Reviewer's report

Title: A modelled economic evaluation comparing atomoxetine with methylphenidate in the treatment of children with attention-deficit/hyperactivity disorder in Spain

Version: 1 Date: 20 October 2008

Reviewer: Hans Steiner

Reviewer’s report:

The aim of the present study was to estimate the cost-effectiveness of atomoxetine compared to methylphenidate (MPH) in the treatment of ADHD among children and adolescents. The study is based on an economic model to compare the costs and benefits of atomoxetine to that of either MPH or ‘no medication’ in the Spanish context. It thus adds essential information and directives on the interface between economy and medical treatment guidelines.

Child psychiatry is in great need of comparing cost efficacy of alternative treatments, especially in terms of ADHD, now that non-addictive and easy usable compounds become available. Although they are more expensive, the question whether it is efficacious and cost efficient to use a relatively new compound is important and should be explored.

When analyzing external validity, we miss information on decisions of ethics committees. Since the clinical data was based on a review of controlled clinical trials and other clinical literature, the study type can be described as a meta-analysis applying a specific economic model to the entity of specific existing data. It is of utmost importance to outline the limitations of meta-analysis studies, comprising the same potential for bias as the smallest of clinical studies. In this context, the statement that data was validated by international experts doesn’t seem sufficiently elaborated and needs more illustrations of the contents of these validation procedures.

In terms of internal validity, we would recommend providing more information on sensitivity analyses. Additionally, the fourteen possible health states included in the economic model are not described transparently enough. The four domains of which the health states are comprised should be depicted in more detail, elucidating which methods were used to gain information on descriptors referring to behavior during different time periods throughout the day, information concerning the child’s overall social well-being, attributes regarding medication regimen (e.g. frequency of administration) and medication-related adverse events.

Furthermore, it seems essential to give more information on the issue of the costs involving the non-drug using population.

We recommend the above mentioned changes before publishing the current
We are unable to fully evaluate the economic model and calculation procedures described in the paper; we suggest involving a statistical expert.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

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