Author's response to reviews

Title: National audit of post-operative management in spinal surgery

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Dear Sir/Madam

The following changes have been made to the paper in response to the points raised by the reviewers.

Reviewer #1 (Baxter)

1a. We have clarified the mention of places of work to distinguish between NHS and private hospitals.

1b. We have now made reference to Christensen's work in the last paragraph of the Introduction.

2a. We sampled all surgeons registered with either one or both societies but took care not to send duplicate questionnaires to those registered with both organisations.

2b. We make no claim that we approached all individuals in the UK who undertake spinal surgery (because it is very difficult to identify this group) but, had we done so, the range of practice regarding post-operative care cannot be smaller than that we have demonstrated.

3a. We have amended the Methods to indicate that we sent a second questionnaire and reminder letter to non-responders one month after the initial survey.

3b. The principal reason for the 12 forms being rejected was that the surgeon had retired. However a small proportion of forms were returned incomplete.

4,5. These address same issue. All graphs have been replaced by a table summarising our findings.

6. We have not adopted this suggestion as the text makes the denominator clear and, in our view, adding counts alongside each proportion would only lengthen the paper without adding information.

7. We have added a statement in the Introduction to clarify this. As all of the studies referred to in the review by Ostelo et al review in 2003 were published by 2000, this information was available to surgeons at the time of our survey.

Reviewer #2 (Greenough)

1. The reviewer suggests that 'confounding' by (mix of) procedures largely explains the apparent variation between surgeons and their patterns of practice that is evident in our data. However, we did not have any responses from surgeons who performed one operation exclusively; all respondents undertook a mixture of spinal operations. Further, the text contains a sentence to indicate that 'None [of the respondents] indicated that their practice varied depending on the surgical procedure performed.' We have added a sentence to the first paragraph of the Discussion to indicate that differences between procedures are unlikely to have contributed importantly to the range of practice regarding post-operative management that our survey has revealed.

2. We have not reported mutually-exclusive categories of sites of practice as this would substantially increase the length of the list and numbers in particular categories would be small. We have adjusted the text (first paragraph of Results) to indicate that only three surgeons worked exclusively in private practice and that most worked in more than one setting.
3. The text acknowledges (third paragraph of Results) that use of corsets may be associated with un-instrumented fusions, and acknowledges that we did not explore this relationship in the questionnaire.

Reviewer #3 (Maher)

This reviewer is concerned about our modest response fraction. The central finding of our study is the wide range of practice among spinal surgeons regarding post-operative care and advice. While the response to our survey was only 61%, the broad range of practice that we demonstrate could only increase had participation been higher.

As we noted in regard to point number 2 raised by Reviewer #1, the same observation about extent of apparent variation applies to expansion of our sampling frame beyond that of self-described 'spinal surgeons' and those surgeons with a special interest in back pain. Indeed, a priori, one might expect even greater variation among a wider group of surgeons who sometimes undertook spinal operations in addition to their other work, than among members of a sub-speciality. But, in any case, with any expansion of the sampling frame, the range of practice regarding post-operative care cannot be smaller than what we have demonstrated, even if modal practice is more sharply defined.