AMERICAN COCHLEAR IMPLANT ALLIANCE

Research. Advocacy. Awareness.

Comments of American Cochlear Implant Alliance on the
U.S. Preventive Services Task Force Draft Recommendation Statement on Hearing Loss in Older Adults: Screening
October 5, 2020

The U.S. Preventive Services Task Force concluded that current evidence is insufficient to assess the balance of benefits and harms of screening for hearing loss in asymptomatic adults aged 50 years or older. While we agree that there are few studies of the efficacy of screening adults for hearing loss, there is a large and growing body of published literature documenting the health and cognitive impact of untreated or undertreated hearing loss in adults.

We disagree with the Task Force recommendation not to encourage screening measures as part of routine healthcare. Screening does not necessarily require audiometric testing. It can consist of functional observation, whispered voice, or questionnaires. Until there is a greater degree of hearing loss evaluation being undertaken in adults, it will continue to be difficult to address the hearing loss assessment process and its impact on health outcomes. Studies need to be conducted; unless there are screening processes in place, the current situation with very little information to guide primary care practitioners will continue. We feel it is irresponsible not to encourage a proactive approach to assessment at a time when new studies have been published linking health, cognition, and quality of life with appropriate treatment of hearing loss in individuals of all ages and with all levels of hearing loss. ***The USPSTF draft recommendation represents a continuance of the long-standing failure to examine and address hearing loss as a relevant component of healthcare.***

These comments of American Cochlear Implant (CI) Alliance on hearing screening of *asymptomatic* adults are informed by our collective experiences related to screening of adults with *significant* severe to profound hearing loss. As is the case for adults with asymptomatic hearing loss, there is a paucity of screening being conducted for adults with greater levels of hearing loss who are often undertreated for their hearing impairment. We have sought solutions for improving (CI) referrals for those using hearing aids who are appropriate candidates for cochlear implantation. There are well documented advances in CI outcomes; the median improvement for speech recognition by Medicare beneficiaries is 53%.[1] Nonetheless, knowledge about cochlear implant candidacy and outcomes is limited and CI referrals by

[1] Zwolan TA, Kallogjeri, Firszt JB, Buchman CA. Assessment of cochlear implants for adult Medicare beneficiaries aged 65 years or older who meet expanded indications of open-set sentence recognition: A multicenter nonrandomized clinical trial. *JAMA Otolaryngology-Head & Neck Surgery*. 2020.

primary care physicians are rare. Even hearing healthcare professionals have an uneven record of referral, which has contributed to adult CI utilization rates that hover around 10%.[2] [3]

American Cochlear Implant Alliance

The American Cochlear Implant Alliance (ACI Alliance) is a non-profit organization with the mission to address barriers to cochlear implantation by sponsoring research, driving heightened awareness and advocating for improved access to cochlear implants for patients of all ages across the United States. ACI Alliance members are hearing care clinicians including surgeons, audiologists, speech-language pathologists (SLPs) as well as scientists, educators, adults with hearing loss, and family members.

Hearing Loss in Older Adults

Hearing disorders are most common in old age. Progressive sensorineural hearing loss in older adults is typically bilateral and is referred to as presbycusis. Approximately one in three people in the United States between the ages of 65 and 74 have hearing loss; nearly half of those older than 75 have difficulty hearing.[4]

Hearing loss is under-detected in individuals with mild and moderate hearing loss.[5] Hearing loss may occur gradually and people may not notice the degree to which they are relying on lip reading and context to compensate for what they're not hearing. To make up for lost hearing, adults typically seek face-to-face interactions. Adults who have adjusted to slowly declining hearing may not even realize what they are doing to communicate. Hearing loss is often progressive and hence identifying individuals with early hearing loss is extremely helpful.

Undertreatment of Hearing Loss

Just as it is overlooked with mild hearing loss, hearing loss is also substantially undertreated in adults with severe to profound hearing loss. In that regards, American Cochlear Implant Alliance is concerned about the low number of referrals by primary care physicians as well as hearing health professionals for individuals with known hearing loss (typically utilizing hearing aids), to specialized cochlear implant (CI) centers for evaluation. Such referrals for individuals who may benefit from CI are inconsistent—even by professionals with hearing healthcare training.[2,3] [6]

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[2] Sorkin DL. Cochlear implantation in the world's largest medical device market: Utilization and awareness of cochlear implants in the United States. *Cochlear Implants International*, 2013, 14:S1, S4-S12.

[3] Sorkin DL, Buchman CA. Cochlear Implant Access in Six Developed Countries. *Otol Neurotol* 2016 Feb;37(2):e161-4.

