Criteria	Yes	No
Diagnosis Discrepancy		✓
Primary Tumor Site Discrepancy		✓
HIPAA Discrepancy		✓
Prior Malignancy History		✓
Dual/Synchronous Primary Noted		✓

Case is (circle): QUALIFIED / DISQUALIFIED
Reviewer Initials RB Date Reviewed: 7/29/11
lw 10/21/11

UUID:4F047F5B-EF3A-4590-8E7A-D90A52860324
TCGA-A1-A0SM-01A-PR Redacted

ICD-O-3
Carcinoma, infiltrating duct, NOS 8500/3
Site: breast, NOS C50.9 lw 10/21/11

Final Pathologic Diagnosis:

A. Left axillary sentinel lymph node #1, biopsy: No tumor in one lymph node (0/1).

B. Left axillary sentinel lymph node #2, biopsy: No tumor in one lymph node (0/1).

C. Left axillary minor sentinel lymph node #3, biopsy: No tumor in one lymph node (0/1).

D. Left breast, mastectomy:
1. Invasive ductal carcinoma, 3.5 cm, grade 2, associated with microcalcifications; see comment.
2. Ductal carcinoma in situ, cribriform, intermediate grade.
3. Gynecomastia.

Note:
Breast Tumor Synoptic Comment
- Laterality: Left.
- Invasive tumor type: Invasive ductal carcinoma.
- Invasive tumor size: 3.5 cm maximum diameter.
- Invasive tumor grade (modified Bloom-Richardson): Grade 2.
  Nuclear grade: 3 = 3 points.
  Mitotic count: <10 mitotic figures/10 HPF = 1 point.
  Tubule/papilla formation: Definite tubule formation in <10% = 3 points.
  Total points and overall grade: 7 points = grade 2.
- Lymphatic-vascular invasion: None.
- Perineural invasion: None.
- Resection margins for invasive tumor:
  - Deep margin: Negative; (tumor is 0.3 cm away, on slide D4).

- Medial margin: Negative; (tumor is >1 cm away).
- Lateral margin: Negative; (tumor is >1 cm away).
- Anterior/superior margin: Negative; (tumor is >1 cm away).
- Anterior/inferior margin: Negative; (tumor is 0.8 cm away, on slide D3).

- Ductal carcinoma in situ (DCIS) type: Cribriform.
- Ductal carcinoma in situ size: 0.3 cm.
- Ductal carcinoma in situ nuclear grade: Intermediate nuclear grade.
- Necrosis in DCIS: None.
- Microcalcifications: Present in invasive carcinoma.
- Resection margins for ductal carcinoma in situ:
  - Deep margin: Negative; (tumor is >1 cm away).
  - Medial margin: Negative; (tumor is >1 cm away).
  - Lateral margin: Negative; (tumor is >1 cm away).
  - Anterior/superior margin: Negative; (tumor is >1 cm away).
  - Anterior/inferior margin: Negative; (tumor is >1 cm away).

- Lymph node status: Negative (0/3).

- AJCC/UICC stage: pT2N0MX.

- Nontumorous breast tissue: Gynecomastia.
- Nipple: No tumor.
- Skin/dermis: No tumor.

- Additional comments: Each sentinel lymph node was examined with level sections. No metastatic carcinoma was identified.

[redacted] has reviewed selected slides and concurs with the findings.

Intraoperative Consult Diagnosis

FS1 (A) Sentinel lymph node #1, left axilla, biopsy: No carcinoma. Cytologic preparations and frozen section. ([redacted],

FS2 (B) Sentinel lymph node #2, left axilla, biopsy: No carcinoma. Cytologic preparations and frozen section. ([redacted]

Clinical History

The patient is a -year-old with invasive ductal carcinoma of the left breast. This diagnosis was established by core biopsy at another institution. That biopsy showed that the carcinoma is ER, PR, and HER-2-positive.

Gross Description

The specimen is received fresh in four parts, each labeled with the patient's name and unit number.

Part A, labeled "[redacted] consists of a single soft irregular red-yellow candidate lymph node measuring 2.7 x 1.8 x 1.3 cm. Extraneous fatty tissue is removed. The candidate lymph node is bisected. Touch and scrape preparations are made. The remaining lymph node is submitted for frozen section, and subsequently submitted in cassette A1. The unused fatty tissue is entirely submitted in cassette A2.

Part B, labeled "[redacted] nsists of a single soft irregular red-yellow candidate lymph node measuring 1.7 x 0.8 x 0.7 cm. Extraneous fatty tissue is removed. The lymph node is bisected. Touch and scrape preparations are made. The remaining lymph node is submitted for frozen section diagnosis 2, and subsequently submitted in cassette B1. The unused fatty tissue is entirely submitted in cassette B2.

