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Incorporating absolute effects to enrich interpretation of findings from meta-analyses – Authors’ reply

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Reply to Wu et al.

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We thank Wu and colleagues for their comment [ref to be added] on our article¹, pointing out at the importance of taking into consideration both relative and absolute effect when interpreting a network meta-analysis. We are in total agreement with this comment, which applies to NMA, but also to standard meta-analyses and individual randomised trials.

In our meta-analysis, the absolute effects were calculated using two methods: the one developed by Stewart and Parmar² with results presented in web-table 4 for overall survival; the other based on restricted mean survival time difference (add the reference) with results presented in web-table 6-A for overall survival. Restricted mean survival time difference, which provides the number of months gained (95% CIs), was also applied because of its robustness to non-proportionality of hazards and its applicability to meta-analysis and network meta-analysis^{3,4}. The interpretation of network meta-analyses is not straightforward, given the large number of statistical tests performed on various endpoints and the statistical methods and hypotheses that underline these analyses. To clarify the interpretation to readers, one should look at:

- Ranking, but remembering that no uncertainty has been calculated for ranking;
- Relative effects, but looking at HR across treatment modalities and not only compared to the reference treatment (see web-table 4 where HR for OS are not significantly different among the first 3 treatments);
- Absolute effects, bearing in mind that the magnitude of benefit depends on the absolute survival chosen for the reference arm, which may not represent the current survival with modern staging and therapy;
- Consistency of findings across the different endpoints;

- Toxicity, as increased toxicity has been shown with intensified treatment in our article.

If readers follow such a strategy to interpret our work, they will capture the complexity of the analysis and be able to make the best use of the results to make a treatment decision for an individual patient.

Reference

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