[4] NIDCD, NIH, Age-Related Hearing Loss, NIH Pub. No. 97-4235, March 2016, https://www.nidcd.nih.gov/health/age-related-hearing-loss

[5] Bogardus ST, Yueh, B, Shekelle PG. Screening and management of Adult Hearing loss in Primary Care. *JAMA*, 2003, Vol 289, No 15.

[6] Zwolan TA, Schvartz-Leyzac, Pleasant T. Development of a 60/60 for referring adults for a traditional cochlear implant candidacy evaluation. *Otology & Neurotology*, 41:895-900, 2020.

There is an increasing body of literature documenting the benefits of appropriate treatment of hearing loss across the continuum—mild to profound. Research indicates that hearing loss is the single largest modifiable risk factor for dementia with correct interventions. A Delphi consensus panel of 30 international hearing loss specialists conducted a systematic review of the literature and clinical expertise related to cochlear implantation. This process resulted in 20 evidence-based consensus statements to inform clinical practice and improve hearing and quality of life in eligible adults. Statement 2 of the document states: "Detection of hearing loss in adults is important; pure-tone audiometry screening methods are considered the most effective. The addition of a questionnaire or interview to the screening can improve the detection of SNHL." The Consensus Panel found that hearing loss detection in adults is heterogeneous. Further screening may be applied to the general population or only to high-risk groups. The evidence identified as part of the review suggests that screening for hearing loss in adults is important for identification of potential candidates for cochlear implantation and cost-effective. However, some of these data only apply to occupational screening in individuals who are at high risk of hearing loss owing to high noise levels in the workplace. The Delphi consensus panel noted that it is important to identify adults with hearing loss who could benefit from cochlear implantation even in those regions without routine hearing screening and that the addition of questionnaires may be beneficial. [7] [8] [9]

Testing Approaches for Older Adults

There are effective methods of identifying hearing loss in adults as part of primary healthcare that do not require formal testing. The USPSTF comments mention whispered voice or finger rub; there are other methods that are measures of functional performance that are helpful. We don't feel that formal testing using an audiometer in a primary care setting is necessary.

Observational assessments during office physician visits are useful. A straightforward method to screen for hearing loss during a wellness visit is for the physician to go to the sink in the exam room and wash her hands. With the water running and one's back to the patient, the doctor could then query the patient. If the patient doesn't respond in that situation (no visual clues, additional noise in the room), that is an indication that a conversation about hearing loss should be initiated. Such discussion could include a referral for hearing testing with a hearing health clinician. We do not believe that it is practical for a primary care office to conduct formal hearing loss testing.[10]

Questionnaires may be utilized such as "The Hearing Handicap Inventory for Adults" and used verbatim or adapted. Patients may be asked to respond to a brief questionnaire as part of the paperwork typically completed for a wellness visit. Functional questions such as the ones below are more helpful than asking someone "Do you have difficulty hearing?" For example, questions might include:

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[7] Buchman CA, Gifford RH, Haynes DS et al. Unilateral Cochlear Implants for Severe, Profound, or Moderate Sloping to Profound Bilateral Sensorineural Hearing Loss: A Systematic Review and Consensus Statements. JAMA Otolaryngol Head Neck Surg, published online August 27, 2020.

[8] Agarwal G, Nagpure PS, Pal KS, Kaushal AK, Kumar M. Audiometric notching at 4 kHz: Good screening test for assessment of early onset of occupational hearing loss. *Indian J Otol*. 2015;21(4):270-273.

[9] Morris AE, Lutman ME, Cook AJ, Turner D. Economic evaluation of screening 60- to 70-year-old adults for hearing loss. *J Public Health (Oxf)*. 2013;35(1):139-146.

[10] ACI Alliance, Adult Candidacy for Cochlear Implantation: Clinical Guidance, https://www.acialliance.org/page/AdultCandidacy.

- Do you have trouble hearing the TV or radio at levels that are loud enough for others?
- Do you feel frustrated when talking to members of your family because you have difficulty hearing them?
- Do you have difficulty hearing or understanding co-workers, clients, or customers?
- Do you feel that any difficulty with your hearing limits your personal or social life?[11]

We encourage the use of such questionnaires as they open up the possibility for discussion with a physician about communication challenges that patients may be experiencing but are not cognizant of or have difficulty articulating. Family members may have noticed hearing changes but are often uncomfortable bringing up their concerns.

Primary care physicians are a critical link in the referral process connecting patients to appropriate medical specialists. Studies of referral patterns related to hearing loss of any level (mild to profound) to an appropriate hearing care specialist demonstrate that most primary care practitioners are unsure of whether and when to refer a patient with hearing loss to a hearing clinic. Additional focus and guidance could improve this long-standing problem.

[11] Newman CW, Weinstein BE, Jacobson GP, Hug GA. The Hearing Handicap Inventory for Adults [HHIA]: Psychometric adequacy and audiometric correlates. *Ear Hear*, 1990, 11, 430-433.