Health-related quality of life of people attending screening for diabetic retinopathy within a trial setting.

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Design of study

Health-related quality of life questionnaire study.

Purpose

To estimate generic health-related quality of life for a cross-section of attenders within the UK screening programme for sight threatening diabetic retinopathy (DR), in order to inform calculation of quality-adjusted life years for model-based economic evaluation.

Methods

A sample of 874 people were administered EQ-5D-5L and HUI3 questionnaires across 7 screening centres in Liverpool, UK as part of the Individualised Screening for Diabetic Retinopathy study of risk-based variable interval screening. Index scores were estimated based on UK population values. Data were matched with screening outcome (R0M0) data collected routinely by the screening programme.

Results

840 (96%) participants fully completed the EQ-5D-5L and 738 (84%) the HUI3. The mean EQ-5D-5L index score was 0.777, compared with 0.707 for the HUI3. Individuals whose subsequent screening outcome was R1 (background retinopathy) in at least one eye had a lower health-related quality of life on average than individuals with R0 (no retinopathy) for both the EQ-5D-5L (0.762 vs 0.776) and HUI3 (0.660 vs 0.713). For the HUI3 index score, this difference was statistically significant (p=0.03). The distribution of responses for the vision domain of the HUI3 were similar for R0 and R1 groups. Median self-assessed health from the EQ-5D visual analogue scale (0-100) was similar across groups, at 80 for the sample.

Conclusions

Previous model-based economic evaluations of screening for DR have treated screen-negative populations as homogeneous in terms of their health-related quality of life. This work challenges that assumption. Assuming the groups are homogeneous may lead to inaccurate cost-effectiveness estimates. While the HUI3 is recognised as being more sensitive to sight problems, there may be a loss in data quality due to poorer completion.

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