

The Cost-Effectiveness of Routine Identification and Subsequent Medical Treatment of Primary Open-Angle Glaucoma in the United States

This study estimated the incremental cost-effectiveness of routine glaucoma assessment and treatment under current eye care visit and treatment patterns and different levels of treatment effectiveness. The study found that glaucoma treatment was highly cost-effective when the costs of diagnostic assessments were excluded and were reasonable and in line with other health interventions even when diagnostic assessment costs were included and assuming conservative efficacy. Compared to no treatment and when including diagnostic assessment costs, the incremental cost-effectiveness of routine assessment and treatment was \$46,000 per QALY gained assuming conservative treatment efficacy and \$28,000 per QALY gained assuming optimistic treatment efficacy. Compared to no treatment and when excluding diagnostic assessment costs, the incremental cost-effectiveness of routine assessment and treatment was \$20,000 per QALY gained assuming conservative treatment efficacy and \$11,000 per QALY gained assuming optimistic treatment efficacy.

Incremental Cost-Effectiveness of Routine Assessment and Treatment Compared to no Care

	Cost Per Simulated Agent*			Outcomes Per Simulated Agent*		Quality-Adjusted Life Years (QALYs)	Incremental Cost-Effectiveness Ratios‡		
	Full Ophthalmologic Costs	Nursing Home Costs	Total Costs	Total Costs minus Assessment Cost	Years Without Visual Impairment and Blindness†		Total Cost Per Year of Normal Sight Gained	Total Cost Per QALY Gained	Total Cost minus Assessment Cost Per QALY Gained
No treatment	\$0	\$104	\$104	\$104	17.721	15.499	NA	NA	
Routine diagnosis and subsequent treatment, EMGT efficacy	\$417	\$78	\$495	\$274	17.742	15.508			
Incremental (compared with no treatment)	\$417	(\$26)	\$391	\$170	0.021	0.009	\$19,000	\$46,000	\$20,000
Routine diagnosis and subsequent treatment, CIGTS efficacy	\$415	\$60	\$475	\$253	17.767	15.512			
Incremental (compared with no treatment)	\$415	(\$44)	\$371	\$149	0.045	0.013	\$8,000	\$28,000	\$11,000