Expert commentary on: Chou R, Dana T, Bougatsos C, Grusing S, Blazina I. Screening for impaired visual acuity in older adults: updated evidence report and systematic review for the US Preventive Services Task Force. JAMA. 2016;315:915-33.

Commentary

The ambitious review by Chou and colleagues assesses a screening–treatment-outcome pathway and gives a counterintuitive result: Screening detects more vision problems than usual care (27% vs 3% in 1 study), early treatment is effective, but there is no evidence that screening benefits older adults.

This apparent disconnect may simply relate to sample size. Most healthy older adults do not have untreated vision problems, and available treatments are only modestly effective. Thus, demonstrating benefit would require larger populations than have been studied.

The review focused on refractive error, cataracts, and macular degeneration, which are the most common—but not the only— causes of disabling vision problems in older adults.

Heterogeneity in vision problems may explain why screening questions seemed to have poor accuracy. Screening questions try to capture all vision problems, whereas the comparator screening test (Snellen chart) is specific to vision acuity.

Useful interventions are not always direct treatments. If screening detects a progressive vision problem and the patient is referred to a low-vision service, has home adaptations, and makes an informed decision to stop driving, screening, has, arguably, been successful. However, available studies using such hard clinical endpoints as vision acuity at follow-up were not designed to assess patient outcomes with this level of granularity.

To interpret this review, clinical context is important. It focused on asymptomatic older adults in primary care settings. We should avoid extrapolating the results to vision screening of frail elderly persons or comprehensive geriatric assessment. In those settings, the prevalence of potentially disabling vision symptoms will be higher and screening will more likely show benefit.

The review conclusion of “insufficient evidence” for screening is reasonable. It recognizes that better evidence for clinical and economic effects is needed before vision screening becomes part of a routine older adult health-check. The conclusion does not preclude active case-finding in high-risk populations nor comprehensive assessment of older adults presenting with vision symptoms.

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