Author's response to reviews

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

Authors:

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Version: 2 Date: 27 September 2009

Author's response to reviews: see over
Dear Sir: as you can see below, I had a mistake and I sent, on Tuesday 22, the cover letter to another email.
We are sorry.
Sincerely

Rosa Magallon.
Luis Gimeno

De: Rosa Magallon [mailto:med000764@gmail.com]
Enviado el: martes, 22 de septiembre de 2009 14:09
Para: editorial@biomedcentral.com
Asunto: review article

Dear Sir:
We attach our responses to the reviewers and the revised manuscript. We are grateful for the reviewers’ suggestions and we trust our work has been improved by the modifications we have made through their implementation.

MS: 7643738022908289
Comparative study of paediatric prescription drug utilization between the Spanish and immigrant population
Luis A. Gimeno-Feliu, Francisco J. Armesto-Gómez, Rosa M Macipe-Costa and Rosa Magallón-Botaya

Thank you very much for your interest and kindness

Best wishes

COMPARATIVE STUDY OF PAEDIATRIC PRESCRIPTION DRUG UTILIZATION BETWEEN THE SPANISH AND IMMIGRANT POPULATION

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
Reviewer's report:
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
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.

The reviewer has correctly pointed out our error. In the abstract we include the definition: “Prescription-drug consumption is measured in Defined Daily Doses (DDD) and DDD/1000 persons/day/ (DID)”.

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

We have modified the tables by including the sentence “Rates adjusted by sex and age”.

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.
We have added the explanation: “We applied the central limit theorem for large samples. The DID variable has a normal distribution and we were therefore able to use Student’s t-test to compare these values between the immigrant and Spanish populations. P-values < 0.05 were considered statistically significant”.

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

As correctly pointed out, this was a typographical error. It has been corrected.

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.

As mentioned in our response to the second point, we have modified the text to explain this.

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.).

In response to the reviewer’s comments, we have reworded our explanations. They now read:

"What this paper adds"

What is already known about this topic?
There is not enough information about consumption of health resources from the immigrant paediatric population. Population studies could highlight disparities and explain variability in clinical practice.

What this study adds?
Pharmaceutical consumption from immigrant children in a public health system such as Spain’s, with universal health care, is very much lower than for native-born children. There are many differences, depending on country of origin and drug type. This fact entails relevant implications for the health planning and opens new research lines.

8. The researchers should state that the data are cross-sectional and long-term drug utilization patterns were not studied.

We have added this information to the Methods Section with the sentences: “The data collected are cross-sectional. Long-term drug utilization patterns were not studied”.

Minor Essential Revisions

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

We provide this information as reference No. 28 with the following link: http://www.whocc.no/atcddd/
2. Were the drug utilization data for January to December 2006 or through December 2006?

For the purpose of clarification, we have added the following information: “The period covered by the study was 1 January to 31 December 2006”

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

We have added the following to the Discussion Section: “Before proceeding to analyse the obtained data, we would mention here that considerations made in reference to them can be extrapolated to Spain as a whole, given that the characteristics of Aragon are similar with regard to the distribution of resources, health system management, immigrant population percentage and the social and demographic characteristics of the general Spanish population”.

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.

We accept the reviewer’s suggestion and have attempted to shorten this section.

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.

We have modified the abstract to include: “particularly with reference to bronchodilators and attention disorder hyperactivity drugs such as Methylphenidate”.

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

We have modified the abstract to include: “children aged 0-14 years”

3. I suggest that the Introduction be shortened.

We accept the reviewer’s suggestion. We have removed several paragraphs.

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.

We have added the following information to the introduction: “an autonomous region in northeastern Spain” We have also added the description given in response to point 3 to reflect that despite representing only 3% of the population of Spain, the percentage of immigrants is similar to the rest of the country.
5. Out of curiosity, I wonder what the chief reasons for immigration to Aragon are and if the authors could please mention them.

In response to the reviewer’s question, immigrants have been particularly attracted to Aragon, among other reasons, because the region is peaceful and prosperous. At the time of the study, there were great opportunities for employment in agriculture, construction, tourism and domestic service. There is relatively little inequality or racism, and the standard of living is higher than the Spanish average. Owing to space restraints, we feel it is not necessary to mention this in the text.

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

Methylphedinate is probably one of the worst-prescribed drugs and one with the most side effects. However, this will be the subject of a forthcoming study.

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.
Reviewer’s report
Title: Comparative study of paediatric prescription drug utilization between the Spanish and immigrant population
Version: 1 Date: 1 September 2009
Reviewer: Karen L Rascati

Reviewer's report:
- Minor Essential Revisions
  Need to spell out terms in abstract (e.g. DID)
  Need to emphasize one region in Spain looked at not all of Spain
  Need editorial changes to clarify writing

Level of interest: An article of importance in its field
Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:
I declare that I have no competing interests

Given that the revisions suggested by the reviewers are similar to the previous reviewer’s comments, they have already been addressed.