically apparent
 - ___ pN3c: Metastasis in ipsilateral supraclavicular lymph nodes
- Specify: Number examined: ___
 Number involved: ___

Distant Metastasis (pM)

- ___ pMX: Cannot be assessed
- ___ pM1: Distant metastasis
 *Specify site(s), if known: _____

Margins (check all that apply)

- ___ Margins cannot be assessed
- ___ Margins uninvolved by invasive carcinoma
 Distance from closest margin: ___ mm
 *Specify which margin: _____
- ___ Margins uninvolved by DCIS (if present)
 Distance from closest margin: ___ mm
 *Specify which margin: _____
- ___ Margin(s) involved by invasive carcinoma
 Specify which margin: _____
- ___ Margin(s) involved by DCIS
 Specify which margin: _____

*Extent of Margin Involvement for Invasive Carcinoma

- * ___ Cannot be assessed
- * ___ Unifocal
- * ___ Multifocal
- * ___ Extensive
- * ___ Other (specify): _____

*Extent of Margin Involvement for DCIS

- * ___ Cannot be assessed
- * ___ Unifocal
- * ___ Multifocal
- * ___ Extensive
- * ___ Other (specify): _____

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***Venous/Lymphatic (Large/Small Vessel) Invasion (V/L)**

- * Absent
- * Present
- * Indeterminate

***Microcalcifications (check all that apply)**

- * Not identified
- * Present in DCIS
- * Present in invasive carcinoma
- * Present in non-neoplastic tissue
- * Present in both tumor and non-neoplastic tissue

***Additional Pathologic Findings**

*Specify: _____

***Comment(s)**

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