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 RS Date Reviewed: 9/28/11 lw 10/31/11		

UUID:4CD6BDB7-9629-41C6-8514-7661E3D33A66
TCGA-A1-A0SI-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. Sentinel lymph node #1, right axilla, biopsy: No tumor identified in one lymph node (0/1).

B. Non-sentinel lymph node #2, right axilla, biopsy: One lymph node positive for metastatic carcinoma (1/1).

C. Sentinel lymph node #2, right axilla, biopsy: No tumor identified in one lymph node (0/1).

D. Non-sentinel lymph node #1, right axilla, dissection: No tumor identified in one lymph node (0/1).

E. Non-sentinel lymph node #3, right axilla, dissection: Fibrofatty tissue, no tumor or lymph node tissue seen on level sections.

F. Right breast, lumpectomy:
1. Invasive ductal carcinoma, SBR grade II, 2.6 cm; see comment.
2. Lymphovascular invasion present.
3. Usual ductal hyperplasia.

G. Lymph nodes, right axillary contents, dissection: No tumor identified in nineteen lymph nodes (0/19).

Note: *Breast Tumor Synoptic Comment*
- Laterality: Right.
- Invasive tumor type: Invasive ductal carcinoma NOS.
- Invasive tumor size: 2.6 cm maximum diameter (tumor spans slices 2-8, best seen in slides F4, F6, F8, F10, F12, F13, and F15).
- Invasive tumor grade (modified Bloom-Richardson): II.
  Nuclear grade: 2, 2 points.
  Mitotic count: 3 mitotic figures/10 HPF, 1 point.
  Tubule/papilla formation: Definite tubule formation in less than 10%, 3 points.
  Total points and overall grade = 6 points = grade 2.
- Lymphatic-vascular invasion: Present (slide F15).
- Resection margins for invasive tumor:
  - Deep margin: Negative; tumor is within less than 0.1 cm on slide F6 (black ink).
  - Medial margin: Negative.
  - Lateral margin: Negative.
  - Anterior/superior margin: Negative; tumor is within less than 0.1 cm on slide F10 (blue ink).
  - Anterior/inferior margin: Negative; tumor is within 1 cm on slide F8 (green ink).

- Ductal carcinoma in situ (DCIS) type: None identified.
- Lobular carcinoma in situ (LCIS): None identified.
- Lymph node status:
  - Number of positive lymph nodes: 1.
  - Total number sampled: 23.
- Diameter of largest metastasis: 3 mm.
- Extranodal extension: Absent.
- AJCC/UICC stage: pT2N1MX.

- Nontumorous breast tissue: Usual ductal hyperplasia.
- Nipple: Unremarkable.
- Skin/dermis: Unremarkable.

- Additional comments: ER, PR, and HER-2/neu stains have been ordered and will be reported in an addendum.

Intraoperative Consult Diagnosis

FS1 (A) Sentinel lymph node #1, right axilla, biopsy: One lymph node with no evidence of metastatic carcinoma. (Dr.

FS2 (B) Non-sentinel lymph node #2, right axilla, biopsy: Metastatic carcinoma. (Dr.

FS3 (C) Sentinel lymph node #2, right axilla, biopsy: One lymph node with no evidence of metastatic carcinoma. (Dr.

Clinical History

The patient is a year-old woman who undergoes a right breast lumpectomy with axillary lymph node dissection.

Gross Description

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

Part A, labeled " consists of a single soft, irregular, red-tan candidate lymph node measuring 1.2 x 0.6 x 0.4 cm. The entire specimen is frozen for frozen section diagnosis 1, and subsequently submitted in cassette A1.

Part B, labeled "non-sentinel lymph node #2 right axilla," consists of a single soft, irregular, red-tan candidate lymph node measuring 1.3 x 0.8 x 0.5 cm. The entire specimen is frozen for frozen section diagnosis 2, and subsequently submitted in cassette B1.

