Goals: The aim of this study was to compare the Oncotype DX® Recurrence Score for invasive Breast Cancer with traditional clinicopathologic factors such as age, grade and Ki67 from real life cases in Greece as selected by Medical Oncologists.

Methods: The Oncotype DX® Recurrence Score was performed in 118 patients with HR+, HER2? invasive carcinoma of the breast. 62 of the patients were below the age of 50 and 56 were over the age of 50 years old. Ki67 was obtained by the histology report of each patient and was performed by the local pathology laboratory of each site. A cut-off of 14% was used to determine low vs high for this marker based on the ASCO/CAP guideline recommendations. 48 of the patients had a low (below 14%) Ki67 and 38 had a high Ki67 (higher than 14%), Ki67 was not available for 32 patients. 18 patients had a Grade I tumor, 73 had a Grade II tumor and 20 had a Grade III tumor.

Results: In total, 69 patients had a Low RS (58.5% of the patients) 42 had an Intermediate Score (42%) and 7 had a High RS (5.9%). Among the Low Ki67 patients 68.8% had a Low RS, 27.1% had an Intermediate Ki67 and 4.1% had a High RS. Among the High Ki67 population, 47.4% had a Low RS, 44.7% had an Intermediate RS and only 7.9% had a High RS. Among the Grade I patients 83.3% had a Low RS and 16.7% had an Intermediate RS of patient with Grade I had a High RS. Among the Grade II patients 54.8% had a Low RS, 39.7% had an Intermediate RS and 5.5% had a High RS. Among the Grade III patients 50% had a Low RS, 40% had an Intermediate RS and only 10% had a High RS. The distribution of the RS in patients younger than 50 years old was 59.7% had a Low RS, 33.9% had an Intermediate RS and 6.4% had a High RS. Similarly the patients over the age of 50 had 57.1% chance to have a Low RS, 37.5% for Intermediate RS and 5.4% chance for a High RS.

Conclusion: Our results indicate that there is no traditional marker such as Grade, age and Ki67 for ER+, HER2? patients that can predict the Oncotype DX® RS. No significant relationships.