Author's response to reviews

Title: A retrospective study of antipsychotic drug switching in a pediatric population.

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Author's response to reviews: see over
Prof. Martin Teicher,
Section Editor,
*BMC Psychiatry*

13 September 2013

Dear Prof. Teicher,

Re: MS: 1877935576848243 – revised version

Title: A retrospective study of antipsychotic drug switching in a pediatric population

Authors: David Linton, B.Sc.; Ric M. Procyshyn, Pharm.D., Ph.D.; Dean Elbe, Pharm.D., Lik Hang N. Lee, Alasdair M. Barr, Ph.D.

We have enclosed the re-revised version of our manuscript with changes highlighted in red font. This cover letter also includes a point-by-point response to the one Reviewer’s comments (please see below).

We thank the reviewer for the constructive comments and have carefully addressed every single recommendation in preparing our revision.

Sincerely,

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The remaining problem is in the calculation of chlorpromazine equivalents. Basically, 2 mg risperidone, 5 mg olanzapine, 75 mg quetiapine, 60 mg ziprasidone, and 7.5 aripiprazole are ~ equivalent to 100 mg CPZ (Woods 2003). Hence, 1.17 mg risperidone is equal to 58.5 mg CPZ, not 0.52 mg as stated, and 10.77 mg olanzapine would be equal to 215.4 mg of CPZ, not 1.23 mg. Any therapeutic dose of an antipsychotic should be equivalent to hundreds of mg of CPZ, with optimal dosing in adults of about 300 mg for psychotic disorders.

WE APOLOGISE FOR THE ERROR IN OUR CALCULATION OF CHLORPROMAZINE EQUIVALENTS. THIS HAS NOW BEEN FIXED AND CORRECTED IN TABLES 1 AND 2, SO THAT ALL ANTIPSYCHOTIC DRUGS HAVE THE CORRECT VALUES.

Hence, the means and SDs for risperidone, olanzapine and quetiapine in CPZ equivalents should be 58.5 (39), 215.4 (96.6) and 261.36 (234.1) mg, respectively. This also means that the average dose of risperidone was very much lower than the average dose of olanzapine (t(13.1) = -5.73, p<10-4, Welch's t-test) or quetiapine (t(45.2) = -7.41, p < 10-8) in CPZ equivalents. This difference is probably quite meaningful clinically and should be discussed.

WE HAVE ADDED BRIEF SECTIONS TO THE METHODS, WHERE WE REPORT THAT THERE IS A SIGNIFICANT DIFFERENCE IN DRUG DOSES BETWEEN THE DIFFERENT DRUGS AND ALSO BETWEEN THE DIFFERENT DIAGNOSES (PAGES 6-7). WE PROVIDE A POSSIBLE EXPLANATION FOR THIS IN THE DISCUSSION (PAGES 8-9) WHERE WE POSIT THAT THIS IS DUE TO A GREATER USE OF LOWER-DOSE RISPERIDONE FOR DISRUPTIVE BEHAVIOR DISORDERS, WHILE OLANZAPINE AND QUETIAPINE ARE MORE COMMONLY USED FOR PSYCHOsis AND BIPOLAR DISORDER.