Did you add the same study twice in the meta-analysis?

I read with interest the systematic review of pharmacotherapy for post-traumatic stress disorder (PTSD) by Mathew Hoskins and colleagues. Looking at Fig. 2 of the paper and at the online-only supplemental file, however, it seems to me that two unpublished colleagues. Looking at Fig. 2 of the paper and at the online-only supplemental file, however, it seems to me that two unpublished studies have been counted twice in the meta-analysis. As far as I can see from the information reported in the review, the study ‘Eli Lilly’ is the same as ‘Martenyi 2007’ and ‘Pfizer 589’ is the same as ‘Friedman 2007’ (same drugs, same comparisons, same sample size). I would be grateful if the authors could clarify the matter.


Authors’ reply: Professor Cipriani helpfully questions duplication of data from two unpublished studies in our review. We could not get access to the unpublished material for ‘Eli Lilly’ and ‘Pfizer 589’, even after contacting the pharmaceutical companies, and instead relied on the raw data sets obtained from previous reviews.

We have contacted Dr Friedman, who has confirmed that Pfizer 589 was subsequently published as ‘Friedman 2007’. We have also contacted the authors of ‘Martenyi 2007’, but are, as yet, unable to confirm if this is the published ‘Eli Lilly’ paper. This seems distinctly possible, as the sample sizes are the same but it is important to note that Eli Lilly only released Treatment Outcome PTSD Scale data and not Clinician Administered PTSD Scale data to the National Institute of Health and Care Excellence reviewers.

When the ‘Pfizer 589’ data are removed, it changes the outcome for sertraline, which now demonstrates a small but statistically significant advantage over placebo in reducing the severity of clinician-rated PTSD symptoms (8 studies, n = 1271, SMD −0.16 (95%CI −0.31 to −0.02), χ² = 33%). This means that paroxetine, fluoxetine, venlafaxine and sertraline can be considered as potential treatments for PTSD.

The outcome for the trauma-type sub-analysis for sertraline is still statistically insignificant (3 studies, n = 278, SMD −0.42 (95%CI −1.03 to 0.19), χ² = 81%). ‘Eli Lilly’ was not included in the meta-analysis of individual agents vs. placebo. The overall meta-analysis of selective serotonin-reuptake inhibitors (SSRIs) vs. placebo, when ‘Eli Lilly’ and ‘Pfizer 589’ are removed, is now slightly more in favor of SSRIs (19 studies, n = 3350, SMD −0.27 (95%CI −0.37 to −0.16), χ² = 45%); see revised forest plot, here Fig. 1.