

**Abstract #53:**

**Title:** Risk of distant recurrence using oncotype DX in postmenopausal primary breast cancer patients treated with anastrozole or tamoxifen: a TransATAC study.

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**Background:** The Recurrence Score (RS) has been validated for estimating residual risk of distant recurrence (DR) in ER+ node negative (N-) primary breast cancer patients receiving adjuvant tamoxifen. Aromatase inhibitors (AIs) are widely used for adjuvant treatment of ER+ disease in postmenopausal women. The RS has not been evaluated in patients treated with an AI.

**Method:** Tumour blocks were collected retrospectively from patients in the monotherapy arms of the ATAC trial under the TransATAC protocol yielding 1308 hormone receptor positive (HR+) blocks in UK patients for analysis (1). Cox proportional hazards model was used to test the significance of adding RS to a clinical model (age, tumour size, grade, treatment) and to Adjuvant! Online.

**Results:** 65 patients received chemotherapy, 4 were centrally HR negative and 8 did not start adjuvant therapy leaving 1231 evaluable patients of which 872, 306 and 53 were N-, N+ and N unknown in whom there were 72, 74 and 6 DRs, respectively. In the prospectively-defined primary multivariate analysis tumour size, grade and RS were each separately statistically significant in predicting time to DR in N- patients ( $p < 0.001$ , 0.003 and  $< 0.001$ , respectively). Similar results were seen in N+ patients. The 9-year rates of DR by nodal status for the pre-specified RS groups are shown in the table. RS showed statistically significant prognostic value beyond that provided by Adjuvant! Online in both N- ( $p < 0.001$ ) and N+ patients ( $p = 0.003$ ).

Nodal status	RS <18		RS 18-30		RS $\geq$ 31		Log-rank p-value for DR
	% of pts	9-yr DR rate	% of pts	9-yr DR rate	% of pts	9-yr DR rate	
Node negative	59%	4%	26%	12%	15%	25%	<0.001
Node positive	52%	17%	31%	28%	17%	49%	<0.001

**Conclusions:** Oncotype DX RS is an independent predictor of the risk of distant recurrence in N- and N+ HR+ patients treated with anastrozole or tamoxifen. The data are not predictive of a differential benefit between anastrozole and tamoxifen.

(1) Dowsett et al JCO 2008, 26, 1059.

