Reviewer's report

Title: An international comparison of deceased and living organ donation rates in opt-in and opt-out systems: a panel study

Version: 1 Date: 2 April 2014

Reviewer: jeremy chapman

Reviewer's report:

1. Is the question posed by the authors new and well defined?
   It is not new but it is interesting and remains unresolved.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?
   Yes

3. Are the data sound and well controlled?
   The answer to that question is the detail of the paper.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
   Yes

5. Are the discussion and conclusions well balanced and adequately supported by the data?
   Please see specific comments.

6. Do the title and abstract accurately convey what has been found?
   Yes

7. Is the writing acceptable?
   Yes

- Major Compulsory Revisions

1. P10 Para 2. The statement is made that rises in deceased donation rates don’t alter living donation rates. This is contrary to experience in both the US and Australia where there has been a clear association between a rise in deceased donation rate and a fall in living donation. It is not clear that the analysis is between country’ or ‘intra-country’ changes in donation rates and over what time period. Is the data analysis skewed by a series of countries with small changes that don’t correlate, obscuring the changes occurring when the increased deceased donation rate is large and thus sufficient to lead to a reaction in the potential living donors to hold back on donation. This analysis needs to be clarified.
2. The general rise in donation probably reflects transplantation capacity and may have absolutely nothing to do with donation consent at all. It is much more plausible that the number of transplant centres and trained transplant surgeons in a country over time is the most important influence on donation rates. Deceased donation is a not accomplished for donation, it is undertaken for transplantation and by transplant surgeons without whom it simply doesn't happen. With rising numbers of trained transplant surgeons we would hardly expect a fall in donation rates.

3. Living Liver donation is currently even more subject to the availability of trained surgeons prepared to tackle this testing surgery. This paper seems to assume that surgeons follow the organs but that is not true, surgical training lags many years behind national economic capacity and organ donation lags behind the formation of transplant units. How does the statistical model address this issue?

4. One deceased donor provides almost two kidneys on average. Has this been balanced in the equations of relative benefits from deceased versus living donation rates?

5. There is no consideration of the way in which laws are interpreted in different countries. The head of the Spanish system is clear in his statements that Spain does not operate an opt out law, even though it has one. Perhaps you should load Spain and others with similar family consent practices into the Opt-in group and redo the analysis?

6. The impact of the legal system on behaviour and attitudes in this analysis does not take into consideration the opposite impact. Namely, the effect of community norms, behaviour and attitudes on the legislative body. In every country where opt-out has been considered and not proceeded with, the principle reason has been the reaction from the community to the politician(s) proposing the change. In other words a community not ready or capable of accepting opt-out remains as opt-in and the community that has already accepted the normality of donation for transplantation has no resistance and in fact rewards politicians that implement such legal changes.

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests: I declare that I have no competing interests