Reviewer's report

Title: Comparative study of paediatric prescription drug utilization between the Spanish and immigrant population

Version: 1 Date: 20 August 2009

Reviewer: Diane Wysowski

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Major compulsory revisions:

1. The authors state that drug utilization indices "were calculated for the studied population divided into groups by age, sex and foreign national or Spanish." However, the data are not presented by age and sex. These data should be displayed in a table since drug utilization is sex- and age-dependent. Large differences in the sex and age distributions of the Spanish and foreign-born children would by themselves produce differences in drug use. If the distributions by age and sex between the Spanish and foreign-born are statistically significantly different, the data in Tables 2, 3, and 4 should be stratified by age and sex, or the groups matched by age and sex, or adjusted for differences in age and sex. Statistical analyses could then be performed on the stratified or the matched data, or by using adjustment in a model.

2. The DID (doses per person per day) for the Spanish and foreign born children and percent differences in DID are given in Tables 2-5. Please explain in the text and table if these are the mean number of doses for a year's period since the numbers are too high to be the number of doses per person per day.

3. Please label the Tables so that the reader can readily tell if the numbers refer to means or some other measure.

4. Please explain clearly in the text how tests for statistical significance were performed on the drug utilization measures. Were the tests for statistical significance on the percent differences in the measure, or on a comparison of the means, or something else? Please explain clearly the choice of a parametric test instead of a nonparametric test.

5. The 10% in % co-payment in Table 2 should be changed to -10%. The -11% in %DDD generics should be changed to 11%.

6. The Abstract should state what the abbreviation DID means. Again, it does not seem realistic that the number of doses per person per day would be as high as they are stated to be.

7. The text under "What this paper adds" and "What does this study add" needs rewording (e.g., changing sanitary to health, autochthonous to native-born, accessibility problems to disparities, etc.).
8. The researchers should state that the data are cross-sectional and long-term drug utilization patterns were not studied.

Minor Essential Revisions

1. Please provide a reference for the WHO ATC classification system.

2. Were the drug utilization data for January to December 2006 or through December 2006?

3. The authors should comment on whether the results are applicable only to Aragon.

4. I suggest the Discussion be shortened as the reasons for the disparities in utilization between the two groups was not studied and is largely speculative.

Discretionary Revisions

1. I suggest that the Abstract mention the specific drugs with the greatest differences in utilization between the Spanish and foreign-born groups.

2. I suggest that the Abstract mention that the word children is defined as birth through age 14 years.

3. I suggest that the Introduction be shortened.

4. I suggest that the authors describe Aragon as a region of northern Spain comprised of three provinces. According to Wikipedia, it is not densely populated as it represents only 3% of the population of Spain, and it has experienced about 16% growth in population since 1960.

5. Out of curiosity, I wonder what the chief reasons for immigration to Aragon are and if the authors could please mention them.

6. Which drug(s) prescribed to children would be expected to have the most important effect on health outcomes?

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

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

Declaration of competing interests:

I declare I have no competing interests.