U.S. Preventive Services Task Force

Screening for Impaired Visual Acuity in Older Adults: Recommendation Statement

▶ See related Putting Prevention into Practice on page 189.

This summary is one in a series excerpted from the Recommendation Statements released by the U.S. Preventive Services Task Force (USPSTF). These statements address preventive health services for use in primary care clinical settings, including screening tests, counseling, and preventive medications.

EB CME

This clinical content conforms to AAFP criteria for evidence-based continuing medical education (EB CME). See CME Quiz on page 133.

A collection of USPSTF recommendation statements reprinted in *AFP* is available at http://www.aafp.org/afp/uspstf.

The complete version of this statement, including supporting scientific evidence, evidence tables, grading system, members of the USPSTF at the time this recommendation was finalized, and references, is available on the USPSTF Web site at http://www.uspreventiveservicestaskforce.org.

Summary of Recommendation and Evidence

The U.S. Preventive Services Task Force (USPSTF) concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for visual acuity for the improvement of outcomes in older adults *(Table 1)*. **I statement.**

Rationale

Importance. *Impairment of visual acuity—best-corrected vision worse than 20/50—is a serious public health problem in older adults. The prevalence in adults older than 60 years is approximately 9 percent.*

Detection. *There is adequate evidence that visual acuity testing does not accurately identify early age-related macular degeneration (AMD). Evidence that screening with a visual acuity test accurately identifies persons with cataracts is inadequate. There is convincing evidence that screening with a visual acuity test identifies persons with refractive error. The USPSTF found convincing evidence that screening questions are not as accurate as visual acuity testing for assessing visual acuity.*

Benefits of detection and early treatment. *There is inadequate direct evidence that screening and early interventions for impairment of visual acuity by primary care physicians improve functional outcomes in older adults. The USPSTF found adequate*

Table 1. Screening for Impaired Visual Acuity in Older Adults: Clinical Summary of the USPSTF Recommendation*

Population	Adults 65 years or older
Recommendation	Grade I: insufficient evidence
Risk assessment	Older age is an important risk factor for most types of visual impairment. Additional risk factors include: • For cataracts: smoking, alcohol use, exposure to ultraviolet light, diabetes mellitus, corticosteroid use, and black race • For age-related macular degeneration: smoking, family history, and white race
Screening tests	Visual acuity testing (e.g., the Snellen eye chart) is the usual method for screening for impairment of visual acuity in the primary care setting. Screening questions are not as accurate as a visual acuity test.
Balance of harms and benefits	There is no direct evidence that screening for vision impairment in older adults in primary care settings is associated with improved clinical outcomes. There is evidence that early treatment of refractive error, cataracts, and age-related macular degeneration may lead to harms that are small. The magnitude of net benefit for screening cannot be calculated because of a lack of evidence.
Other relevant USPSTF recommendations	Recommendations on screening for glaucoma and on screening for hearing loss in older adults can be accessed at http://www.uspreventiveservicestaskforce.org.

NOTE: *For the full USPSTF recommendation statement and supporting documents, visit http://www.uspreventiveservicestaskforce.org.*

USPSTF = U.S. Preventive Services Task Force.

**—This recommendation does not cover screening for glaucoma.*

evidence that early treatment of refractive error, cataracts, and AMD improves or prevents loss of visual acuity. However, there was inadequate evidence that treatment improves functional outcomes.

Harms of detection and early treatment. *There is adequate evidence that early treatment of refractive error, cataracts, and AMD may lead to harms that are small.*

USPSTF assessment. *The USPSTF concludes that the evidence is insufficient on whether screening older adults for visual impairment improves functional outcomes. The balance of benefits and harms cannot be determined.*

Clinical Considerations

Patient population. This recommendation statement applies to adults 65 years or older.

Assessment of risk. Older age is an important risk factor for most types of visual impairment. Additional risk factors for cataracts are smoking, alcohol use, exposure to ultraviolet light, diabetes mellitus, corticosteroid use, and black race. Risk factors for AMD include smoking, family history of AMD, and white race.

Screening tests. A visual acuity test (e.g., the Snellen eye chart) is the accepted method for screening for visual acuity impairment in the primary care setting. Screening questions are not as accurate as visual acuity testing for identifying visual acuity impairment. Evidence is limited on the use of other vision tests, including pinhole testing, the Amsler grid (a chart used to test central vision to detect AMD), or funduscopy (visual inspection of the interior of the eye), in screening in primary care to detect visual impairment caused by AMD or cataracts.

Treatment. Most older adults will need some type of corrective lenses. The treatment for cataracts is surgical removal of the cataract. Treatments for exudative (or wet) AMD include laser photocoagulation, verteporfin, and intravitreal injections of vascular endothelial growth factor inhibitors. Antioxidant vitamins and minerals are treatments for dry AMD, but evidence of their effectiveness is limited.

Other approaches to prevention. This recommendation does not cover screening for glaucoma. The USPSTF review and recommendation statement on screening for glaucoma are available on the USPSTF Web site. The USPSTF is updating the review and recommendation on fall prevention.

This recommendation statement was first published in *Ann Intern Med.* 2009;151(1):37-43. The "Other Considerations," "Discussion," and "Recommendations of Others" sections of this recommendation statement are available at http://www.uspreventiveservicestaskforce.org/uspstf/uspsviseld.htm.