Author's response to reviews

Title: Calculation of NNTs in RCTs with time-to-event outcomes: A literature review

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Response to the Advisor

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1) We described the methods of our recalculations in more detail (see Methods section, p. 7). We do not know exactly which methods for NNT calculation have been used in fact by the authors because they are usually not described sufficiently. However, we are sure that in almost all cases that we classified as inappropriate naive proportions have been used. To support this view we like to cite reviewer 1 who wrote in one of the former reviews: “… The 10% and 8% of patients respectively who had the primary endpoint mentioned in the abstract and in Table 3 are NOT the event-probabilities at 4 years estimated by the Kaplan-Meier method, but simply the fractions of patients who reached the primary endpoint. Because the EUROPA report does not state how the NNT of 50 was derived and because this is the most frequent method of estimating NNTs for this type of trial, one can be 99.9999% sure that the authors took NNT as 1/[(603/6108) - (488/6110)], which equals 53. This was then rounded to 50 in the report. …”. We deleted example 2 because the main problem (use of naive proportions) is the same as in example 1 (pp. 9-10).

We provide an additional step-by-step explanation for the statistical advisor by showing our calculations for study 11 of Table 3 (the only study for which published and recalculated CIs are available). However, we do not like to publish this document because our goal is not to criticise individual authors. Moreover, permission of the journal would be required to use the corresponding graph.

2) We added the reported and recalculated 95% CIs for NNTs in Table 3 and extended the Methods (p. 7) and Discussion sections (p. 12) accordingly. We thank the statistical advisor to draw our attention to this important point.

3) We deleted the relative differences from Table 3.