

# Prevalence and Severity of Undetected Manifest Glaucoma: Results from the Early Manifest Glaucoma Trial Screening

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**PURPOSE:** To estimate the prevalence and severity of undetected glaucoma in the population.

**DESIGN:** Cross-sectional study.

**PARTICIPANTS:** A total of 32,918 subjects aged 55 to 79 years from Malmö, Sweden, who were screened between 1992 and 1997. All subjects in the screened age groups living in the catchment area, and for whom there were no recent records at the Malmö University Hospital Ophthalmology department, were invited. The main purpose of the screening was to recruit subjects for the Early Manifest Glaucoma Trial.

**METHODS:** We registered the age, sex, and amount of visual field loss in subjects with previously undiagnosed glaucoma identified at the screening. The disease was categorized into 5 stages based on perimetric mean deviation values.

**MAIN OUTCOME MEASURES:** Prevalence of undetected glaucoma at various disease stages in different age groups expressed as percentages.

**RESULTS:** Among the screened subjects, who were 77.5% of all invited subjects, a total of 406 subjects (1.23%) were identified with previously undetected glaucoma. Prevalence increased with age, from 0.55% at 55 to 59 years to 2.73% at 75 to 79 years. Unilateral disease accounted for 66% of all cases. Extent of visual field loss was similar in all age groups from 60 years and more. Most eyes had early (35%) or moderate (31%) glaucomatous visual field defects, but 134 subjects (33%) had advanced visual field loss in at least 1 eye. No subject was blind in both eyes, but 3.4% of the newly diagnosed patients were unilaterally blind because of glaucoma.

**CONCLUSIONS:** Prevalence of undetected glaucoma increased with age, whereas disease severity did not increase in subjects older than 60 years of age. One third of subjects with previously undetected glaucoma had advanced or later-stage disease in at least 1 eye. Unilaterally blind subjects were present in all age groups.

**FINANCIAL DISCLOSURE(S) :** Proprietary or commercial disclosure may be found after the references.

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