

We are aware that our findings are disappointing to clinicians that administer interventional procedures for chronic spine pain, and have carefully considered all Rapid Responses submitted to the BMJ.

The main concern raised by the letter you refer to seems to be that none of the 132 trials of interventional procedures for chronic spine pain should be statistically pooled, and only narrative synthesis is appropriate.

We did pool outcomes across trials of the same types of procedures, stratified by the presentation of complaint (axial or radicular pain), and then explored for heterogeneity. Our protocol was peer-reviewed and published (<https://pubmed.ncbi.nlm.nih.gov/34244262/>), and pre-registered on PROSPERO. We have used a similar approach for several prior reviews and associated guidelines (e.g., refs 1-4), which increased generalisability of findings, improved precision of effect estimates, and facilitated subgroup analyses (5).

Both our network meta-analysis and guideline underwent rigorous peer-review before publication, and we have committed to making our data freely available to any interested persons.(6)

The letter calling for retraction of our studies acknowledges that “interventional spine procedures are not universally effective and that careful patient selection is essential”, but does not provide evidence to support subgroups of patients that are likely to benefit. Further, secondary analyses of clinical trial data has been unsuccessful in identifying responders (e.g., ref 7,8).

We agree with Professor Ballantyne’s statement: “If spine injections really do not work for the majority of patients with chronic back pain, even those with identifiable lesions, do we really want to perpetuate their use? Surely, what we actually want is to carry on doing the research that might help pinpoint exactly which patients do benefit.”(<https://www.bmj.com/content/388/bmj.r179/rapid-responses>)

If some clinicians believe that they can correctly identify patients with chronic spine pain who will benefit from interventional procedures, we believe they should undertake high quality sham-controlled trials to provide evidence. As we note in our guideline, such evidence would alter our recommendations.(9)

Best Regards,

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## References

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