Author’s response to reviews

Title: Renal transplant patients' preference for the supply and delivery of immunosuppressants in Wales: A discrete choice experiment.

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Reviewer reports:

Anne Holbrook (Reviewer 1):

THIS MANUSCRIPT DESCRIBES A DISCRETE CHOICE EXPERIMENT WITH PATIENTS IN NORTH WALES WHO HAVE HAD A KIDNEY TRANSPLANT TO DISCERN THEIR PREFERENCES FOR ACCESSING THEIR IMMUNOSUPPRESSANT MEDICATIONS.

The manuscript is well written, and the revisions significantly enhance the clarity of the study.

***We thank the reviewer for her further comments and suggestions for improving our revised manuscript.

I have several residual concerns about this study, which are not amenable to editing:

1. The study has a very small sample size. Of 265 patients available for recruitment, only 133 completed the entire discrete choice experiment. This small response rate introduces a very high chance of response bias. As well, it limits generalizability.

***A 50% response rate is quite usual for a postal questionnaire. We included a pre-paid envelope for questionnaires to be returned, and used a follow-up reminder; two strategies which improve response rates [Cochrane Database Syst Rev. 2009 Jul 8;(3):MR000008]. However, we could not guarantee an unbiased response given that those who did not participate might not have done so because they had first read through the questionnaire. We have now made a note to this effect in the discussion section.
2. The study was carried out entirely in North Wales, which is a very small region of the UK with a population of approximately 650,000. The geography is so confined that more than 71% of the study participants lived within 20 miles of their local transplant clinic. Our own renal transplant unit is typical of North American centres - based in a city of similar size but follows more than 1200 patients with renal transplants, many of whom travel more than 100 km to clinic. I am concerned that the compact geography represented in this study also limits its generalizability.

***We accept that the research was conducted in one region and that this may limit its generalisability. Within the devolved National Health Service in Wales, however, the study represents a significant proportion of all renal transplant patients, and so has external validity. As BMC Nephrology is an international (not a North American) journal, we see no obligation to conduct research that is generalizable to North America. We make no claims of having any generalisability to North American centres, but to make this clearer, we have now made this explicit by: (1) inserting the following sentence in the discussion: “As such, the findings may have limited generalisability to patients, payers, healthcare systems or jurisdictions beyond the UK”; and (2) inserting “Renal transplant patients’ preference for the supply and delivery of immunosuppressants in Wales” in the title.

3. The results of the study seem entirely predictable. I don't think I would need a study to tell me that patients would prefer home delivery of medications instead of travelling at their own expense and time to clinic, and they also prefer to off-load the responsibility of arranging refills. The real question for such a study would have been 'How much are you willing to pay for this additional (expensive) service?' The authors claim to be able to avoid this cost question as this type of healthcare is considered to be free, however no healthcare is free. there is opportunity cost to every additional service provided. One could have justifiably asked how many renal transplants should be foregone given that the funds will not be foregone in order to allow patients to have home delivery and someone else supervising their refill requests.

***Whilst the direction of some coefficients may be predictable (in accordance with hypotheses), the order of magnitude and trade-offs between the coefficients is not. Our study quantified these.

The reviewer makes a point about opportunity cost, that is, the health forgone as a consequence of a more expensive service. This notion is conceptually misleading for two reasons:

Firstly, a home delivery service results in a cost-saving to the National Health Service, as medicines dispensed in the community do not incur the 20% Value-Added Tax (VAT) which is charged on medicines dispensed via hospital pharmacies. While VAT is a transfer payment, from the perspective of a health authority this places a significant burden on drug budgets. Savings
from the NHS not having to pay VAT are orders of magnitude higher than the additional costs of delivering medicines to patients.

Secondly, even if there was an opportunity cost to a home delivery service - in terms of health forgone – this is not a decision which patients make, nor are they qualified or informed to do so. The true opportunity cost from the patient perspective is the time spent waiting for their medicine – time which (in the hospital pharmacy particularly) could be spent doing something else; and this is included in the DCE.

There is debate about the use of a cost attribute in DCEs where the respondents do not contribute financially. A common criticism of stated preference studies, including DCE studies, is that they rely on evaluations of hypothetical alternatives, and presenting study participants with cost attributes, when they are unaccustomed to evaluating the costs of healthcare, may invalidate the findings [Health Econ. 2011 Mar;20(3):323-30].