Author's response to reviews

Title: Management of Neonatal Hyperbilirubinemia: Pediatricians' Practices and Educational Needs

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Version: 4 Date: 17 January 2006

Author's response to reviews: see over
The Editor
BMC Pediatrics

Re: Manuscript # 9652835907950273
Article title: Management of Neonatal Hyperbilirubinemia: Pediatricians' Practices and Educational Needs
Authors: Anna Petrova, Rajeev Mehta, Gillian Birchwood, Barbara Ostfeld and Thomas Hegyi

Dear Sir/Madam,

We are in receipt of your letter regarding the revisions required to the above-mentioned manuscript and the enclosed comments from the experts in the field who evaluated the manuscript. Please thank the reviewers on our behalf for their vigorous analysis and very valuable suggestions.

Response to Dr. Thomas B. Newman

A few final suggestions:
1. I would include the month and year of the survey in the abstract, since that is all many readers will read, and things like use of TcB measurements are probably changing fairly rapidly.

   Answer: The correction has been made.

2. I don’t think studies (ref 3 and 4) have shown that compliance with guidelines prevent kernicterus.

   Answer: The correction has been made (see Introduction). The exact words representing the opinion of ref.3 and 4 have been used. For example, Drs. Newman and Maisels wrote in their article (ref.4) “…case reports can provide an early warning system for a change in practice that might be hazardous, and are worth examining carefully in an effort to determine the root cause of any adverse outcome. Were the guidelines followed?”

3. Page 4 line 9-put discussion of refs 6 and 7 in separate sentences-as is looks like the 54% adherence to the guideline was part of ref 6.

   Answer: The correction has been made.

4. Middle of page 9: “a small or moderate degree of belief” is enclosed in quotes, which is misleading. Unfortunately the question does not distinguish between strength of belief and strength of risk factor. For example, I believe to a very high degree that jaundice noted at the time of discharge is a risk factor to a small degree. Of cause you’re stuck with how the question was written, so just report it accurately. I would make the heading to Table 3 include the actual question:
Answer: The quotes have been omitted and the Table 3 heading has been changed in accord with your suggestions.

5. There is an undercurrent of disapproval of some of the respondents’ answers that is not justified. Since TSB peaks at 3-5 days and most babies get jaundiced, it is in fact totally reasonable (and what I do) to other TSB levels selectively based on degree of jaundice and risk factors.

Answer: We agree with your comments. However, the fact was that not all the respondent pediatricians showed the use of reasonable strategies for postdischarge bilirubin testing for infants with clinical jaundice.

6. Lack of use of TcB levels is probably more related to the price of the instruments that to concerns about accuracy.

Answer: The cost-effectiveness of TcB measurements has not been studied and the reimbursement for the TcB measurements is still an open question. Therefore, your opinion regarding the low activity among the pediatricians for the use of TcB measurements for the assessment of bilirubin is a very reasonable viewpoint. However, our survey questionnaire did not address this issue. We will include this question in our next survey. Despite this, we have incorporated your opinion regarding the cost of TcB measurements in this manuscript.

7. As noted in our previous review, the apparent low threshold for concern about kernicterus and willingness to do an exchange transfusion at TSB levels well below those recommended by the AAP are the most important results of the study and should be highlighted.

Answer: Thanks for this suggestion. The exact sentence that you kindly provided in the review has been used (see Discussion, last para).

8. I’m still not happy with the figures. Figure 2 now matches figure 1 and is better than it was, but both these figures are displaying numbers that add to 100%, exactly as do the numbers in Figure 3. So why not make Figure 1 and 2 match Figure 3?. The trouble with the current format is what it would fit better if what were being plotted were the proportion at each level in whom the treatment was recommended. Some readers may thusly misinterpret the figures.

Answer: We have changed Figure 1 and 2 in accordance with your suggestions (see Figure 1 and 2). However, because the threshold for TSB is associated with age (hours), the data became difficult to present. If the new graphs are not to your liking, we can still use the previous figures.

9. Last page of text: Is BMC part of BMJ journal?
**Answer:** We have no explanation as to how this message regarding BMJ got generated. It most certainly does not belong here as we submitted the manuscript to the BMC-series of journals and not the BMJ. We have therefore deleted that particular paragraph.

**P.S. Dr. Petrova’s e-mail address looks like it has a v replaced by r by mistake.**

**Answer:** I was also not happy with my e-mail address (petroran@umdnj.edu). However, for some reason this address has been assigned to me by the UMDNJ computer system, and is correct.
Response to Dr. Claudio Tiribelli:

Dear Dr. Tiribelli,

We have tried to address all your suggestions in the changes made since the previous review. Thanks a lot for your opinion about our manuscript.

Sincerely,

Dr. Anna Petrova
Response to Dr. Fruhling V Rijsdijk:

Response Bias

Reviewer B pointed out that there is little information on how response bias could have influenced the results and whether there was response bias. The authors replied that a 49% response rate is acceptable and in accordance with many survey studies. That may well be, but I don’t think that this is an appropriated answer to the reviewers concern. I don’t think he meant that a “low” response rate is introducing the bias perse, but that a bias in the ‘type’ of respondents (and therefore non-respondents) could have introduces a bias.

Although the authors mention in the Method section that information on demographic characteristics was unknown to them unless the questionnaire was returned, they do provide a table with a comparison of demographic characteristics of the total population of AAP fellow in the US versus respondents. It shows that the respondents are pretty representative for characteristics like gender and age (a very detailed sub-classification is given for age).

However, what if these characteristics (gender, age) are not the important ones to introduce bias? It is possible that variables like SES of area and income level could more relevant for the traits under study. If e.g. SES of area is potentially important to (1) some causes of Jaundice (e.g. inadequate liver function due to infection possibly by malnutrition during pregnancy or other factors) and (2) available treatment methods and time, then response bias might affect certain study parameters and this should be discussed in the limitation section.

The only information of the non-responders available would be the post-code. From these it is possible reflect the practice area of the non-responders.

**Answer:** The age of the pediatricians is the most important variable that may influence the physician’s practices because it reflects the year of training and perhaps knowledge about current practice guidelines. The SES status of the population was not studied. Moreover, I did not think that the use of practice guidelines by the pediatricians was dependent on the SES of the infants in their practice.

Results

Table 1: It’s absolutely not clear which significance test the p-value in the last column refers to. Is it a p-value for 1 specific comparison? This should be stated in the results section and/or noted in the table. Same is true for Table 2. The p-values in Table 4, are clear.

**Answer:** The correction has been made. The description of the P-value as representative of the differences in proportion (Chi-square test) and continuous variables (analysis of variance) is presented in the Tables.
Figure 2, pg 8, AAP recommendations are described in the text as 20, 25 and 25 TSB (mg/dL), however, in the note to the figure 2 you use ?20? 25 and ?25. Please check.

Answer: The correction has been made (see Results). However, we did change the presentation of Figure 1 and 2 in accord with the first reviewer suggestions.

Thanks a lot for your review.

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