Author’s response to reviews

Title: Mapping Standard Ophthalmic Outcome Sets to Metrics Currently Reported in Eight Eye Hospitals

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Author’s response to reviews:

To: Dr. Choul Yong Park, MD, PhD
BMC Ophthalmology

25 August 2017
Dear Dr. Park,

Thank you for your letter dd. 15 August 2017 with regard to our manuscript ID BOPH-D-17-00416, entitled "Mapping Standard Ophthalmic Outcome Sets to Metrics Currently Reported in Eight Eye Hospitals".

We are grateful for the comments provided by the editor and the reviewers and have substantially revised our manuscript accordingly. Please find the details below:

Editor Comments

Q1: Our two outstanding reviewers raised concerns regarding the data collection method. It is necessary to provide detailed answers about this concern in the revised manuscript.
A: We thank the Editor and have provided the detailed answers below and in the revised manuscript attached.

Reviewer 1

Q2: The authors present a relevant and helpful cross-sectional study of reported therapeutic outcomes in 8 eye hospitals. Principal attention is given to cataract surgery and macular degeneration. The paper is well written and presented and adds to the debate spurring us on towards internationally agreed outcome reporting in ophthalmology.
A: We thank the reviewer for this feedback.

Q3: The authors do not discuss limitations in their methodology, it is quite possible they could have missed outcomes reported by some of the hospitals by simply not looking in the right place?
A: We agree with the reviewer that this is a potential concern in case we only had assessed the hospital websites. In addition to the web search, however, we had a main point of contact (l. 115) in each hospital that provided inside information on the availability and use of indicators in the respective hospitals. Additionally we have, as referred to in the methods (l.127), also assessed non-publicly available measures that were provided through the main point of contact and added these to the set that was used for comparison in our analysis. In addition, we did not attempt to
identify indicators used by all major ophthalmic institutions globally as we felt this would be impractical and a number are not open to publicly sharing this data. We utilised a sample to demonstrate even amongst those claiming exemplar status in benchmarking, the continued variation and challenges of doing so which we feel the current sample is adequate to achieve.

To further clarify, we have amended the manuscript as follows:

‘Eight hospitals agreed on participation, and appointed one main point of contact that provided inside information on the availability and use of indicators in the respective hospitals. The websites of…’ (l.115)

and

‘In this paper, we map current ophthalmic outcome measures reported by a volunteer sample of major ophthalmic hospitals which aspire to be exemplars of ophthalmic indicator use internationally to global standard sets, and provide insights into useful metrics to assess performance in ophthalmology and some of the challenges of implementing such measures across institutions’. (l.104)

We agree that there is not currently a clear section in the discussion addressing the limitation of the study, and we have introduced this, amending the manuscript as follows in the Discussion section:

‘The study is limited by the number of institutions who publically report outcomes and indicators, and a reluctance from a number of institutions to either devote resource to gather regular indicator results to benchmark or, if gathered, to share or publish indicator results. This rendered a comprehensive or global data gathering study impractical at this time, but the use of a sample of leading institutions was possible and, although by necessity only permitting descriptive statistics, does demonstrate both the utility and the issues in attempting to use ophthalmic indicators to benchmark and compare performance across institutions and countries.’

and ensuring the limitations section is retitled to ensure readers are clear this is examining limitations of the current use of indicators not the limitations of the paper. (l.205)

To clarify, we have changed ‘Limitations’ to ‘Limitations of current ophthalmic indicator use’. (l.300)
Q4: The authors collected data from the hospitals' website or directly from the hospitals, to review whether the data reported are consistent with the ICHOM framework. The data collection methods were not consistent among the hospitals. Besides, did the authors try to explore whether the hospitals report the data in other platforms like the annual reports?

A: We thank the reviewer for bringing this up. As indicated in the answer to reviewer 1 above, all nine hospitals provided a main point of contact that was aware of all indicator platforms used in the hospital, either publicly available or not. This included annual reports, departmental quality reports and quality auditing reports.

