Author's response to reviews

Title: The Cost-Effectiveness of the Argus II retinal prosthesis in Retinitis Pigmentosa patients

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Author's response to reviews: see over
Dear Editor and Reviewers,

Thank you for giving us the opportunity to revise our manuscript titled as ‘The Cost-Effectiveness of the Argus II retinal prosthesis in Retinitis Pigmentosa patients’.

On behalf of all co-authors, I hereby submit our revised manuscripts to the ‘BMC Ophthalmology’ for consideration for publication.

Please find below our point by point response to the comments made on the submitted version of the manuscript. In the revised manuscript all changes are made by using track changes.

We look forward to hear from you.

Regards,

Anil Vaidya (on behalf of co-authors)
Editorial Comments:

1. Please re-format your manuscript so that it includes a 'conclusions' section.

Authors’ response: Thank you for your comments. We have included ‘conclusion’ section in the manuscript.

2. Please include an 'Acknowledgements' section in your manuscript.

Authors’ response: Thank you for your comments. We have included ‘Acknowledgement’ section in the manuscript.

3. Please include a list of figure legends after the 'References' section.

Authors’ response: Thank you for your comments. We have included list of figure legend in the manuscript after the ‘references’ section.

Reviewer’s comments

Reviewer: Paul Young

Reviewer's report:

Thank you for addressing the questions raised in the initial review. However, there is one remaining point of concern in the category of major compulsory revision that still needs to be addressed fully.

Regarding the Discussion, 7th paragraph, 5th sentence. "This may not happen in practice.....most of the patients are expected to adapt to the device and explantation would be a rare event..." This statement requires revision or omission in order to keep the discussion neutral and legitimize the interpretation of the results. The point that "this may not happen in practice" is a subjective opinion based on speculation without acknowledging that implantation of the prosthesis requires complicated surgery.

History has taught us that there have been less complicated surgical procedures involving implantation of prosthetics in the world of ophthalmology that end up having unexpected complications 5 years or 10 years later. It should be declared that these long term complications are unknown variables that cannot be accounted for when 2 years of data is used to model a 25 year projection. Furthermore, the assumption that "patients are expected to adapt to the device" is only 1 variable associated with explantation and should not be used as the only reason for explantation in the long term.
Later in the Discussion, you state "This study shares the general limitations of economic modeling." This is also an area to be more clear about the shortcomings of using 2 years of data to model a 25 year projection.

Authors’ response: Thank you for your comments. We have changed the text in the discussion omitting the suggested text.

Change in Text: We have modeled explantation probabilities for the life time of Argus II patients based on the available data for two years. However, long term complications such as explantation cannot be predicted accurately and longer follow up data is required to model such events.

We have modeled explantation probabilities for the lifetime of Argus II patients based on data available for two years. This may not happen in practice. After initial years most of the patients are expected to adapt to the device and explantation would be a rare event leading to decrease lifetime cost and higher utility value. In such scenario ICER would shift favorably for Argus II.

Later in the discussion we have stated that ‘Data from increased numbers of Argus II fitted patients with longer follow up in the coming years provides an opportunity re-consolidate the results of our analysis.’