Reviewer’s report

Title: Identification and weighting of kidney allocation criteria: a novel multi-expert fuzzy method

Version: 2 Date: 18 Jul 2019

Reviewer: Darren E. Stewart

Reviewer’s report:

I greatly appreciate the authors' careful consideration of my comments and suggestions and their willingness to revise in many areas.

The introductory paragraph on how allocation works in Iran is much clearer now.

The additional explanation of fuzzy vs. crisp numbers and the rationale for a fuzzy approach are much more clear now.

The discussion of HLA matching is more clear now.

Excellent new discussion about how attributes don't directly map 1 to 1 to Utility or Equity.

(And yes, you are right, CR's were indeed provided in the initial submission... I missed them!)

Some additional, minor suggestions for improved clarity:

1. Figure 3:
   - Change "PRA" to "PRA>80%"
   - Change "Waiting time" to "Waiting time (per year)"
   - Change "Medical urgency" to "Medically urgent"

2. The new sentence (row 257) "When there is an emergency patient..." is unclear. Consider revising to make it more clear.

3. Regarding the average waiting time comparisons in Table 8, your response to my comments about the method used for this evaluation helps me better interpret the results. The results aren't suggesting the average waiting time will decrease significantly on average, but rather that the developed model uses previously accrued waiting time less for prioritizing patients than the current model (ostensibly because other factors such as medical urgency play a larger role). If you agree with my interpretation, consider explaining this concept in the results on page 20 to help ensure readers don't misinterpret results.
4. Table 9 is much improved. However, it would seem more clear if Patient ID was replaced with Patient Rank (current system) and "Ranks" renamed "Patient Rank (proposed model)". Patient Rank (current system) would be used for sorting.

I am glad to have had the chance to review your work and will be very interested in seeing your paper once it is published!

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
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