ECONOMIC EVALUATION OF LIDOCAINE/TETRACAINE PATCH VERSUS LIDOCAINE/PRILOCaine CREAM FOR TOPICAL ANAESTHESIA BEFORE VASCULAR ACCESS IN EGYPT

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Objective:

The objective of the current analysis was to estimate the cost-effectiveness of lidocaine/tetracaine patch versus lidocaine/prilocaine cream for topical anaesthesia before vascular access from the Ministry of Health perspective.

Methods:

A decision analytic model comparing lidocaine/tetracaine patch versus lidocaine/prilocaine cream for topical anaesthesia before vascular access was constructed based on the current clinical practice in Egypt and was derived from published sources. The clinical parameters were derived from a double-blind, randomized, paired study. The utility of the health states was derived using the available published data. Direct medical costs were obtained from the Ministry of health tariff in Egypt. No discounting was performed. Probabilistic sensitivity analysis (PSA) was conducted.

Results:

The total quality-adjusted life-years (QALYs) of Lidocaine/Tetracaine patch was estimated to be 0.914147, whereas that of the lidocaine/prilocaine was estimated to be 0.826098 (with a net difference of 0.088049 QALYs). The total costs for Lidocaine/Tetracaine and lidocaine/prilocaine were EGP 93.19 and EGP 60.00 respectively (with a net difference of 33.19 EGP). Thus the incremental cost-effectiveness ratio (ICER) for Lidocaine/Tetracaine was EGP 376.95 /quality-adjusted life year. Results from PSA indicate that Lidocaine/Tetracaine had an 100% chance of being cost-effective at our EGP 70,000 per QALY threshold.

Fig. 2: Probabilistic Sensitivity Analysis

Conclusions:

The present study concludes that Lidocaine/ Tetracaine (Heated Patch Delivery System) is cost effective option for topical anaesthesia before vascular access when compared with lidocaine/prilocaine (Cream) based on the threshold stated by world health organization (3xGDP/capita) for low and middle-income countries..

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References