**Objective:**

The objective of the current analysis was to assess the cost-effectiveness of lapatinib plus capecitabine versus capecitabine alone in human epidermal growth factor receptor-2-positive metastatic breast cancer patients from the third party payer perspective over a time horizon of ten years.

**Methods:**

A half cycle corrected Markov chain model comprising 3 health states (stable, progression and death) was developed to estimate the projected clinical and economic implications of Lapatinib. Transition probabilities were estimated based on the results from the EGF100151 clinical trial of Lapatinib. Health state utilities and major adverse events were obtained from published sources. Direct medical costs were obtained from the third party payer list. Costs (in 2013 EGP) and effects were discounted at 3.5% annually. One way sensitivity analyses were conducted.

**Results:**

The economic evaluation of lapatinib plus capecitabine as combination therapy resulted in additional cost of 1,597,796 EGP, with an incremental positive effect of 5.7 quality adjusted life years (QALY) or an incremental cost-effectiveness ratio (ICER) of 277,169 EGP/QALY gained. The overall survival of the two arms was found to have the greatest impact on the results.

**Conclusions:**

Compared with our willingness-to-pay threshold stated by world health organization for middle and lower income countries, the addition of lapatinib to capecitabine is not clearly cost-effective; and most likely to result in an ICER higher than the threshold limit.

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**References**


