COST-EFFECTIVENESS OF MIRTAZAPINE COMPARED TO FLUOXETINE IN THE TREATMENT OF MODERATE AND SEVERE DEPRESSION IN HUNGARY

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OBJECTIVES: To estimate the cost-effectiveness of mirtazapine, compared to fluoxetine, in the management of moderate and severe depression among outpatients in Hungary, from the society and Sickfund (OEP) perspective. METHODS: The economic analysis was based on clinical differences obtained from a six-week comparative trial with mirtazapine and fluoxetine, which were extrapolated to six months using assumptions derived from the literature. Decision models of the treatment paths and associated resource use were developed from clinical trial data, interviews with a Hungarian Delphi Panel (comprising of nine psychiatrists working in the outpatient setting) and published literature and were used to estimate the costs to society and to the Sickfund over a treatment period of six months. RESULTS: The total cost to Hungarian society was HUF 311,255 per mirtazapine-treated patient, compared to HUF 412,740 per fluoxetine-treated patient. Indirect costs (i.e. productivity loss) emerged as the main cost driver. In contrast the acquisition cost of antidepressants accounted for a minor part of the total costs. The total medical costs for the Sickfund were HUF 4,941 higher with mirtazapine than with fluoxetine (resp. HUF 107,429 vs. HUF 102,488). Using mirtazapine instead of fluoxetine for six months increased the proportion of successfully treated patients by 22% (from 15.6% to 19.01%). Consequently, the expected direct cost per patient successfully treated with mirtazapine was HUF 563,065 compared to HUF 412,740 for a fluoxetine-treated patient from the Sickfund perspective. The ICER for mirtazapine in comparison to fluoxetine is HUF 141,971. CONCLUSIONS: Since the ICER is lower than the ACER with fluoxetine (i.e. HUF 657,029) it might be concluded that treatment with mirtazapine is more cost-effective than with fluoxetine from a Sickfund perspective. From a society perspective mirtazapine appeared to be a dominant treatment over fluoxetine: a higher proportion of successfully treated patients for a lower total cost.

ESTIMATING COST-EFFECTIVENESS OF CONCERTA OROS IN ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD)—ADAPTING THE CANADIAN COORDINATING OFFICE FOR HEALTH TECHNOLOGY ASSESSMENT’S (CCOHTA) ECONOMIC MODEL OF METHYLPHENIDATE IMMEDIATE RELEASE VERSUS BEHAVIOURAL INTERVENTIONS FROM A PARENT’S PERSPECTIVE

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OBJECTIVES: Frequently economic evaluations of health technologies incorporate econometric models into the decision making process. CCOHTA published in 1999 a transparent model in ADHD that has been adapted to assess the impact of incorporating parent-rated outcomes using CCOHTA’s existing methodology. The adapted model also estimates the incremental impact from Concerta OROS, a new OD formulation of methylphenidate (MPH), used over MPH immediate release (MPH-IR) and behavioural treatment (BT). METHODS: First, the original model was re-constructed and validated to ensure all assumptions and calculations were incorporated correctly. Next, the model was adapted to include the following treatment arms—Concerta OROS 30mg/day OD, MPH-IR 30mg/day TID, BT. Most assumptions/ data from the original model were maintained except for the following: weighted mean difference (WMD) of parent ratings on the Conners IOWA Inattention/Overactivity subscale (IOWA I/O) were used in place of Conners Teacher Rating Scale (CTRS) hyperactivity index; all patients received behavioural interventions for a full year versus 6 months for those non-compliant to treatment; compliance rates were fixed based on literature; outcomes data came from published double blind, double dummy cross-over trial comparing Concerta OROS to MPH-IR to placebo (n = 68). Effectiveness was expressed in one point gain in IOWA I/O (= clinically relevant improvement). Analysis was conducted using DATA 3.5 by TREEAge. RESULTS: MPH-IR and Concerta OROS resulted in increases in both annual costs (+$600 CDN, +$713CDN respectively) and effectiveness (+0.71 point gain, +1.44 point gain respectively) compared to BT. Incremental cost-effectiveness ratios were $851/one point gain in IOWA I/O and $496/one point gain in IOWA I/O for MPH-IR and Concerta OROS respectively. CONCLUSIONS: Parent ratings can be adopted within economic models of ADHD. Under model assumptions, using parent generated outcome ratings, a combination of behavioural interventions and Concerta OROS dominated MPH-IR treatment. Further sensitivity analysis and drawbacks will be discussed.