

Response to the Letter to the Editor: Does the Risk of Death Within 48 Hours of Hip Hemiarthroplasty Differ Between Patients Treated With Cemented and Cementless Implants? A Meta-analysis of Large, National Registries

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To the Editor,

We thank Pengfei Shi and colleagues for their letter to the editor [5] about our meta-analysis based on national registries [1]. It is always exciting to exchange scientific views with prominent international colleagues.

Regarding the concern raised by Shi et al. in their letter [5] about the databases searched: Our professional library expert on electronic search-string had recommended those databases that we

used, and that approach is commonly used in meta-analyses in orthopaedics and other disciplines.

Concerning the two additional national studies they noted: Kristensen et al. [3] was well known to us. We commented on their paper in an earlier letter to the editor to *Clinical Orthopaedics and Related Research*® [2]. In accordance with the exclusion criteria we outlined in our study [1], we took care to avoid counting the same patients' data more than once by trying to avoid repeated data extraction from the same registries. To our knowledge, there is no international consensus on how to handle repeated publications from the same registries; we felt it was appropriate to include one representative publication from each registry. Based on that, we chose the original paper on perioperative mortality by Talsnes et al [6], and therefore excluded the publication from the same

(expanded) population by Kristensen et al [3]. The paper from Ogawa et al. [4] was in the publication process parallel to ours and so was not available for assessment at the time we performed our electronic search.

The Newcastle-Ottawa Scale may have shortcomings, but assessing the quality of large, complex research studies into a few grades will always be challenging, and summarizing large volumes of data necessitates some measure of simplification. It is, for that reason, a fair subject for discussion. We used the Newcastle-Ottawa Scale to provide a short statement of study characteristics and quality, but the scale was not utilized in the meta-analysis calculations themselves; that is, we did not perform any statistical adjustments or weighting based on study quality.

Finally, we agree with Shi et al. in their letter [5] when they point out that pre-registration of studies is beneficial. However, we think this is more important for randomized trials (to avoid publication bias that might arise from lack of reporting) than it is for meta-analyses. In our opinion, overly strict rules about pre-registration in this context could easily hinder important research and scientific dialogue. We think it is more important to be transparent in the selection of studies, extraction of

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results, and data analysis in the final publication, as we tried to be.

Decisions made in this context are not always “an exact science,” and may involve some subjective decisions. Future researchers can and should seek to replicate work of this sort, just as they should any other kind of scientific inquiry.

All the same, we were excited to see that the letter from Shi et al. [5] confirmed our main findings with the methodology they used, although the effect sizes differed by a bit. Their main message supports the strength of the conclusions we drew.

In the end, medical science advances through the sharing of divergent

findings and opinions. We thank Shi and colleagues for sharing theirs.

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