

P283 COST-EFFECTIVENESS ANALYSIS OF THE 21-GENE BREAST CANCER TEST IN MEXICO

Poster Abstracts II

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Goals: The Oncotype DX[®] Breast Cancer Test is a validated 21-gene assay that predicts the likely benefit from adjuvant chemotherapy in patients with early-stage, N0–3, ER+ breast cancer. This test was shown to be cost-effective versus clinical practice in several countries however none of these studies were conducted in Mexico. The aim of this analysis was to evaluate the cost-effectiveness of using the Oncotype DX[®] test to inform adjuvant chemotherapy decisions in Mexico.

Methods: A Markov model was developed to make long-term projections of distant recurrence, survival, and direct costs for the eligible patients. Scenarios using standard care or Oncotype DX[®] to inform treatment recommendations for adjuvant chemotherapy were modeled based on a recent meta-analysis of studies investigating the decision impact of Oncotype DX[®]. Transition probabilities and risk adjustment were based on published landmark trials. Costs (2011 Mexican Pesos [MXN]) were estimated from the Instituto Mexicano del Seguro Social (IMSS) perspective based on published data identified by literature review. In line with Mexican pharmacoeconomic guidelines, future costs and clinical benefits were discounted at 5% annually. Sensitivity analyses were performed.

Results: Following Oncotype DX[®] testing, 29.5% of early-stage breast cancer patients were spared chemotherapy whilst 5.6% of patients received chemotherapy in addition to hormone therapy. Long-term modeling analysis showed that optimized therapy allocation following Oncotype DX[®] testing led to an improvement in mean life-expectancy of 0.068 years per patient and increased direct costs by MXN 1,707 per patient versus usual care. This equated to an incremental cost effectiveness ratio (ICER) of MXN 25,244 (US\$ 1,960) per life-year gained, well below the accepted cost-effectiveness threshold that equals the GDP per capita (i.e. MXN 142,843). In a secondary analysis of patients previously recommended chemotherapy, use of Oncotype DX[®] was associated with avoidance of chemotherapy in 46% of patients, leading to cost savings of MXN 27,414 (US\$ 2,129) per patient, with life expectancy maintained at the level expected with standard care.

Conclusion: Using the Oncotype DX[®] breast cancer test in the Mexican clinical practice is expected to be cost-effective in the whole eligible population and cost-saving if used selectively in patients that would be recommended chemotherapy in standard care. No significant relationships.