The Z1071 trial does provide data informing a way forward toward a surgical approach to the clinically node-positive axilla determined by response to therapy.

Patients in whom two or more SLNs were found, 215 (40.9 percent) had a nodal pCR. Metastases were identified in the ALND specimen in 39 patients with negative SLNs; therefore, the FNR was 12.6 percent.

**Moving forward**

The Z1071 trial does provide data informing a way forward toward a surgical approach to the clinically node-positive axilla determined by response to therapy. Improvements in patient selection and approach are anticipated to help improve the performance of SLN surgery. With respect to patient selection, patients in the trial underwent axillary ultrasound (AUS) before and after chemotherapy. A secondary endpoint of the trial was to determine how the post-neoadjuvant chemotherapy AUS lymph node appearance affects the FNR and to determine how the AUS status correlates with residual pathologic disease. These critical data, which will determine if AUS has a role in selecting patients for SLN surgery, have not yet been reported.

It is also possible that molecular subtype may guide patient selection. Although the nodal pCR rates in clinically node-positive patients receiving neoadjuvant chemotherapy are 30 percent to 40 percent for all comers, the rates are highest in patients with hormone receptor-negative, high-grade tumors, and human epidermal growth factor receptor 2-positive tumors treated with neoadjuvant chemotherapy plus trastuzumab in whom axillary pCR rates of 74 percent have been reported. The Z1071 trial was not designed to address the impact of tumor biology on the SLN surgery FNR.

Surgical technique will also be critical. The Z1071 trial recommended use of dual tracers, which was done in 79.1 percent of patients. In these patients, the FNR was 10.8 percent versus...