ULTRASOUND-GUIDED NEEDLE CORE BIOPSY OF THE AXILLA OFTEN SAMPLES SENTINEL LYMPH NODE
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BACKGROUND
Axillary lymph node status is an important prognostic factor in the assessment of breast cancer patients. Sentinel lymph node biopsy is standard of care for assessing clinically-node negative patients. More recently, ultrasonography has proven to be a valuable technique for screening the axilla. Nonhilar blood flow and/or lymph node cortical thickening are features considered highly predictive for metastatic disease. Axillary nodes with these findings are biopsied under ultrasound guidance. A positive biopsy results in complete axillary dissection whereas a negative biopsy is followed up with a sentinel node procedure to ensure adequate screening of the axilla. Our study aims to determine how often ultrasound guided lymph node biopsy samples the sentinel lymph node.

DESIGN
173 patients who underwent ultrasound–guided axillary LN biopsy were identified from the University of Chicago Pathology archives (2005 - 2008). Of these, 68 cases (39%) were negative for metastatic carcinoma. Subsequent sentinel node excisions from these 68 cases were reviewed to determine whether or not the sentinel node exhibited biopsy site changes.

RESULTS
All 68 patients with negative ultrasound-guided needle core biopsy underwent sentinel node biopsy (average 3 nodes removed; range 1-10) and 29 had additional non-sentinel nodes excised (average 1, range 1-3) in the vicinity of the sentinel node (taken due to accessibility at the time of biopsy). Ten of the 68 patients had a positive sentinel node on frozen section resulting in complete axillary dissection (average 16 additional nodes recovered). Changes consistent with prior ultrasound-guided biopsy were found in a sentinel node in 42 patients (62% of all cases reviewed), in a non-sentinel node in 6 patients (9%), and in a node present in the axillary dissection in 2 patients (3%). In the remaining 18 cases, a prior biopsy site was not identified and were presumed to be left behind in the remaining axillary contents in the patient.

CONCLUSION
Of the 68 patients with negative ultrasound-guided biopsy, ten had a sentinel node that was positive on frozen section. Of these, four cases exhibited biopsy site change in the involved node (C), but these changes were away from the focus of carcinoma (D).