Part C, additionally labeled "[redacted]," consists of a single fragment of yellow fibrofatty tissue measuring 2 x 1.5 x 0.5 cm. One candidate lymph node is palpated within the fatty tissue. The

specimen is entirely submitted in cassette C1.

Part D, additionally labeled [redacted] consists of a mastectomy specimen oriented with a short suture superior and a long suture lateral. The specimen measures 14.2 cm from superior to inferior, 14.5 cm from medial to lateral and 3 cm from anterior to posterior. On the anterior surface, there is a skin ellipse measuring 12.4 x 4.6 cm. Within the skin ellipse is a nipple/areola measuring 2 cm in diameter. A firm mass is palpated deep and medial to the nipple in the inner upper and lower quadrants. The specimen is inked for microscopic evaluation, with the anterior superior inked in blue, the anterior inferior inked in green and the posterior inked in black. The specimen is then sectioned into fifteen slices, numbered from medial to lateral. The nipple-areolar complex appears in slices 5-7. Sectioning shows an irregular, lobulated, pink-tan mass measuring 3.5 cm; this is located in the inner lower quadrant deep to the nipple, in slices 5-7. The cyst mass extends to within 0.7 cm of the deep margin, 1.7 cm from the anterior superior margin, and 1.9 cm from the anterior inferior margin. The remainder of the breast parenchyma consists of yellow fatty tissue and is unremarkable. Cassettes are submitted as follows:

Cassettes D1-D2: Nipple.
Cassettes D3-D4: Mass, slice 5.
Cassettes D5-D7: Mass, slice 6 (widest cross-section superior to inferior).
Cassette D8: Representative medial margin.
Cassette D9: Representative lateral margin.
Cassette D10: Representative unremarkable inner upper quadrant, slice 2.
Cassette D11: Representative unremarkable inner upper quadrant, slice 4.
Cassette D12: Representative unremarkable inner lower quadrant, slice 3.
Cassette D13: Representative unremarkable inner lower quadrant, slice 4.
Cassette D14: Representative unremarkable outer upper quadrant, slice 9.
Cassette D15: Representative unremarkable outer upper quadrant, slice 12.
Cassette D16: Representative unremarkable outer lower quadrant, slice 10.
Cassette D17: Representative unremarkable outer lower quadrant, slice 13.

[redacted]/Pathology Resident

[redacted]/Pathologist
Signed:

Fee Codes:

Addenda

Addendum.

Date Ordered:
Date Complete:
Date Reported:

Status: Signed Out
By:

Addendum Comment

An immunohistochemical test for estrogen and progesterone receptors as well as for HER2 was performed on block D6.

The test for estrogen receptors is positive. There is variable nuclear staining (ranging from weak to strong) in ~20% of tumor cells.

The test for progesterone receptors is negative. There is no nuclear staining in any of tumor cells. Internal positive control is present.

Result of HER2/neu test: This carcinoma is positive for HER2/neu oncoprotein over-expression.

An immunohistochemical assay was performed using the CB11 monoclonal antibody to HER2/neu oncoprotein. The staining intensity of this carcinoma was 3 on a scale of 0-3.

Carcinomas with staining intensity scores of *0 or 1* are considered *negative* for over-expression of HER2/neu oncoprotein.

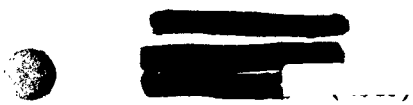
Those with a staining intensity score of *2* are considered *indeterminate*. We and others have observed that many carcinomas with staining intensity scores of 2 do not show gene amplification. All carcinomas with staining intensity scores of 2 are therefore submitted for FISH testing. The results of the FISH test are issued directly from the molecular cytogenetics laboratory.

Carcinomas with staining intensity scores of *3* are considered *positive* for over-expression of HER2/neu oncoprotein. Tumors in this category show an excellent correlation between the results of immunohistochemical and FISH testing, and almost always show gene amplification.

The immunoperoxidase stain(s) reported above were developed and their performance characteristics determined by the [redacted]. They have not been cleared or approved by the U. S. Food and Drug Administration. The FDA has determined that such clearance or approval is not necessary. These tests are used for clinical purposes. They should not be regarded as investigational or for research. This laboratory is certified under the Clinical Laboratory Improvement Amendments of 1988 ("CLIA") as qualified to perform high-complexity clinical testing.

[redacted]/Pathologist

Electronically signed out on



Specimen Class: Status: Signed Out Accessione

END OF REPORT