Clinical Referral Guidelines: Hearing Loss & CI Evaluation

Kevin Zhan, MD
Terry Zwolan, PhD, CCC-A
Kristen Caron, AuD

© 2026 continued.com, LLC. All rights reserved. Unauthorized reproduction prohibited. See final page for complete terms.

What's in This Handout

KEY TAKEAWAYS **3**
COURSE CONTENT **4**
INTERACTIVE WORKSHEET **13**
NOTES **23**
QUIZ SUMMARY **24**
REFERENCES **25**
ADDITIONAL INFORMATION **27–28**

Key Takeaways

Key Takeaway	Clinical Implication
Hearing loss is common but under-recognized and under-treated	One in three adults aged 65 to 74 has hearing loss. Patients rely on you to quickly and effectively identify and manage it.
Referrals are often delayed or missed	Patients average 10 years in hearing aids before an alternative, and 90% of patients who may benefit never get an evaluation. Delayed or missed referrals can delay access to information and options.
Guidelines define when to evaluate and refer	The 2024 AAO guideline follows a logical path: screen adults 50 and older, provide audiologic evaluation and amplification, and refer for cochlear implant evaluation when hearing aids are not enough.
Recognize undertreatment with functional questions	Ask about phone conversations without visual cues, TV without captions, and group conversations instead of asking whether the patient is happy with their hearing aids.
Re-evaluate objectively	Apparent satisfaction does not always mean hearing is optimized. Routine testing may reveal changes the patient has not noticed or reported.
Use the 60/60 guideline	Refer adults with a pure tone average (500, 1000, 2000 Hz) of 60 dB HL or greater in the better ear plus difficulty understanding speech with appropriately fit hearing aids. It does not guarantee candidacy.
Refer with confidence	Evaluation is not surgery. There is no obligation, and a specialist will explain all options and answer questions.
No referral is a bad referral	Even if a patient is not deemed a candidate, the evaluation provides a baseline for future testing. Earlier referral is associated with better outcomes.

Course Content

Learner Outcomes

- After this course, participants will be able to explain the importance of early cochlear implant referrals.
- After this course, participants will be able to describe evidence-based referral criteria for a cochlear implant evaluation.
- After this course, participants will be able to confidently refer a patient for a cochlear implant evaluation.

Why Hearing Care Needs a Clear Next Step

- Healthcare routinely screens, monitors, and refers when a condition needs additional care. Hearing care deserves that same level of attention.
- When patients continue to struggle, the next step should be clear and timely.
- Examples from the course: knee pain that does not respond to medications leads to an orthopedic referral, and vision loss may be treated with glasses or contacts until a diagnosis such as glaucoma or cataracts requires a different treatment.
- As their trusted medical specialist, patients rely on you to quickly and effectively identify and manage their hearing loss.

How common is hearing loss?

- 1 in 3 adults aged 65 to 74 has hearing loss in the US.
- 15% of all adults (37.5 million) have difficulty hearing.
- Despite being the most common sensory deficit among older adults, hearing loss is often under-recognized and under-treated.

When unaddressed, hearing loss adversely affects many aspects of life

Area	Risks noted in the course
Quality of life	Isolation, loneliness, depression, anxiety, financial burden, increased reliance on caregivers, and reduced access to education and employment.
Cognition	Cognitive decline, falls, and hospitalizations.
Overall health	Risk of hearing loss is higher in people with anxiety, depression, cardiovascular disease or schizophrenia, sleep apnea, high blood pressure, or high cholesterol.

The cochlear implant referral gap

- On average, patients spend 10 years in hearing aids before an alternative.
- 90% of patients do not get to an evaluation.
- 77% of recipients wish they were implanted earlier.
- Not every patient is a candidate, but delayed or missed referrals can delay access to information and options.