In order to clarify, we have added the following to the manuscript:

“In addition to the outcomes data published on the hospitals’ websites, non-published measures (eg, data from annual reports, departmental quality reports and auditing reports) were recorded through the main point of contact in the respective hospitals. Outcomes were added.” (l.128)

Q5: How hospitals comply with the international standard is a great topic. The sampling frame should not be just 9 hospitals. The representativeness is a problem in this study. How can the authors conclude 'outcomes reporting for ophthalmic conditions currently widely varies across hospitals GLOBALLY' using the observation from 8 hospitals?

A: As the aim of our study is to determine alignment of proposed international standard outcome sets to metrics currently reported in a sample of leading ophthalmic provider hospitals which aim to lead on incorporating indicator use in their practice, we judged a qualitative descriptive research design to be more appropriate than statistical comparisons. This is not a multicentre trial or meta-analysis where we can control for details of measurement and execution. As there might be case-mix and other interinstitutional differences, we do feel restricted to perform proper statistical comparisons. In line with methodologies used in earlier descriptive papers on comparable topics that we referred to (eg, Hahn 2011; de Korne 2011, Rodrigues 2016), we have used a descriptive approach and are not claiming any statistical significant differences.

In addition we agree that the use of the term “globally” is misleading as it implies a comprehensive global data collection that was not undertaken. We have therefore changed to make more clear the use of a sample and used the word internationally instead.
To clarify, we have amended the text accordingly:

‘In this mixed methods descriptive study, we performed a review of the outcomes reported and compared this to existing standards’ (l. 110).

and

‘In this paper, we map current ophthalmic outcome measures reported by a volunteer sample of major ophthalmic hospitals which aspire to be exemplars of ophthalmic indicator use internationally to global standard sets, and provide insights into useful metrics to assess performance in ophthalmology and some of the challenges of implementing such measures across institutions’ (104)

Q6: What are retrospective mixed methods?

A: A mixed methods refers to the use of a mixture of qualitative and quantitative methodologies to gather and analyse data relevant to the study aim and to maximise internal and external validity (Yin, 2003; Ovretveit 2014). As indicated by Ovretveit, ‘these techniques are probably less familiar to medical and health services researchers but have a long history with social scientists, international health researchers and in health promotion/education and public health research, as well as for educational, social work, mental health, and welfare programme evaluators’ (2014:52).

To clarify, we have added the following to the Limitations paragraph:

“Current ophthalmic outcomes reporting methods do not usually take into account the complicated statistical methods for risk adjustment used in other healthcare fields and hence we have not applied any quantitative comparison or statistical tests in this study. (l.296)

Q7: What is the sample size estimation for this study? How is the power of this study?

A: We refer to the answer on Q5. For this qualitative research design, there is no sample size estimation and power calculation. We have invited all the member hospitals of an international association to participate and had 8 out of 9 (89%) participating. As they are located in various global contexts, we

Q8: Only descriptive data were reported. It is not enough for the current publication standard. No better statistics for the analysis?
A: We refer to the answer on Q5-7. For this qualitative research design, a descriptive analysis with no statistical implications might be more suitable approach than a statistical approach. We find that, through discussions with members of the World Association of Eye Hospitals, many units do not regularly use indicators, do not publish them in reports or online, or are not open to sharing these publicly which means that at this point in time a comprehensive collection of data globally would not be practical. However the sample of those claiming to lead in this area does we feel provide a rich set of results demonstrating the continuing issues in this area and demonstrate the need to actively pursue the development and use of consistent and comparable ophthalmic indicators through global initiatives such as ICHOM.

We have changed the text in the Methodology to

‘Nine hospitals that are self-declared leaders in the routine publication and use of ophthalmic outcome indicators and that are members of an international eye hospital association were invited to participate in the study.’ (112)

We again thank the Editor and the Reviewers for your valuable comments, and trust the above clarifications and the amended manuscript improves the value of this work.

We look forward to your favourable follow-up, and are more than happy to provide any additional clarifications if useful.

Yours sincerely,

On behalf of the co-authors,

Dirk de Korne