



Cochlear Implants (CI), Hearing Aids, and Older Adults

Q: When are older adults (age 65+) considered CI candidates under Medicare and how is testing performed?

A: Testing is performed by an audiologist in a sound booth in best aided condition (wearing two well fit hearing aids) using recorded sentences with no visual clues. Someone is a candidate for a cochlear implant under Medicare rules if they have at least bilateral (both ears) moderate (sloping) to profound hearing loss and are able to correctly identify no more than 40% of words in sentences during controlled testing in the ear to be implanted.

Q: What is the typical improvement in listening scores after an older adult receives a CI?

A: In a study of Medicare patients who received a CI, the median improvement for speech recognition in the implanted ear was 53% over the hearing aid only condition (Zwolan 2020).

Q: What proportion of adults who are CI candidates have one?

A: Between 6-10% of US adults who could benefit from a CI have one. CI utilization in children is around 60% (Sorkin 2013).

Q: What accounts for the difference in utilization between children and adults?

A: Children are tested at birth for hearing loss and families are advised on options for their child under Early Hearing Detection and Intervention, a federally funded program. There is no comparable process of advisement on hearing loss for adults.

Q: Isn't hearing aid utilization also low?

A: Across adults 70+ who have hearing loss (mild to profound), 30% have used hearing aids. Most people (who have hearing loss) are in the mild category, the group that is least likely to use hearing aids (NIH, 2016). Hearing aid utilization is highest among people with significant hearing loss: for those with profound hearing loss, hearing aid utilization is 90%; severe hearing loss: 70%; moderate hearing loss: 40%; mild hearing loss: 10% (Sorkin 2013, Gubler 2010).

Q: What proportion of people with profound hearing loss are CI candidates?

A: Most individuals with profound hearing loss (close to 100%) are CI candidates and do not demonstrate sufficient benefit from traditional amplification to have significant open set (no visual clues) listening (Sorkin 2020).

Q: How long do people wait before they move forward with a CI once they learn they are a candidate?

A: Mean duration of hearing loss in the ear to be implanted was 27.3 years, which included 7.8 years of severe to profound hearing loss. On average, these were long-time hearing aid users (mean=20.3 years) and had purchased on average six hearing aids prior to receiving a CI (Lupo 2020).

Q: Is there any disadvantage in waiting?

A: Longer periods of deafness (once an adult is a CI candidate) is associated with poorer post CI outcomes as well as declines in cognitive health and quality of life (Chen 2017).

Q: Why do people wait to receive a CI? Why is overall CI utilization so low?

A: Hearing aid audiologists and other dispensers do not consistently refer patients for CI evaluation; most do not know when to refer. This is not because of health insurance coverage as most public and private health insurance

covers cochlear implantation (unlike hearing aids). Hearing loss is poorly addressed in most medical school programs and relatively little hearing screening is carried out by primary care physicians. The evaluation for a cochlear implant is not completed by hearing aid dispensers; rather the patient must be referred on to a specialized CI practice. The CI evaluation is covered by Medicare and by most healthcare insurance. A guideline recently developed by Zwolan and others provides an easy to implement CI referral measure (“60/60 Guideline”) using measures that are collected during a hearing aid fitting (Sorkin 2013, Zwolan 2020).

Q: What is the standard of care for an adult with a bilateral severe, profound, or moderately sloping to profound hearing loss who does not sufficiently benefit from hearing aids?

A: A Delphi consensus panel of 30 international hearing experts voted on statements about cochlear implant use, informed by a systematic review of the literature and clinical expertise. This process resulted in 20 evidence-based consensus statements to inform clinical practice, increase CI access, and improve hearing and quality of life in eligible adults. The statements address awareness, best practice, factors related to outcomes, association of hearing loss and cognitive health and cost (Buchman 2020).

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