



Title Open Angle Glaucoma – Diagnosis, Follow-up, and Treatment
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Aim

To identify the scientific evidence behind different methods of diagnosing and treating glaucoma.

Conclusions and results

The causes of glaucoma are not fully understood, but elevated intraocular pressure is the most important risk factor. All treatment strategies aim at reducing intraocular pressure to delay progression of the disease.

- New testing methods (SITA tests for the Humphrey perimetry) yield high diagnostic accuracy for glaucoma and take approximately half the time of previous tests (Limited scientific evidence: Evidence Grade 3).
- In assessment of the optic disc, mono- or stereophotographs yield low to moderately high diagnostic accuracy (Limited scientific evidence: Evidence Grade 3).
- In manifest glaucoma, treatment to reduce intraocular pressure delays the progression of visual field loss (Limited scientific evidence: Evidence Grade 3).
- No conclusive evidence shows whether surgical or laser treatment strategies are more effective than medical treatment (topical eye drops) in lowering intraocular pressure (Contradictory scientific evidence).
- Due to the slow course of glaucoma and the relatively high age of patients, there is a risk that examination and treatment are given low priority. Hence, special attention should be directed at assuring that the needs for diagnosis, follow-up, and treatment are met among these patients.
- No conclusive evidence shows which methods of diagnosis, follow-up, and treatment for glaucoma are most cost effective (Insufficient scientific evidence).

Methods

Assessment was based on systematic review, giving consideration to inclusion and exclusion criteria, evidence

grading, QALY, and economic/ethical implications.

Further research/reviews required

The systematic literature review revealed major gaps in knowledge, and it has not been possible to answer all of the questions originally formulated in the project plan.

The following questions/areas have been identified as particularly urgent topics for future research:

- Which diagnostic methods are the most effective for early identification of glaucoma damage and the progression of manifest injuries?
- Are surgical/or laser therapies more effective than pharmacotherapy?