Reviewer's report

Title: Comorbidities in ADHD children treated with methylphenidate: a database study

Version: 1 Date: 3 September 2012

Reviewer: Matthias Halldorsson

Reviewer's report:

Major Compulsory Revisions: None

Minor Essential Revisions: None

Discretionary Revisions:

1. It would be appropriate to state already at beginning of the paper why this is an important subject, especially the co-morbidity of methylphenidate users.

2. Discussion, paragraph 1: "Treatment incidence overall was 4.75 per 1000 children and adolescents in 2006 and was 3.3-fold higher in male than in female children. No directly comparable estimates for treatment incidence have been reported in the literature". May I here refer to a study that we did in Iceland: Zoëga H, Baldursson G, Hrafnkelsson B, Almarsdóttir AB, Valdimarsdóttir U, Halldórsson M. Psychotropic drug use among Icelandic children: a nationwide population based study J Child Adolesc Psychopharmacol. 2009 Dec;19(6):757-64. It reports both incident and prevalence figures according to age and sex.

3. Background, paragraph 1: As stated by the authors MPH is mainly used for the treatment of ADHD and the only other indication it is licensed for in Europe is the very rare condition narcolepsy. But why do they not omit those few individuals from the study? They have the diagnoses in the database.

4. Background, paragraph 1. It would have been interesting to get an idea of ADHD treated with other stimulants (amphetamines) or with other drugs such as atomoxetine in Germany as well as non-drug treatment of ADHD, even though, as stated by the authors, some under-coding of diagnosis in routine data in this data base may occur.

5. Statistical analysis, paragraph 1, line 6: Logistic regression adjusting for age as a categorical variable was used to calculate p-values for differences in the presence of comorbid diagnoses between users and the control group. Which age groups were used as categorical variables when correcting for age?

6. Discussion: Cardiovascular and other co-morbidity (P. 14): Here it would be appropriate to refer to the most recent studies done in response to a request by EMA and FDA after the discussion on stimulants and cardiac events: Winterstein et al. BMJ 2012 & Cooper et al. NEJM 2011.
Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no financial competing interests and no non-financial competing interests.

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