

# Frequency of visual field testing when monitoring patients newly diagnosed with glaucoma: mixed methods and modelling

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**Declared competing interests of authors:** none

Published August 2014

DOI: 10.3310/hsdr02270

## Plain English summary

### Visual field testing for monitoring newly diagnosed glaucoma

Health Services and Delivery Research 2014; Vol. 2: No. 27

DOI: 10.3310/hsdr02270

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## Plain English summary

**G**laucoma, an age-related eye disease, can lead to blindness if left untreated. The risk of blindness from glaucoma is relatively low but is determined largely by the severity of disease at diagnosis. It is likely that many of those who present late have rapidly progressing disease. Once diagnosed, a patient must be monitored for life using a machine that detects worsening ('progression') of their vision ['visual field' (VF)]. Patients with fast VF progression are in greater danger of going blind, in a given time frame, than patients with slow progression. However, VF test measurements can fluctuate considerably, meaning that patients need several tests over a period of time before any change can be detected or acted on – this can be expensive for the NHS. We set out to see if the benefits of extra tests were cost-effective. We first established, using a clinical audit, that patients are tested less frequently than is recommended in guidelines. Next, we found that eye doctors thought the idea of increased testing would be useful but not practical given current NHS resources. Patient interviews (focus groups) indicated that, although patients do not like VF testing, and some raised concerns about its current delivery, they accepted it as an important part of their clinical care. Another study, making predictions based on statistical analysis of large numbers of VF data, indicated that increasing frequency of VF testing could identify progression sooner than current practice. Furthermore, an examination of costs and benefits (health economics) suggested that increased monitoring of the VF in diagnosed patients is likely to also be cost-effective.

# Health Services and Delivery Research

ISSN 2050-4349 (Print)

ISSN 2050-4357 (Online)

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The research reported in this issue of the journal was funded by the HS&DR programme or one of its proceeding programmes as project number 10/2000/68. The contractual start date was in October 2011. The final report began editorial review in July 2013 and was accepted for publication in March 2014. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HS&DR editors and production house have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the final report document. However, they do not accept liability for damages or losses arising from material published in this report.

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