



**HAL**  
open science

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

Claire Petit, Jean-Pierre Pignon, Pierre Blanchard

### ► To cite this version:

Claire Petit, Jean-Pierre Pignon, Pierre Blanchard. Incorporating absolute effects to enrich interpretation of findings from meta-analyses – Authors’ reply. *Lancet Oncology*, 2023, 24 (9), pp.e359. 10.1016/S1470-2045(23)00402-3 . inserm-04577870

**HAL Id: inserm-04577870**

**<https://inserm.hal.science/inserm-04577870>**

Submitted on 16 May 2024

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L’archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d’enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Reply to Wu et al.

*Authors:* Claire PETIT, Jean-Pierre PIGNON, Pierre BLANCHARD

*Affiliations:*

Department of Radiation Oncology, Gustave Roussy Cancer Campus, Université Paris-Saclay, Gustave-Roussy, Villejuif, France (C Petit MD, Prof Blanchard MD)

Oncostat U1018 INSERM, labeled Ligue Contre le Cancer, Villejuif, France (C Petit MD, J-P Pignon MD, Prof P Blanchard MD)

Groupe d'Oncologie Radiothérapie Tête Et Cou, Tours, France (C Petit MD, J-P Pignon MD, Prof P Blanchard MD)

**Corresponding author:**

- Prof Pierre Blanchard  
Department of Radiation Oncology  
Gustave Roussy  
114 rue Edouard Vaillant  
94 800 Villejuif, France
- Tel: 33(0)142116367
- Fax: 33(0)142115258

E-mail: [pierre.blanchard@gustaveroussy.fr](mailto:pierre.blanchard@gustaveroussy.fr)

We thank Wu and colleagues for their comment [ref to be added] on our article<sup>1</sup>, 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 Parmar<sup>2</sup> 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<sup>3,4</sup>. 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

1. Petit, C. *et al.* Role of chemotherapy in patients with nasopharynx carcinoma treated with radiotherapy (MAC-NPC): an updated individual patient data network meta-analysis. *Lancet Oncol.* **24**, 611–623 (2023).
2. Stewart, L. A. & Parmar, M. K. Meta-analysis of the literature or of individual patient data: is there a difference? *Lancet* **341**, 418–422 (1993).
3. Wei, Y., Royston, P., Tierney, J. F. & Parmar, M. K. B. Meta-analysis of time-to-event outcomes from randomized trials using restricted mean survival time: application to individual participant data. *Stat. Med.* **34**, 2881–2898 (2015).
4. Lueza, B. *et al.* Difference in Restricted Mean Survival Time for Cost-Effectiveness Analysis Using Individual Patient Data Meta-Analysis: Evidence from a Case Study. *PLOS ONE* **11**, e0150032 (2016).