Reviewer's comment on “Five-year outcome of surgical decompression of the lumbar spine without fusion” by Mannion AF, Denzler R, Dvorak J, Grob D (doi:10.1007/s00586-010-1535-2)

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This paper explored the long-term outcome of a cohort of patients undergoing decompression surgery who were recruited into an RCT exploring the use of post-operative physiotherapy. The earlier findings noted no differences between groups, so the groups were combined to determine the long-term outcome of the surgery at 5 years. Statistically, it may have been more eloquent to have used a regression model that included a term for the treatment groups which would identify that there were no differences between the original two groups after 5 years—the end result, however, may have been the same. Further, it is worth noting that the population presented in this paper may not be reflective of usual practice in many clinics as they were invited to participate in a trial evaluating types of post-operative physiotherapy and as such this may have attracted more pro-active patients interested in the intervention arms; indeed, an inclusion criterion was willingness to comply with the intervention and the absence of co-morbidities affecting active rehabilitation and a such may not be truly representative of the typical ageing population.

Increasingly long-term outcomes are being expected of many clinical trials in back pain and spinal surgery as well as for clinical cohorts; however, this study adds credence to previous work on the outcome of decompression surgery which suggests that many of the key outcome namely function and pain demonstrate an initial dramatic reduction in the first 6–12 weeks followed by a plateau in these

outcomes [1, 2], thus questioning the need for follow up beyond 1 year which can be costly and time consuming. This paper is important as it strengthens this argument particularly due to the low loss to follow up at 1 year, less than 5%, which is impressive and the authors should be commended on this and perhaps offer some advice to others on how to achieve such high rates of return. This good follow-up rate, however, has to be moderated by the fact that patients in the trial undergoing revision surgery were removed from the final analysis and these accounted for 24% of the population. Also key factors such as prior surgery (only fusion procedures were excluded), gender, age and surgeon were not factored into the statistical analysis and their exploration may have proven interesting.

Increasing people are questioning whether trials and studies are using the right outcomes, with a vogue towards other approaches including goal-setting techniques [3–5]. Patients make the decision to have surgery for a range of reasons and limitation in function and pain can be clear reasons, but functional aims and goals vary considerably between patients and behaviours and response to pain sensations is known to be fraught with problems. This study has included many standard functional scales and measures of outcome; however, the question of whether these are the right and most appropriate outcomes is the topic of much current debate in the spinal community.

An important conclusion and perhaps understated use of this paper is the ability of the findings to inform patient and indeed surgeon educational materials about the potential success of their surgery and what they can expect from surgery which is an area that is sorely in need of attention [6], particularly if this can be translated into clear messages for patients considering surgery. Whilst this knowledge may not influence their outcome, it can improve their satisfaction and health care experience.

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