COST-EFFECTIVENESS OF APREPITANT IN EGYPTIAN PATIENTS RECEIVING HIGHLY EMETOGIC Therapy FROM THE THIRD PARTY PAYER PERSPECTIVE

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Objective:
Cost-effectiveness of adding aprepitant to the standard regimen in Egyptian patients with chemotherapy inducing vomiting has not yet been established. The aim of the present study was to evaluate the cost-effectiveness of aprepitant as add-on therapy to the standard Egyptian regimen in patients receiving highly emetogenic therapy.

Methods:
A decision tree model was developed based on the Egyptian clinical practice, and was derived from published sources. This decision analytical model was constructed to assess the costs and consequences associated with aprepitant containing regimen compared with standard therapy for Chemotherapy-Induced Nausea and Vomiting (CINV). The clinical parameters were derived from a randomized trial previously published. The utility of the health states was derived using the available published data. Direct medical costs were obtained from the third party payer tariff in Egypt. Deterministic and probabilistic sensitivity analyses were conducted. All costs (in 2014 EGP) and outcomes were discounted at 3.5% annually.

Results:
The total quality-adjusted life-years (QALYs) of adding aprepitant to the standard regimen was estimated to be 0.0082, whereas that of the standard regimen was estimated to be 0.0072 (with a net difference of 0.001QALYs). The total costs for aprepitant plus standard regimen and standard regimen alone were EGP 414.25 and EGP 346.62 respectively (with a net difference of EGP 67.63). Thus, the incremental cost-effectiveness ratio (ICER) for aprepitant was EGP 66,004/QALY gained. The probability of complete protection and incomplete response of both arms were found to have the greatest effect on the results.

Fig. 2: Probabilistic sensitivity Analysis

Conclusions:
The present study concludes that adding aprepitant to the standard regimen is cost effective based on the threshold stated by world health organization (3xGDP/capita) for patients with severe vomiting after chemotherapy.

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References

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