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The recurrence score and chemotherapy treatment in node-positive, ER+ early-stage breast cancer patients in Israel.

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Background: Recent *Oncotype DX* studies indicate that the recurrence score (RS) can identify certain N+/ER+ patients who may not benefit from chemotherapy. Clalit Health Services, Israel, was the first HMO outside the United States to reimburse the assay, and the RS has been used for treatment planning in N+/ER+ patients. We evaluated the relationship of the RS and actual adjuvant chemotherapy treatment in ER+ N+ patients.

Methods: Eligible patients with micrometastases, 1, 2, 3, or 4 positive lymph nodes were identified between March 2006 and September, 2009. Claims data were reviewed to identify actual treatment administered.

Results: 260 patients were eligible. 126 (48%) had micrometastases, 92 (35%) had 1 node, 36 (14%) had 2 nodes, 5 (2%) had three nodes, and 1 (<1%) had 4 nodes. Recurrence score results: Low RS group (RS<18), 59.2%; Intermediate RS group (RS 18-30), 34.6%; and High RS group (RS≥31), 6.2%. Chemotherapy (CT) was administered to 60 patients (23.1%) overall, and to 31% of the patients with 2-4 positive nodes. The proportions of patients who received CT increased with increasing RS group (Table). The proportions of patients who received CT increased with increasing nodal status group for patients with RS<18, but not for patients with RS 18-30 or for RS≥31.

Conclusions: The recurrence score was used primarily in patient with micrometastases, 1, or 2 positive nodes. Treatment decisions in these node-positive breast cancer patients appear to be influenced by both the RS results and the number of nodes.

Nodal status	Number of patients who received CT divided by the total number of patients, and the associated percentage			
	RS<18	RS 18-30	RS≥31	Total
N _{mic}	1/73=1.4%	12/41=32.6%	11/12=91.7%	24/126=19.0%
1 N+	7/59=14.8%	14/31=45.2%	2/2=100%	23/92=25.0%
2, 3, 4 N+	4/22=18.2%	7/18=38.9%	2/2=100%	13/42=31.0%
Total	12/154=22.2%	33/90=36.7%	15/16=93.8%	60/260=23.1%