Reviewer's report

Title: A comparison of the sensitivity of EQ-5D, SF-6D and TTO utility values to changes in vision and perceived visual function in patients with primary open-angle glaucoma

Version: 1 Date: 27 April 2012

Reviewer: Georgios Labiris

Reviewer's report:

In this paper, authors deal with the very contemporary issue of Quality of Life (QoL) among individuals with glaucoma and the sensitivity of QoL Questionnaires and utility values (UVs) in detecting minor deterioration of visual function. Despite, the clinical and research significance of such studies, this paper does not significantly add to the body of knowledge of this important issue.

Major Compulsory Revisions

Regarding primary objective as stated by the authors “…study objective is to identify among 3 widely used methods (EQ-5D, SF-6D, Time-Trade-Off) the one most sensitive changes in both binocular VFL and visual functioning (measured using the VFQ-25). “

However, former studies have already indicated that generic health-related QoL instruments (i.e EQ-5D, SF-6D) inefficiently reflect vision specific QoL changes and that vision-specific (i.e. NEI-VFQ 25) and glaucoma-specific (i.e. GQL-15) tools correlate better with glaucoma-related clinical parameters than generic ones. Similar conclusions could be drawn by this research work, as well, although they are indirectly presented in the manuscript.

For example in:

- Results / Stage-dependent changes in visual functioning and QOL / line 21 “…There was strong evidence of a relationship between VFL and every VFQ-25 sub-scale (all P<0.001), except for general health (P=0.10) and ocular pain (P=0.16). The same associations were found for VAB (P<0.001 for all tests but general health and ocular pain, both P=0.35)…” however, no table with the specific scores is included in the paper.

- Again in Results / Stage-dependent changes in visual functioning and QOL / line 29 “…Only the SF-36 sub-scales related to its physical component were associated with VFL and VAB, (P=0.03 and P=0.01, 30 respectively; P=0.4 and P=0.92 for the psychological component)…” No specific data are displayed in a table.

- Regarding the “Results/ Sensitivity of UVs to changes in visual functioning / line 11 ” Spearman’s rank correlation coefficients indicate statistical dependence
between the VFQ-25 composite score and the UVs from EQ-5D (r=0.38), SF-6D (r=0.43) and, in particular, TTO....", it would be to the reader’s interest if all the results mentioned in this section would be analytically displayed in an additional table.

Minor Essential Revisions

- Please, spell out the acronyms (i.e. EQ-5D, SF-6D etc.) in the abstract and the first time they are mentioned in text, as well.

- In Methods / Design and sample / Line 13 " Exclusion criteria were eye surgery in the preceding....", it is mentioned that exclusion criteria included eye surgery 6 weeks prior to the response to the QoL instruments and other significant ocular co-morbidities. Please define which ocular diseases were included.

- In Results / Line 5 "The VAB of most patients was within the normal range....", it is stated that the range of the binocular visual acuity (VAB) was: -0.16 - 1.85, while in Table 1 the same range is: -0.18 - 1.85. Please define the discrepancy.

Discretionary Revisions

- The second paragraph of the “CONCLUSIONS” section belongs better to the “DISCUSSION” section.

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests