THE COST-EFFECTIVENESS OF ELTROMBOPAG FOR THE TREATMENT OF CHRONIC MODERATE TO SEVERE NON-CANCER PAIN IN SWEDEN

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OBJECTIVES: To assess the cost-effectiveness of tapentadol compared to oxycodone and morphine in patients with chronic moderate to severe non-cancer pain in Sweden

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COST-EFFECTIVENESS OF TAPENTADOL PROLONGED-RELEASE (PR) COMPARED TO OXYCODONE AND MORPHINE IN PATIENTS WITH CHRONIC MODERATE TO SEVERE NON-CANCER PAIN IN SWEDEN

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OBJECTIVES: To assess the cost-effectiveness of tapentadol compared to oxycodone and morphine as 1st line strong opioid therapy in chronic non-cancer pain (CNCP) patients in Sweden.

METHODS: A Markov transition state model over one year with cycle times of one month was built. Four health states were defined: ‘occurrence of adverse events (AEs) with need for medical treatment’, ‘withdrawal due to AEs’, ‘response to therapy’ and ‘death’. If patients did not adequately respond to tapentadol or comparators or withdrew, switching to alternative 2nd line opioid (oxycodone, morphine or transdermal fentanyl) was considered. After initiating 3rd line therapy, patients could stay on this therapy or die according to morbidity rate. Data regarding efficacy, tolerability and utility values (EQ-SD) were derived from clinical trials and published literature. Switch rates to subsequent opioid therapies and resource consumption were estimated by clinical experts. Costs were calculated from the societal perspective. Direct costs were calculated based on official Swedish prices/tariffs, indirect costs were calculated based on figures obtained from the literature and current wage rates. Costs and benefits were not discounted in base case calculation. Impact of selected parameters on the results was evaluated in one-way sensitivity analyses (OWSA). RESULTS: The analysis estimated that the mean expected, discounted lifetime (70 years) utility gain was 0.16 QALYs at lower costs than oxycodone and morphine. Tapentadol appears to be the most cost-effective option, however, in sensitivity analyses, the cost-effectiveness of tapentadol is likely to be the most cost-effective option, however, in sensitivity analyses, the cost-effectiveness of tapentadol is likely to be the most cost-effective option, however, in sensitivity analyses, the cost-effectiveness of tapentadol is likely to be the most cost-effective option.

Impact on results was evaluated in one-way sensitivity analyses (OWSA). RESULTS: Mean annual total costs per patient amount to €242,583 SEK (Swedish krona) for tapentadol vs. €247,813 SEK for oxycodone and €246,093 SEK for morphine. Tapentadol generates 0.4712 QALYs compared to 0.4518 QALYs for oxycodone and 0.4535 QALYs for morphine. More QALYs generated in the model reflect tapentadol’s better tolerability profile than comparators. Cost parameter comparing physician visits, co-medications and non-drug therapy costs revealed highest impact in OWSA. CONCLUSIONS: Tapentadol, once approved, will generate more QALYs at lower costs than oxycodone and morphine. Tapentadol appears to be the most cost-effective option in the 1st line therapy of CNCP patients in Sweden from a societal perspective.

THE COST-EFFECTIVENESS OF DULOXETINE IN THE TREATMENT OF FIBROMYALGIA IN THE UNITED STATES

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OBJECTIVES: To evaluate the cost-effectiveness of duloxetine for the management of fibromyalgia assessed from the perspective of a health care payer in the United States.

METHODS: A Markov model was used to evaluate the economic and clinical advantages of controlling fibromyalgia pain symptoms, considering duloxetine as an additional treatment option. The standard treatment sequence for fibromyalgia can provide additional patient benefits, which are cost-effective when compared to commonly adopted thresholds.

ASSESSING THE COST-EFFECTIVENESS OF PRIMARY PROPHYLAXIS FOR THE TREATMENT OF SEVERE HEMOPHILIA A

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OBJECTIVES: The objective of this analysis was to understand the economic consequences of different products in primary prophylaxis in severe hemophilia A patients.

Miners’ (2002, 2009) hemophilia economic Markov model was revised to compare two different factor VIII products—a full-length recombinant FVIII (Advate) and a B-domain deleted recombinant FVIII (FVIIIc Refacto AF). Differences in half life in a pharmacokinetic cross-over license study [1] with results submitted to EMA[2], this research evaluated the amount of clotting factor required to maintain the patient factor VIII trough levels above 1%. If a product has a shorter half-life, more clotting factor is required to prevent factor VIII levels falling below the minimum trough level.

METHODS: The time horizon was 2 years, and next factor VIII exchange was mandated if factor VIII fell below 1% for at least 2 days. The analysis used the amount of factor VIII required to maintain factor VIII levels above the 1% threshold. The model focused on factor VIII costs in the hospital setting, as this is the predominant cost. The model was built to be relevant to health care systems in the United States. The target population was defined as patients with severe hemophilia A and an annual factor VIII consumption of ≥50% minimum level. The Markov model was used to model the progression of patients from severe hemophilia A to less severe hemophilia A and to normal. Two strategies were compared—standard prophylaxis and continuous prophylaxis.

RESULTS: The analysis estimated that the mean expected, discounted lifetime (70 years) utility gain was 0.16 QALYs at lower costs than oxycodone and morphine. Tapentadol appears to be the most cost-effective option, however, in sensitivity analyses, the cost-effectiveness of tapentadol is likely to be the most cost-effective option, however, in sensitivity analyses, the cost-effectiveness of tapentadol is likely to be the most cost-effective option, however, in sensitivity analyses, the cost-effectiveness of tapentadol is likely to be the most cost-effective option.