

The Oncotype DX® Breast test to guide management of node-positive oestrogen receptor-positive HER2-negative breast cancer patients: the United Kingdom experience

Poster Abstracts

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Goals: The Oncotype DX Breast Recurrence Score (RS) test is a 21-gene assay available in the United Kingdom to guide adjuvant treatment decisions for node-negative, oestrogen receptor (ER)-positive, human epidermal growth factor receptor 2 (HER2)-negative breast cancer. Although fewer data support its role in node-positive patients, mounting evidence suggests subsets of node-positive patients have good prognosis and do not benefit from chemotherapy. The Oncotype DX Breast Recurrence Score N+ Bridging Programme (PONDx) allowed early-stage ER+ HER2- breast cancer patients with 1-3 positive lymph nodes to access the assay in the UK. The impact of the RS result on decision-making was evaluated across 30 Institutions in the UK.

Methods: We prospectively collected data on lymph node-positive, ER-positive, HER2-negative breast cancer patients enrolled within the Programme between October 2017 and December 2018. Demographics, menopausal status, disease characteristics, RS, treatment recommendations pre- and post-testing and treatment received, were recorded.

Results: As of December 2018, 567 patients accessed the assay within PONDx. 562 patients (99.1%) were women. 118 (20.8%) were aged <50 years, 188 (33.2%) 50-59, 158 (27.9%) 60-69 and 103 (18.2%) ≥70. 367 patients (64.7%) were postmenopausal and 195 (34.4%) pre/perimenopausal. 389 patients (68.6%) had 1 lymph node involved, 130 (22.9%) 2 and 48 (8.5%) 3. 451 patients (79.5%) had ductal histology and 85 (15.0%) lobular. 388 patients (68.4%) had grade 2 disease and 99 (17.5%) grade 3. 233 tumours (41.1%) were <2cm, 303 (53.4%) 2-<5cm and 31 (5.5%) ≥5cm. 473 cases (83.4%) were also progesterone receptor-positive. RS was <18 in 316 patients (55.7%), 18-30 in 195 (34.4%) and >30 in 56 (9.9%). At baseline, chemotherapy had been recommended for 371 patients (65.4%), whereas based on RS it was suggested in 162 patients (28.6%) and given in 140 (24.7%). Conversely, out of 196 patients (34.6%) who were recommended endocrine therapy (ET) alone at baseline, 33 (16.8%) were suggested additional chemotherapy. ET alone was recommended in 242 out of 371 (65.2%) patients who were suggested chemotherapy at baseline.

Conclusions: Based on RS, chemotherapy recommendations changed in a significant proportion of patients, suggesting that the assay reduced the risk of over- and under-treatment in our UK-based population and confirming its relevant value in aiding decision-making.