Author's response to reviews

Title: An integrative review of the side effects related to the use of magnesium sulfate for preeclampsia and eclampsia management

Authors:

Jeffrey M Smith (jsmith@jhpiego.net)
Richard F Lowe (rlowe@vsinnovations.org)
Judith Fullerton (jfullerton@san.rr.com)
Sheena M Currie (scurrie@jhpiego.net)
Laura Harris (lharris6@gmail.com)
Erica Felker-Kantor (e.felker.kantor@gmail.com)

Version: 3 Date: 2 January 2013

Author's response to reviews: see over
Author's response to reviews

Title: An integrative review of the side effects related to the use of magnesium sulfate for preeclampsia and eclampsia management

Authors:

Jeffrey M Smith (jsmith@jhpiego.net)
Richard F Lowe (rlowe@vsinnovations.org)
Judith Fullerton (jfullerton@san.rr.com)
Sheena M Currie (scurrie@jhpiego.net)
Laura Harris (lharris6@gmail.com)
Erica Felker-Kantor (e.felker.kantor@gmail.com)

Version: 2 Date: 6 December 2012

Author's response to reviews: see over
An integrative review of the side effects related to the use of magnesium sulfate for preeclampsia and eclampsia management.

We are grateful for the very positive reviews of this manuscript. We have revised the manuscript in response to essentially all of the several helpful editorial suggestions and methodological recommendations offered by reviewers. Our exceptions, with rationale, are specifically noted in the table that follows.

<table>
<thead>
<tr>
<th>Reviewer Comment</th>
<th>Our response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reviewers # 1, 2, and 3 questioned why we restricted our review to low-and middle-income countries. Reviewer #1 requested that we include high-income countries in the overall analysis, and report sub-analysis for low- and middle-income countries.</td>
<td>The restriction of this review to studies conducted in low- and middle-income countries was our precise intention, given that large numbers of practitioners and health systems, particularly in low- and middle-income countries, have been slow to scale up the use of MgSO4. This is in part due to a general perception that magnesium sulfate is a dangerous drug, with common and unmanageable side effects. We excluded high-income countries because treatment approaches are different in these health systems (e.g., use of infusion pumps; lower patient/staff ratios for symptom monitoring); therefore there is far less reluctance to use this drug in those higher-resource settings. We included this justification in the methods section of the revised manuscript. We acknowledge the suggestion of Reviewer #1, but feel it is not consistent with the intention of this manuscript. A second manuscript could be written on that topic at some future time.</td>
</tr>
<tr>
<td>Reviewer #1 noted confusion about terminology “study groups” and “studies.”</td>
<td>Several of the studies had more than one subject group (e.g., comparison of two regimens). We edited the terminology of both abstract and manuscript to make this point clear to the reader.</td>
</tr>
<tr>
<td>Reviewer #1 noted confusion with use of the term “observational studies” in the narrative, when compared to Figure 1.</td>
<td>We thank the reviewer. We found this inconsistency and corrected it in Figure 1, which now reads “medical record reviews”. We edited the narrative to indicate that all studies included in this analysis were prospective in nature, comparing the effects of treatment (observational) or comparing the efficacy of different...</td>
</tr>
</tbody>
</table>
Reviewer #1 and #3 questioned our assumption that if a certain complication was not reported it did not happen.

- *This is a biased approach that may have serious impact on the results of their observation and the validity of the conclusion of this type of study.* (#3)
- *Reporting only the overall incidence rate among all study groups artificially lowers the incidence rate without any proven basis.* (#1)
- *Why not to report the incidence of a specific side effect among the study groups it was reported in.* (#1)

We acknowledge the valid concern of the reviewers, and have made editorial additions to the manuscript to provide the rationale for our decision (unchanged in this revised manuscript). The added language is expressed in the discussion section as a limitation of the study.

Reviewer #3 requests a number of procedures that are essential components of a report that has used systematic review methodology (PRISMA statement).

We did not conduct a systematic review. We used the methodology of an integrative review, and had both defined that method and offered reference citations in the original manuscript. We retained that same language in this revision. The requests of Reviewer #3 are not relevant to the integrative review methodology.

Reviewer #3 points to terminology “number needed to treat” and “number needed to harm”, suggesting that we used the incorrect term in Table 6.

We edited the variable name in Table 6, retaining our original language, but also amending the text to include the number needed to harm language. We believe both the positively and negatively stated language offer assistance to the reader to understand the important point presented in the table.

We trust that we have responded appropriately to each concern, and look forward to publication of this article.

Best professional regards,

Jeffrey M. Smith  
Director,  
Maternal Health  
Jhpiego / Johns Hopkins University