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Effect of 21-gene recurrence score results on treatment recommendations in patients age 65 and older with lymph node-positive, estrogen receptor-positive breast cancer.

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Background: Results of recent Oncotype DX studies indicate that the recurrence score (RS) can identify patients with node-positive, estrogen receptor-positive (N+/ER+) breast cancer who may not benefit from chemotherapy. We performed a survey to characterize the effect of the Oncotype DX assay on adjuvant treatment recommendations in N+/ER+ breast cancer.

Methods: U.S. medical oncologists who ordered Oncotype DX for at least one patient with N+/ER+ breast cancer were asked to complete a web-based survey regarding the most recent N+/ER+ patient for whom the Oncotype DX assay was ordered. The survey was developed through cognitive interviews with medical oncologists, and an institutional review board approved the protocol.

Results: There were 160 completed surveys; this analysis focuses on the 59 surveys in which the patient was ≥ 65 years old. Most physician respondents were in community practices (76%), and they had a median of 9 years (range: 3-45) of practice experience. The median patient age was 71 years (range: 65-82). T1, T2, or T3 disease was reported in 58%, 39%, and 3% of patients, respectively. One, two, three, or 4+ nodes were reported in 58%, 31%, 7%, and 3%, respectively (unknown in 1 patient). Sixty-three percent of N+/ER+ patients had an RS < 18; 31% had an RS of 18-30; and 7% had an RS ≥ 31. Before obtaining the RS, oncologists had a treatment recommendation for 51 of the 59 patients: chemotherapy was planned in 27/59 (46%), endocrine therapy in 23/59 (39%), and other treatment for 1/59 (2%). After obtaining the RS, chemotherapy was eliminated in 23/51 patients (45%) and added in 7/51 (14%), for a 31% net reduction in chemotherapy.

Conclusions: For patients aged 65 and older with N+/ER+ breast cancer, the RS is used more often (but not exclusively) in patients with 1-2 positive nodes and T1 or T2 stage disease. Treatment recommendations for these patients were frequently changed by the RS, with an overall reduction in the recommendation for chemotherapy, a change that may result in more cost-effective care.