
Putting Prevention into Practice

An Evidence-Based Approach

Screening for Impaired Visual Acuity in Older Adults

KENNETH W. LIN, MD, *Assistant Professor, Department of Family Medicine, Georgetown University School of Medicine*

EWELL M. HOLLIS, MD, MPH, *General Preventive Medicine Residency, Uniformed Services University of the Health Sciences*

► See related U.S. Preventive Services Task Force Recommendation Statement on page 185.



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

The case study and answers to the following questions on screening for impaired visual acuity in older adults are based on the recommendations of the U.S. Preventive Services Task Force (USPSTF), an independent panel of experts in primary care and prevention that systematically reviews the evidence of effectiveness and develops recommendations for clinical preventive services. More detailed information on this subject is available in the USPSTF Recommendation Statement and the evidence synthesis on the USPSTF Web site (<http://www.uspreventiveservicestaskforce.org>). The practice recommendations in this activity are available at <http://www.uspreventiveservices.taskforce.org/uspstf/uspviseld.htm>.

Case Study

A 68-year-old black man presents for a routine checkup and refill of his hypertension medication. He has smoked a pack of cigarettes daily for more than 45 years. He asks if he should be screened for cataracts, which his father developed in his 60s. The patient reports no difficulty with his vision and no problem driving at night.

Case Study Questions

- Based on the recommendation from the U.S. Preventive Services Task Force (USPSTF), which one of the following statements about screening for visual acuity is most accurate for this patient?
 - He should be screened because of his family history.
 - He should be screened because of his sex.
 - He should be screened because of his race.
 - There is insufficient evidence that screening with a visual acuity test accurately identifies persons with cataracts.
 - There is insufficient evidence that early treatment of cataracts leads to harms.
- According to the USPSTF, which one of the following statements about vision screening in older adults is correct?
 - The prevalence of impaired visual acuity in adults older than 60 years is approximately 27 percent.
 - Impaired visual acuity is defined as best-corrected vision worse than 20/60.
 - This USPSTF recommendation applies to adults older than 55 years.
 - This USPSTF recommendation does not cover screening for glaucoma.
 - Screening for visual impairment in older adults improves functional outcomes.
- Which of the following statements about the early detection of impaired visual acuity in older adults is/are correct?
 - Screening with a visual acuity test accurately identifies persons with refractive errors.
 - Screening with a visual acuity test accurately identifies persons with early age-related macular degeneration.
 - Screening with a visual acuity test accurately identifies persons with cataracts.
 - Screening with a visual acuity test is more accurate than using screening questions to assess visual acuity.

Answers appear on the following page.

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Answers

1. **The correct answer is D.** The USPSTF found insufficient evidence that screening with a visual acuity test accurately identifies persons with cataracts. The risk of cataract development increases with age. Additional risk factors include black race, smoking, alcohol or corticosteroid use, exposure to ultraviolet light, and diabetes mellitus. The treatment for cataracts is surgical removal of the cataract. There is adequate evidence that early treatment of cataracts may lead to harms that are small. The USPSTF concluded that there is insufficient evidence to assess the balance of benefits and harms of screening for visual acuity for the improvement of functional outcomes in older adults.

2. **The correct answer is D.** The prevalence of impaired visual acuity in adults older than 60 years is approximately 9 percent. Impaired visual acuity is defined as best-corrected vision worse than 20/50. The USPSTF recommendation statement applies to adults 65 years or older, and does not cover screening for glaucoma, which was separately reviewed. Currently, there is inadequate direct evidence that screening for impairment of visual acuity improves functional outcomes, such as reducing the risk of falls or fractures, in older adults.

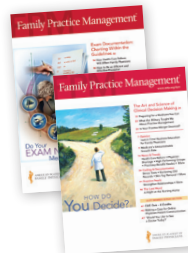
3. **The correct answers are A and D.** There is convincing evidence that screening with a visual acuity test identifies persons with refractive errors. There is adequate evidence that visual acuity testing does not accurately identify early age-related macular degeneration. There is inadequate evidence that screening with a visual acuity test accurately identifies persons with cataracts. Screening questions are not as accurate as visual acuity testing (e.g., the Snellen eye chart) for assessing visual acuity.

SOURCES

U.S. Preventive Services Task Force. Screening for impaired visual acuity in older adults: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med.* 2009;151(1):37-43, W10.

Chou R, Dana T, Bougatsos C. Screening older adults for impaired visual acuity: a review of the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med.* 2009;151(1):44-58, W11-W20. ■

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