Getting it Straight: Avoiding Blunders While Criticizing a Peer’s Work

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We were recently made aware that our paper1 was the subject of a commentary by Dr Hanley2, in which he used our paper and another to highlight the potential pitfalls of immortal time bias. In that commentary, he makes the claim that we did not account for immortal time bias and asserts that the results of our study are biased and therefore not valid.

We have not gone to the effort of writing an editorial simply because our paper was criticized. We, in fact, welcome appropriate and fair evaluation of our work and the opportunity to engage in scientific debate. Withstanding scholarly criticism of one’s work is a time-tested way of validating one’s results. It is this cycle of criticism and reassessment that underpins the entire peer review process that we, and the public, rely on to make sure that the best studies are the ones that get published. Criticism is so important that we believe it is a scientist’s duty to speak up when we find questionable results in the published literature.

We are writing this editorial to set the record straight with regards to the assertions made about our paper. Our study addressed the hypothesis that removal (nephrectomy) of a failed transplanted kidney (allograft) from patients in whom a kidney allograft has failed and who have returned to dialysis therapy is associated with differential survival compared with leaving in the failed allograft. The current standard of care is to retain the failed allograft while the patient is returned back onto chronic dialysis treatment. To examine this question, we conducted a retrospective observational cohort study using information from the nationally representative United States Renal Data System registry.

Immortal time bias is certainly a potential problem whenever an observational study (i.e. not a randomized controlled trial) is used to evaluate the potential benefit or harm of an intervention. In our particular case, this was certainly a concern since allograft nephrectomies occurred not necessarily upon the return to dialysis for all patients but at some point following the return to dialysis. Attributing person-time before a patient had a nephrectomy to the ‘allograft nephrectomy group’ for examining survival that occurred after the nephrectomy would have been inappropriate and would have subjected our study to immortal time bias. In our analysis, we appropriately credited the person-time between return to dialysis and allograft nephrectomy as a time-updated covariate with appropriate adjustment for other time-updated confounders to the degree they were available in the dataset. Toward that end, there was no systematic exclusion of person-time in the group that ultimately received an allograft nephrectomy and no misclassification of the exposure, so the analysis was not susceptible to immortal time bias. Rather, we initiated follow-up at the same time in every patient at the time they became eligible to receive allograft nephrectomy or not. Our group has extensive
experience in addressing this issue in other situations as well\(^3\) when examining the association of a therapy and outcomes outside a randomized trial setting. As we acknowledged in our paper and as Dr Hanley also noted, for any observational study of outcomes associated with a therapy, we cannot rule out that our results could be explained by unmeasured or residual confounding variables, which is separate from the issue of immortal time bias.

We conveyed this message to Dr Hanley, informing him of his incorrect assumptions about our paper, and unfortunately this did not lead to a correction of his assertions. Therefore, we feel compelled to write this editorial. In summary, we want to set the record straight regarding our paper ‘Transplant nephrectomy improves survival following a failed renal allograft’.\(^1\) Our paper was not subject to immortal time bias since, in our analysis, we appropriately credited the person-time between return to dialysis and allograft nephrectomy to the ‘no allograft nephrectomy’ group, we treated allograft nephrectomy as a time-updated covariate with adjustment for time-updated confounders and we initiated follow-up time at the correct time for each person whether they received an allograft nephrectomy or not. Finally, we believe that situation also highlights the need to first contact the authors of a paper if you have questions before choosing to publicly criticize the work.

References