COST-EFFECTIVENESS ANALYSIS OF Pazopanib (Votrient®) versus Sunitinib (Sutent®) for Renal Cell Carcinoma IN EGYPT

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Objective:
The aim of this study was to assess the cost-effectiveness of Pazopanib compared to Sunitinib as a first-line treatment for patients with metastatic Renal Cell Carcinoma (mRCC) from the perspective of Egyptian health care system.

Methods: A Markov state transition model was developed to perform a cost-utility analysis to compare the cost and health benefits of Pazopanib to that of Sunitinib in treatment of mRCC; a cohort simulation approach was used. The Markov model consisted of three health states—alive with no progression (pre-progression), alive with progression (post-progression), and dead. Expected lifetime costs (including medication costs, dispensing/administration costs, other costs associated with Pazopanib and Sunitinib treatment, routine follow-up, monitoring and supportive care costs, and total costs), life-years, and quality-adjusted life-years (QALYs) were calculated for treatment-naïve patients receiving Pazopanib and Sunitinib as a first-line treatment for mRCC; based on data from the Egyptian Health Insurance Organization. The model cycle length was set at 1.5months, which was chosen to accommodate the 4-week treatment cycle for Pazopanib and the 6-week treatment cycle for Sunitinib and to avoid the need for a half-cycle correction. The incremental cost-effectiveness ratio (ICER) for Pazopanib versus Sunitinib was calculated. All costs were estimated in Egyptian Pound (EGP).

Results:
The results of this cost-effectiveness analysis based on a survival analysis model employing data from 2 randomized phase III clinical trials comparing pazopanib with sunitinib suggest that pazopanib is cost-effective compared with sunitinib as a first-line treatment of patients with mRCC in the health insurance organization as we find that total cost corresponding to Votrient and Sutent are 100,542.58, and 130,088.94 and the net difference=29,546.37-
EGP and difference in QALYs is 0.006450567 and ICER=4,580,429.28-

Conclusion:
The Pazopanib was cost-effective compared to Sunitinib as a first line treatment for mRCC form the Egyptian health Insurance organization.

Source of financial support: NO funding was received

References:

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