Author's response to reviews

Title: Recent trends in publication of basic science and clinical research by United States investigators in anesthesia journals

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RESPONSES TO REVIEWER COMMENTS

Reviewer #1 (Dr. Bould)

Major Compulsory Revisions

We performed individual Chi square tests between two groups (for example, 2001 versus 2004, then 2001 versus 2007, 2001 versus 2010, et cetera). Thus, we did not perform multiple group Chi square tests (as suggested by the reviewer) in which all the years were compared simultaneously. Correction for multiple comparisons is not required because such comparisons were not conducted. I revised the statistical analysis section modestly to clarify this issue.

Minor Essential Revisions

1. I included references to the papers suggested by the reviewer. I am somewhat hesitant to include the Joachim Boldt reference (Anesth Analg 1999;88:1175-1180) because of the major ethical problems that were encountered and made public about this author. However, the paper in question did not require IRB approval and, to my knowledge, has not been retracted. I cited it because it is frequently referenced in the Bould et al manuscript (Anaesthesia 2010;65:799-804). The reviewer’s data certainly supports ours, as we demonstrate that US publications represented approximately 18.3% of the world total for 2007 alone compared with the 19.3% reported by Bould et al in 2007 and 2008.

2. The journal’s Guide for Authors specifies that the Methods section should be located at the end of the paper.

3. The reviewer is correct that there are 20 journals with IF > 1 in the 2010 Journal Citation Report. We forgot Schmerz (IF = 1.170), which is published in German. I corrected this error in the revised manuscript.

4. The reason for this decision was very simple. There are a total of 20 journals listed on the first page of the 2010 Journal Citations Report for the “anesthesiology” subject category. When these journals are ranked by impact factor, all of the journals on the first page had IF > 1, whereas those listed on page two had IF < 1. Thus, we decided to evaluate those journals listed on page one of the Journal Citations Report ranking. I modestly revised the manuscript to reflect this choice. We agree that some papers published in journals with low impact factors may be highly cited. I included commentary about this issue in the revised Discussion as another potential limitation.

5. I’ve reversed the order of 1980 and 2000 in the revised text at the reviewer’s suggestion. Thank you for catching this error.

6. I have added percentages to tables 1 and 2 as requested by the reviewer.

Reviewer #2 (Dr. Moppett)
Major Compulsory Revisions

1. We included only studies in which original data were collected. Meta-analyses were excluded as a result, following the methods of Feneck et al (Anaesthesia 2008;63:270-275). Our objective was to closely follow previous methods so that we could draw meaningful comparisons between our results and those of other studies. We agree that some investigators consider meta-analyses as research per se, but these studies do not collect and analyze original data because the results of other investigations are collated and reanalyzed. I included a brief explanation of this point in the revised manuscript.

2. I further qualified the Discussion to reflect the reviewer’s concerns. The reviewer is correct that US researchers may indeed have switched to submission to journals that are not directly related to anesthesia per se. We have included the following comments in the revised Discussion. “Many anesthesiologists are active in pain and critical care medicine research and, as a result, often publish their results in journals dedicated to these subjects. Indeed, critical care medicine, chronic pain medicine, and pain science research publications have been identified as the most highly cited papers in the field as a whole (reference to Tripathi, BMC Anesthesiol 2011). As a result, our study may have underestimated US research production because American authors may have shifted their submissions away from anesthesiology-specific to subspecialty journals. Additionally, US anesthesiology researchers have been encouraged to submit their best work to high profile journals (e.g., New England Journal of Medicine, JAMA) as a means to enhance the overall visibility of the specialty in the medical community (reference to Schwinn and Balser, Anesthesiology, 2006). Such an effort by American anesthesia researchers to publish in high impact journals may have also resulted in an underestimation of total US research output in our analysis. Nevertheless, we specifically attempted to follow the methodology of other investigators who have examined this subject to allow us to draw meaningful comparisons between our results and those of previous studies.”

Minor Essential Revisions

3. I agree that the term “productivity” is potentially contentious. I have removed the word from the revised manuscript. Instead, I use the word “production” in specific reference to research output.

Discretionary Revisions

4. The correlation between US authorship and impact factor was drawn from 2010 data. I clarified this detail in the revision. The correlation was relatively weak, but was statistically significant. Obviously, I have no interest in entering into “the chicken versus the egg” argument! American authors are somewhat less interested in journal impact factor than their European counterparts, but it’s still clear that many US researchers drive their work toward higher impact journals (unlike this writer, who feels that impact factor is essentially meaningless when all research is equally available on the internet). Personally, I think that such a discussion of the factors driving submission to certain journals would distract from the main objectives of the paper, that is, how much do US researchers publish and where do they publish it.
5. I've included references to Bould’s and Tripathi’s work at the suggestion of the reviewer.

6. It is certainly true that investigators sometimes move from one institution to another. We were only interested in the location of the corresponding author of each paper when it was first published.