

Misleading communication aid

The systematic review comparing various osteoarthritis treatment options is a valuable summary of the evidence and I thank the authors for their work.¹

Unfortunately the simplified decision aid with the page of 100-face diagrams is misleading and does not accurately and clearly summarize the evidence collected.² *Meaningfully improved pain* is not defined in the article so it is not clear exactly what is being measured in the diagrams. It looks as though 94% of the patients to whom I prescribe exercise will have improvement (54% of them owing to the exercise and 40% related to natural variation in disease severity). This leaves only 6% who will get worse or stay the same. One has to read the text in detail to discover the statistical compromises that resulted in this implausible finding.

The accompanying table lists opioids as being likely harmful, but the 100-face diagram makes them look modestly beneficial. Only the text makes it clear that this is because the diagram represents short-term outcomes and the table focuses on long-term outcomes (which is appropriate for a chronic disease).

Glucosamine, chondroitin, and viscosupplementation appear twice on the page of 100-face diagrams, but only the text explains that the benefits are unclear because industry-funded trials with positive results could not be replicated.

I am glad that I read the whole article and it will help me with quantifying benefits when sharing decision making with my patients, but I will definitely not be using the 100-face diagram as a communication aid. It is not a good summary of the evidence so carefully collected in the systematic review.

—Roger Suss MD CCFP(EM) FCFP
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Competing interests

None declared

References

1. Ton J, Perry D, Thomas B, Allan GM, Lindblad AJ, McCormack J, et al. PEER umbrella systematic review of systematic reviews. Management of osteoarthritis in primary care. *Can Fam Physician* 2020;66:e89-98. Available from: <https://www.cfp.ca/content/66/3/e89>. Accessed 2020 May 11.
2. Lindblad AJ, McCormack J, Korownyk CS, Kolber MR, Ton J, Perry D, et al. PEER simplified decision aid: osteoarthritis treatment options in primary care. *Can Fam Physician* 2020;66:191-3 (Eng), e86-8 (Fr).

Response

We thank Dr Suss for his letter regarding our osteoarthritis decision aid¹ that accompanies the

systematic review² and are pleased he finds the systematic review a valuable summary.

Dr Suss states we did not define *meaningfully improved pain* but in the third sentence of the decision aid article we state meaningful reductions in pain are “generally defined as a 30% or more reduction in pain, but specific definitions of *clinically meaningful* vary widely across studies.”¹ The decision aid itself does include this estimate (about 30%) in the title to assist clinicians when discussing treatment options with their patients.

Dr Suss raises some other specific concerns and states a number of times that he had to read the whole article to understand the tools. While the PEER (Patients, Experience, Evidence, Research) Group is always seeking to simplify evidence and make it as accessible as possible, we believe that a quick review of the instructions for any tool or resource is not unreasonable. The article is 368 words (about 100 more than Dr Suss’ letter) before the graphics. That is substantially shorter than most available guidelines and evidence synopses.

We address the specific concerns raised:

The exercise benefit is implausible. Yes, it likely is. How to apply the meta-analyses response rate results is much debated. Pulling numbers directly from the metagraph is easiest, uses the raw absolute numbers, and offers a good approximation in most cases. However, many evidence experts believe we should apply the relative risk (or rate ratio) to standardized numbers (drawn from a population). In decision aids, this allows the relative benefits of interventions to be more easily compared but still presents absolute numbers. For our standardized control (placebo) event rate, we used the average of control rates across all studies. It is not without other limitations, however. The foremost is that interventions with good relative benefit but a comparatively low control rate (like exercise) will appear more effective. On the other hand, studies of topical nonsteroidal anti-inflammatory drugs had a higher placebo response rate, so conversion in those cases leads to a slight reduction of the absolute effect.

While we recognize the positive effect of activity on osteoarthritis is likely inflated by this methodology, we believe that the downside is more people might attempt increased activity. If the overestimation encouraged even a few more people to increase their activity, the

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