Author’s response to reviews

Title: Benefit in liver transplantation. A survey among medical staff, patients, medical students and non-medical university staff and students

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Dear Dr. Emmerich,

Thank you very much for your instructive critical review. On the basis of the reviewer comments, we have revised the manuscript. Hereafter, a point-by-point response to the criticisms and requested revisions is listed indicating all changes.
We hope that we were able to fully address the reviewer comments and hope that the revised version of the manuscript will be accepted to be published in BMC Medical Ethics.

Thank you for receiving our revision. We appreciate your time and look forward to your response.

Best regards,

Prof. Dr. Markus Guba, Christine Englschalk

Response to the reviewer reports:

Katrina A. Bramstedt (Reviewer 1):

1. The sentence "Medical students in their clinical semester" was clarified; medical students in their third to fifth year were approached (see line 81).

2. The approval for the study was clarified in detail: „A declaration of no-objection for the survey was granted by the ethics committee of the LMU Munich“ (see lines 96-98).

3. According to the German Transplant Law, “prospect of success” and “urgency” shall be considered in the organ allocation system (§ 12 (3) TPG). The German Transplant Law was the basis for our conducted survey and uses the term “prospect of success”. This is why we investigated “prospect of success” instead of “benefit”, even though “benefit” is well known as a research concept.

   It is right, that the use of the word “prospect of success” is unusual in medicine. Diverse definitions or target criteria of prospect of success exist. We have tried to get access to this problem by conducting our survey amongst the different stakeholders.
4. There were three possible answers to the question “In your opinion, what is the criterion for success in liver transplantation?”: 1) “Gain in lifetime”, 2) “Gain in quality of life” and 3) “Both lifetime and quality of life”. This was clarified in the paper (see line 131).

The guidelines of the German Medical Association (GMA) define prospect of success as longer-term sufficient transplant function translating into a longer-term survival of the recipient with an improved quality of life.

We investigated the GMA definition of prospect of success, focusing on longer-term survival and improved quality of life. First we wanted to examine if the different stakeholders also would choose both – gain in lifetime and gain in quality of life – as criteria. The vast majority of survey respondents chose both as the fundamental criteria of successful liver transplantation. The next aim was to find out what longer-term survival and improved quality of life means for the different stakeholders and what they expect. So far there is no such specification.

5. The German Transplant Law does not define prospect of success. Guidelines of the German Medical Association (GMA) specify the German Transplant Law. These guidelines of the GMA define prospect of success in general (see point 4 above). A committee of the GMA determines specific allocation guidelines for each organ. The current liver allocation guideline does not incorporate or define prospect of success. This was clarified in the discussion (see lines 239-243 and 270-273).

6. The lung allocation system is based on the lung allocation score (LAS) in Germany. The LAS incorporates prospect of success through taking into account the estimated survival probability and projected duration of 1-year survival with or without a lung transplantation. This was included in the discussion (see lines 276-278).

7. The kidney allocation system is based on the estimated post-transplant survival (EPTS) scoring system. Prospect of success is incorporated in the kidney allocation scheme through taking into account the expected post-transplant survival (see lines 280-281).

8. The discussion was rearranged so that the passage the reviewer mentioned comes much earlier in the discussion (see lines 229ff.).
9. The guidelines of the German Medical Association (GMA) define prospect of success as longer-term sufficient transplant function translating into a longer-term survival of the recipient with an improved quality of life. In this semi-quantitative survey we preset criteria of prospect of success (gain in lifetime and/or gain in quality of life), focusing on the GMA definition.

10. Grammenos et al. recently studied the attitudes of hospital staff towards organ donation and transplantation (Grammenos et al., Dtsch Med Wochenschr 2014; 139: 1289-1294): After manipulations of the waiting lists in some German transplant centers became public, the already low organ donation numbers in Germany have declined further. Grammenos et al. highlighted that the recent developments with the current loss of confidence also had a negative impact on the attitude of medical staff. A large proportion of medical staff considered themselves as not well informed and organ allocation was considered as unfair.

11. The paper was updated to include the concept of “capacity to benefit” (see lines 237-239).

Trevor W Reichman (Reviewer 2):

1. After MELD introduction in Germany, the average MELD score for a regular liver allocation went up from 25 to meanwhile 34. This was clarified in the background (see lines 59-60).

2. A comment on the current donation rates in Germany was inserted in the discussion (see lines 219-220).

3. Group 2 consists of patients with end-stage liver disease (ESLD) who either had received a liver transplant or were listed for a transplant. The rationale for putting these two groups of patients together is their common ground of having end-stage liver disease and being directly affected by the discussed topic.

We also wondered if their opinions differ depending on whether the patients are awaiting a liver transplantation or if they have already undergone a liver transplantation. Therefore, we performed a subgroup analysis to see whether these two subgroups were different in their
responses. No significant differences were detected between the answers of the two subgroups. Therefore we kept them together in one group.

4. It is true that the response rate of the online survey seems to be weak. Unfortunately, we are dealing with a general problem of using information services to approach participants. A large number of university staff and students subscribe to the university information service. We do not know how many subscribers read their emails. But we know that the online questionnaire was answered by 217 respondents of whom 177 finally completed the survey.

It is also correct that this single center study consisted of university staff and students, which may not be an adequate sample of the general population. On average, respondents were younger and better educated than members of the general public. This problem is already presented as limitation of the study in the discussion (see lines 336-338).

5. Table 1 was edited, now percentages are provided to facilitate the assessment of the data. The last column ("total") summarizes the personal data of all four groups. With this, we wanted to facilitate the perception of the total study population. We expressed the personal data not only in percentage terms but also in absolute values in the last column, to allow the assessment of the personal data, the sample size varies due to missing answers.

6. On the basis of a literature analysis, basic demographic information was obtained that may influence the attitude towards organ transplantation. The current state of health, smoking and the body mass index were evaluated as indicators of state of health and health behavior (see reference: Ahlert M, Schwetmann L: Einstellung der Bevölkerung zur Organspende, 2011)

7. It would have been interesting to include whether the person answering the questionnaire knew a person that had either donated or received an organ transplant. We plan to include this information in future studies.