Screening for Hearing Loss in Older Adults: Recommendation Statement

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 hearing loss in asymptomatic adults 50 years or older (Table 1). I statement.

This recommendation applies to asymptomatic adults 50 years or older. It does not apply to persons seeking evaluation for perceived hearing problems or for cognitive or affective symptoms that may be related to hearing loss. These persons should be assessed for objective hearing impairment and treated when indicated.

Rationale
Importance. Age-related sensorineural hearing loss is a common health problem among adults 50 years or older. Hearing loss can affect social functioning and quality of life.

Detection. Convincing evidence shows that screening tools can reliably and accurately identify adults with objective hearing loss. Clinical tests used to screen for hearing impairment include testing whether a person can hear a whispered voice, a finger rub, or a watch tick at a specific distance. Perceived hearing loss can be assessed by asking a single question (for example, “Do you have difficulty with your hearing?”) or with a more detailed questionnaire, such as the Hearing Handicap Inventory for the Elderly–Screening Version (HHIE-S). A handheld screening instrument consisting of an otoscope with a built-in audiometer can also be used.

Benefits of detection and early treatment. Because of a paucity of directly applicable trials, evidence is inadequate to determine whether screening for hearing loss improves health outcomes in persons who are unaware of hearing loss or who have perceived hearing loss but have not sought care. One good-quality study showed that hearing aids can improve self-reported hearing, communication, and social functioning for some adults with age-related hearing loss. This study nearly exclusively evaluated white male veterans with moderate hearing loss and moderate to severe perceived hearing impairment, more than one-third of whom had been referred for evaluation of hearing problems; as such, these findings were of limited applicability to a hypothetical asymptomatic, screened population. The only randomized trial that directly evaluated the effect of screening for hearing impairment—rather than the effect of treatment alone—was not primarily designed nor had sufficient statistical power to detect differences in hearing-related function. The USPSTF concludes that the evidence is inadequate to assess the benefit of screening and early treatment in an unselected screening population.

Harms of detection and early treatment. Because of a lack of studies, evidence to determine the magnitude of harms of screening for hearing loss in older adults is inadequate; however, given the noninvasive nature of both screening and associated diagnostic evaluation, these harms are probably small to none. Adequate evidence shows that the harms of treatment of hearing loss in older adults are small to none.

USPSTF assessment. The USPSTF concludes that evidence is lacking, and the balance of benefits and harms of screening for hearing loss in adults 50 years or older cannot be determined.

Clinical Considerations
PATIENT POPULATION
This recommendation applies to asymptomatic adults 50 years or older, but not to persons seeking evaluation for perceived hearing problems; as such, these findings were of limited applicability to a hypothetical asymptomatic, screened population. The only randomized trial that directly evaluated the effect of screening for hearing impairment—rather than the effect of treatment alone—was not primarily designed nor had sufficient statistical power to detect differences in hearing-related function. The USPSTF concludes that the evidence is inadequate to assess the benefit of screening and early treatment in an unselected screening population.
problems or for cognitive or affective symptoms that may be related to hearing loss. These persons should be assessed for objective hearing impairment and treated when indicated.

**RISK ASSESSMENT**

Aging is the most important risk factor for hearing loss. Presbycusis, a gradual, progressive decline in the ability to perceive high-frequency tones due to degeneration of hair cells in the ear, is the most common cause of hearing loss in older adults. However, hearing loss may result from several contributing factors, such as a history of exposure to loud noises or ototoxic agents, including occupational exposures; previous recurring inner ear infections; genetic factors; and certain systemic diseases, such as diabetes mellitus.

**SCREENING TESTS**

Available tests include physical diagnostic tests, such as the whispered voice, finger rub, and watch tick tests; single-question or longer patient questionnaires; and handheld audiometers. All are relatively accurate and reliable tools for identifying objective hearing loss. In addition, self-administered questionnaires, such as HHIE-S, can identify adults with perceived (or subjective) hearing difficulty. Not all adults with perceived hearing difficulty have objective hearing loss.

**TREATMENT**

Before a person receives a hearing aid, diagnosis of objective hearing loss should be confirmed with a pure-tone audiogram. Fair evidence from studies in highly selected populations shows that hearing aids can improve self-reported hearing, communication, and social functioning for some adults with age-related hearing loss. However, health-related quality of life is improved for some adults with moderate to severe hearing loss who use hearing aids compared with those who do not.1

Cost. The cost of screening varies according to the test.

The cost of a questionnaire consists of the time required of the patient and clinician. In-office clinical techniques (whispered voice, finger rub, or watch tick tests) and audiometry are quick to perform; however, handheld audiometers have up-front equipment costs. Diagnostic confirmation of a positive screen is typically done with a pure-tone audiogram, which requires a soundproof booth and trained personnel to administer the test, and takes approximately one hour to complete. The cost of a hearing aid is a barrier for many older adults because it is not covered by Medicare or many private insurance companies.

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The “Other Considerations,” “Discussion,” and “Recommendations of Others” sections of this recommendation statement are available at http://www.uspreventiveservicestaskforce.org/uspshear.htm.

The U.S. Preventive Services Task Force recommendations are independent of the U.S. government. They do not represent the views of the Agency for Healthcare Research and Quality, the U.S. Department of Health and Human Services, or the U.S. Public Health Service.

**REFERENCES**