Evaluation of practice patterns in the treatment of node-negative, hormone-receptor positive breast cancer patients with the use of the Oncotype DX assay at the University of Pennsylvania.

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We evaluated changing practice patterns and frequency of chemotherapy (CTX) administration in patients (pts) with node-negative, hormone-receptor positive (N-,HR+) breast cancer with the advent of the Oncotype DX assay (Assay). All patients treated during calendar year 2003 were used as the reference group, and compared to patients evaluated in calendar years 2005 and 2006 after the Assay was used, and prior to the opening of the TailorRx study. Records of 1,213 consultations for early-stage breast cancer were reviewed, and 325 pts with N-, HR+ cancer were identified. 122 pts were evaluated in 2003, and 203 were evaluated in 2005-2006. Of the 203 identified in the period after the use of the Assay began, 129 had the Assay performed. Recurrence scores (RS) were available on 124. 64 pts (52%) had Low RS, 45 (38%) had Intermediate RS, 15 (12%) had High RS. All pts received recommendations for adjuvant hormonal therapy. CTX was given in 1 pt (2%) with a Low RS, in 12 pts (80%) with High RS, and in 14 pts (38%) with Intermediate RS. Pt characteristics were well-matched between 2003 and 2005-6 with respect to age, tumor size, and histologic grade. In 2003, CTX was recommended to 55% of pts, while in 2005-6 the percentage of pts for whom CTX was recommended was 25%. Pts evaluated in 2005-6 for whom no Assay was performed tended to be older and to have larger tumors. For these patients (n=74) the frequency of CTX recommendation was 42% The recommendation and use of adjuvant CTX in N-, ER+ pts declined significantly after the institution of the Assay in 2005. A cost analysis is in preparation.