

**30th Annual San Antonio Breast Cancer Symposium -- Abstract #2061**

**A retrospective analysis of the impact of oncotype DX low recurrence score results on treatment decisions in a single academic breast cancer center.**

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**Background:** Oncotype DX, a 21-gene recurrence score (RS) assay, predicts risk for distant recurrence among patients with lymph node-negative, estrogen receptor (ER)-positive breast cancer who are treated with tamoxifen. Patients with low RS (<18) derived no benefit from chemotherapy treatment. We hypothesize that using the Oncotype DX assay is cost-saving in early stage breast cancers with low RS.

**Methods:** Retrospective chart review of 260 consecutive patients with primary ER-positive, lymph node-negative invasive breast cancer, who had their tumors assayed using the Oncotype DX assay between November 2004 and March 2007 in a single institution. Patients were grouped into low RS (<18), intermediate RS (18-30) or high RS (> or = 31) groups. Patient age, tumor features, and treatment regimens were documented in each group.

**Results:** There were 120 patients (46%) with low RS, 93 (36%) with intermediate, 47(18%) with high RS. Among the patients with low RS, the median age at diagnosis was 54 years old. The median tumor size was 1.3 cm with median tumor grade Nottingham score of 5. Two patients had no treatment documented. 95% of the patients were recommended hormonal therapy only, with either tamoxifen or an aromatase inhibitor according to their menopausal status. Only four patients received adjuvant chemotherapy, all of which occurred within the first 12 months of the availability of the assay.

**Conclusion:** The Oncotype DX assay significantly decreased the recommendation for adjuvant chemotherapy to patients with low RS, indicating that the assay is being used as intended among oncologists in an academic breast cancer program. An economic analysis will be performed.