Part C, labeled consists of a single soft, irregular piece of red-yellow, fatty tissue measuring 1.5 x 1 x 0.4 cm. Fatty tissue is trimmed away, and a single candidate lymph node is found. The candidate lymph node is entirely submitted for frozen section diagnosis 3, and subsequently submitted in cassette C1. The remaining unused fatty tissue is entirely submitted in cassette C2.

Part D, received in formalin and labeled , consists of one soft and firm, tan-yellow, fatty tissue fragment measuring 1.7 x 1 x 0.4 cm. The entire specimen is submitted in cassette D1.

Part E, received in formalin and labeled consists of one soft and firm, tan-yellow, fatty tissue fragment measuring 1.6 x 1.2 x 0.4 cm. The entire specimen is submitted in cassette E1.

Part F is received in formalin and additionally labeled It consists of a 9-gm breast lumpectomy specimen, measuring 1.5 cm from anterior to posterior, 5 cm from superior to inferior, and 3.5 cm from lateral to medial. There is a short stitch designated as superior and a long stitch designated as lateral. The specimen is inked as follows: anterior superior blue, anterior inferior green, and posterior black. Prior to receipt by me (Dr. the posterior portion of the breast has been incised and tissue removed for tissue banking. The specimen is serially sectioned, from medial to lateral, into eight slices and reveals a well-circumscribed, tan, firm nodule (1.5 x 1 x 0.9 cm) in slices 3 through 6. The tumor nodule is located approximately 1 cm from both the lateral- and medial-most margins, 0.7 cm from the superior margin, and 1.3 cm from the inferior margin. The closest approach to a margin is in slice 6, where it appears to abut the anterior-mid portion of the specimen (<1 mm grossly from the blue/green-inked margin). The specimen is entirely submitted as follows:

Cassette F1:	Medial-most margin.
Cassette F2:	Slice 2, superior.
Cassette F3:	Slice 2, inferior.
Cassette F4:	Slice 3, superior (and nodule).
Cassette F5:	Slice 3, inferior.
Cassette F6:	Slice 4, superior (and nodule).
Cassette F7:	Slice 4, inferior.
Cassette F8:	Slice 5, superior (and nodule).
Cassette F9:	Slice 5, inferior.
Cassette F10:	Slice 6, superior (and nodule).
Cassette F11:	Slice 6, inferior.
Cassette F12:	Slice 7, superior.
Cassette F13:	Slice 7, inferior.
Cassettes F14-F15:	Lateral-most margin.

Part G, received in formalin and labeled consists of multiple soft and firm, brown-tan and yellow tissue fragments measuring 7 x 6.5 x 1.5 cm in aggregate. The specimen is trimmed and extensively searched for lymph nodes. Multiple candidate lymph nodes are found and submitted intact in cassettes G1-G5.

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 was performed on block F6.

The test for estrogen receptors is positive. There is strong nuclear staining in ~50% of tumor cells.

The test for progesterone receptors is positive. There is weak to moderate nuclear staining in ~15% of tumor cells.

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

An immunohistochemical assay was performed on block F6 using the CB11 monoclonal antibody to HER2/neu oncoprotein. The staining intensity of this carcinoma was 1 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 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.

Electronically signed out on

Other Specimens

Specimen Class: **Status:** Signed Out **Accessioned**
Signed Out:

Specimen(s) Received: Left Breast, Fine Needle Aspiration

Final Diagnosis

Left Breast, Fine Needle Aspiration: **Benign breast elements** (see comment).

Specimen Class: Status: Signed Out Accessioned
Signed Out:

Specimen(s) Received: Vaginal/Cervical/Endocervical, Thin Prep Imaged

Final Diagnosis

Vaginal/Cervical/Endocervical, Thin Prep Imaged

NEGATIVE FOR INTRAEPITHELIAL LESION OR MALIGNANCY.
Atrophic changes

SPECIMEN ADEQUACY:
Satisfactory for evaluation.
Transformation zone components are present.

Specimen Class: Status: Signed Out Accessioned
Signed Out:

Specimen(s) Received: Right Breast, Fine Needle Aspiration

Final Diagnosis

Right Breast, Fine Needle Aspiration: **Adenocarcinoma,** see note.

Procedure/Addenda for

ADDENDUM. **Date of Addendum.:**

Addendum Comment

An immunohistochemical test for estrogen and progesterone receptors as well as for HEr-2-neu was performed on the material submitted for cell block.

The test for estrogen receptors is **positive** . There is **strong** nuclear staining in **greater than 90%** of tumor cells.

The test for progesterone receptors is **Negative**. There is **no** nuclear staining in **100%** of tumor cells.

Result of HER2/neu test: This carcinoma is negative for HER2/neu oncoprotein over-expression on a scant specimen. *Repeat testing is recommended on the excisional specimen.*

An immunohistochemical assay was performed on the cell button using the CB11 monoclonal antibody to HER2/neu oncoprotein. The staining intensity of this carcinoma was **1** 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 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.

Specimen Class: **Status:** Signed Out **Accessioned**
Signed Out:

Specimen(s) Received: Cervical/Endocervical, Direct

Final Diagnosis

Cervical/Endocervical, Direct

NEGATIVE FOR INTRAEPITHELIAL LESION OR MALIGNANCY.
Atrophic changes

SPECIMEN ADEQUACY:
Satisfactory for evaluation; atrophic pattern with no identifiable endocervical/transformation zone component.
Cellular distortion secondary to airdrying artifact.
Cellular distortion secondary to mechanical artifact.

Specimen Class: **Status:** Signed Out **Accessioned:**
Signed Out:

Specimen(s) Received: A: 2:00 Right Breast, Fine Needle Aspiration, B: 5:00 Right Breast, Fine Needle Aspiration

Final Diagnosis

A. Right Breast, 2:00 o'clock, Fine Needle Aspiration: Lacatation changes; see comment.

B. Right Breast, 5:00 o'clock, Fine Needle Aspiration: Lacatation changes; see comment.

Specimen Class: **Status:** Signed Out **Accessioned**
Signed Out:

Specimen(s) Received: Right breast core biopsy

Final Diagnosis

Right breast, needle core biopsy: Breast tissue with gestational lobular change and suppurative inflammation; no in situ or invasive carcinoma seen. See comment.

Specimen Class: **Status:** Signed Out **Accessioned:**
Signed Out:

Specimen(s) Received: Right Breast, Fine Needle Aspiration

Final Diagnosis

Right Breast, 2:00 o'clock, Fine Needle Aspiration: **Atypical,** see note.

__Specimen Class: Status: Signed Out Accessioned:
Signed Out:

Specimen(s) Received: Vaginal/Cervical/Endocervical, Thin Prep

Final Diagnosis

Vaginal/Cervical/Endocervical, Thin Prep

NEGATIVE FOR INTRAEPITHELIAL LESION OR MALIGNANCY.

SPECIMEN ADEQUACY:
Satisfactory for evaluation.
Transformation zone components are present.

_____Specimen Class: Status: Signed Out Accessioned
Signed Out

Specimen(s) Received: Uterine contents

Final Diagnosis

Uterine contents, evacuation: Decidua with chorionic villi.

_____Specimen Class: Status: Signed Out Accessioned
Signed Out:

Specimen(s) Received: Right Breast, Fine Needle Aspiration

Final Diagnosis

Right Breast, Fine Needle Aspiration: **Lipoma;** see comment.

__Specimen Class: Status: Signed Out Accessioned
Signed Out:

Specimen(s) Received: Vaginal, Direct

Final Diagnosis

Vaginal, Direct

NEGATIVE FOR INTRAEPITHELIAL LESION OR MALIGNANCY.

SPECIMEN ADEQUACY:
Satisfactory for evaluation.

_____Specimen Class: Status: Signed Out Accessioned:
Signed Out:

Specimen(s) Received: Vaginal/Cervical/Endocervical, Direct

Final Diagnosis

Vaginal/Cervical/Endocervical, Direct
CELLULAR CHANGES WITHIN NORMAL LIMITS.

SPECIMEN ADEQUACY:
Satisfactory for evaluation. Endocervical cells present.

END OF REPORT