Understanding the lung cancer mortality reductions produced by low-dose CT screening—Authors' reply

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We thank Dr Furukawa and Prof Hanley for their letters[1,2] regarding our recent UKLS publication in LRHE.[3]

We are in broad agreement with Dr Furukawa about the importance of the absolute benefit of health interventions, and for the most part with the approach. However, we would qualify it with the following remarks.

In terms of the effect on mortality from lung cancer, Dr Furukawa underestimates the absolute benefit. If we take the relative risk of 0.84 (already slightly conservative for reasons outlined in our paper) from the meta-analysis, and multiply 23 by 0.84, we get closer to 19 per thousand with the effect of the ***offer*** of screening, a reduction of four lung cancer deaths per thousand over 7 years. The effect of actually being screened will be larger.

It should also be noted that the absolute benefit will depend on the risk group targeted, and the 4 per thousand pertains specifically to the UKLS eligible population.

We agree with Prof Hanley on the usefulness of the absolute benefit, which remains relatively constant within a trial. Unfortunately, it is not generalizable between trials as it will depend on the period of observation, the risk group targeted and the uptake of the screening in each trial.

We also agree that the relative benefit does change with time within trials, and we did mention that the conventional approach of taking the most recent result, which we adopted, is conservative.

Author contribution

Equal contribution.

Declaration of interests

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References

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