

# Comment on blog by Edzard Ernst on systematic review

13.11.2023, Harald J. Hamre, Klaus von Ammon, Anja Glockmann, Helmut Kiene

## Background

Our publication<sup>1</sup> of a [systematic review \(SR\) of meta-analyses \(MA\) of randomised placebo-controlled homoeopathy trials for any indication](#) was addressed in a [blog](#)<sup>2</sup> by Edzard Ernst (also reprinted at the end of this document). We are happy to clarify and correct a number of wrong, misleading or unsubstantiated statements in this blog:

## Wrong, misleading or unsubstantiated statements

***“...who would want to do an SR of MAs (a most peculiar exercise)... bizarre approach”***

**Wrong:** SRs of MAs are neither peculiar nor bizarre, there are plenty of them. A Google Scholar search for the exact phrase "systematic review of meta-analyses" yields 7,510 hits, a full Google search ca 835,000 hits.

***“...by pooling the MAs, they generated a positive result... this strategy (which in effect multiplies the results of many primary studies by factor 6)”***

**Wrong:** We have not pooled any results. Pooling of several results into one effect estimate is done in MAs, this was an SR of existing MAs without any new meta-analytic pooling.

**Wrong:** There was no multiplication of any results whatsoever. We have followed standard procedures for SRs, grouping results and other features of the 6 MA together, and assessing the confidence in the cumulative evidence according to the detailed GRADE framework<sup>3</sup> (presented in [Additional file 3](#)).

***“...about the ‘efficacy’ (actually it should be effectiveness)”***

**Wrong:** The scope of our [SR](#) was MAs of placebo-controlled trials, which evaluate efficacy not effectiveness.

***“...the 6 MA included more or less almost the same primary studies”***

**Wrong:** As described in the [Trial Characteristics](#) section of our SR, the 6 MA comprised 310 trials or trial comparisons, thereof 182 different trials. Thus only 41.3% ((310-182)/310) of trials overlapped.

***“The 6 included MAs are marginally positive...”***

**Misleading:** In the GRADE framework, the term “marginally positive” corresponds to “imprecision” (significantly positive effect estimates with confidence intervals close to the threshold for ‘no significant difference<sup>4</sup>). The blog comment suggests all six MA had imprecise results, which was not the case: The primary outcome of our SR comprised 9 effect estimates from the six MA, of which 6 showed a significant and “more than marginally” positive effect of homeopathy, compared to placebo; 2 estimates showed a significant and “marginally” positive effect (see [Additional file 3](#), section 1.4); and 1 estimate showed a positive but not significant effect.

***“...(mainly due to publication bias and other artefacts)”***

**Unsubstantiated:** This is essentially a reiteration of the assumption of the Shang 2005 MA<sup>5</sup> (“effects... could be explained by a combination of methodological deficiencies and biased reporting”, p.730) without further substantiation. We have assessed the possible impact of publication/nonreporting bias as well as other forms of bias and confounding in all six MA (see [Additional file 3](#), sections 1.1-1.8 and [Additional file 2](#)). Further information can be found in our assessment of risk of bias in the Shang 2005 MA in [Additional file 1](#), pp. 11-15 and our comment on the circular logic underlying the above-mentioned assumption in the [Discussion](#) (p. 21).