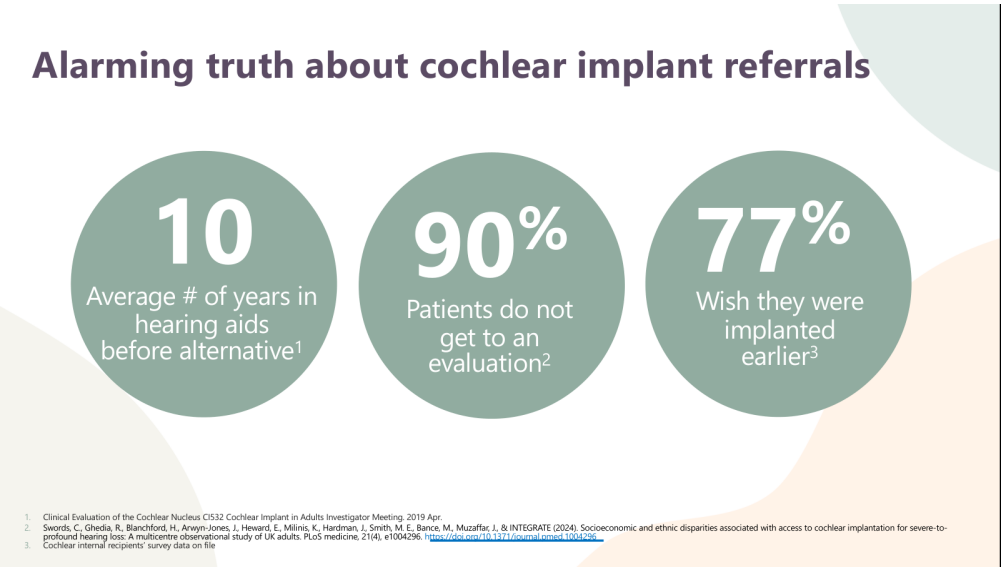


Figure 1. Three statistics on delayed and missed cochlear implant referrals.

Q1 **Quiz Hint:** About 90% of patients who may benefit from a cochlear implant never get to an evaluation.

Clinical Practice Guidelines

- The 2024 AAO-HNSF Clinical Practice Guideline: Age-Related Hearing Loss defines when hearing evaluation and referral are appropriate, giving a clear framework for action.
- Key recommendations follow a logical path: screen adults 50 and older, provide audiologic evaluation and amplification when appropriate, and refer for cochlear implant evaluation when hearing aids are not enough.
- In the guideline, a strong or key recommendation should generally be followed unless there is a compelling reason not to.

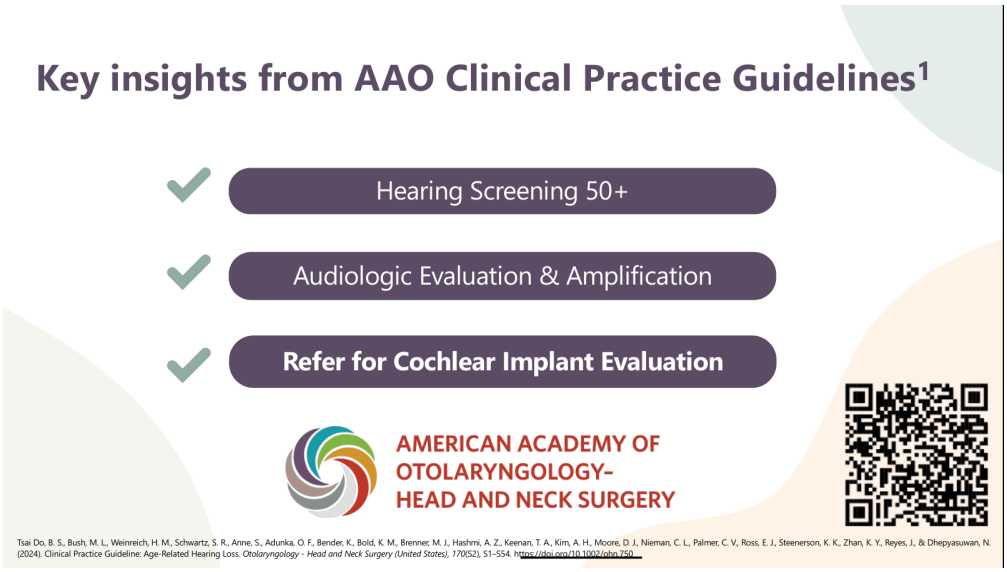


Figure 2. Key insights from the AAO Clinical Practice Guideline on age-related hearing loss.

Q2 **Quiz Hint:** The AAO guideline recommends screening adults 50 and older, providing audiologic evaluation and amplification when appropriate, and referring for cochlear implant evaluation when referral criteria are met.

Clinical consensus across organizations

Several evidence-based guidelines and professional statements support referral for cochlear implant evaluation when patients have persistent difficulty and limited benefit from appropriately fit hearing aids. The wording differs, but the clinical direction is consistent: when amplification is no longer adequate, evaluation is appropriate.

Organization or source	Guidance wording
AAO Age-Related Hearing Loss Guideline	“has appropriately fit amplification and persistent hearing difficulty with poor speech understanding”
Otology/Neurotology (Zwolan)	“meets the 60/60 guideline”
JAMA Otolaryngology–Head & Neck Surgery Review	“with severe, profound, or moderate sloping to profound bilateral sensorineural hearing loss”
AAO-HNS Position Statement	“with moderate to profound hearing loss who have failed a trial with appropriately fit hearing aids”
American Academy of Audiology	“whose hearing loss cannot be adequately addressed through acoustic amplification (e.g. hearing aids) alone”
American Cochlear Implant Alliance	“with hearing loss gains limited benefit from their current hearing aid(s) and desires improvement in their hearing”

Q3 **Quiz Hint:** Guidelines across organizations point to evaluation when hearing difficulty persists despite appropriately fit hearing aids and the referral criteria are met.

Three Essential Elements for Excellent Patient Care

For some patients, hearing aids may continue to be appropriate. For others, persistent difficulty despite hearing aids should prompt a different next step: evaluation for a cochlear implant. The course walks through three steps.

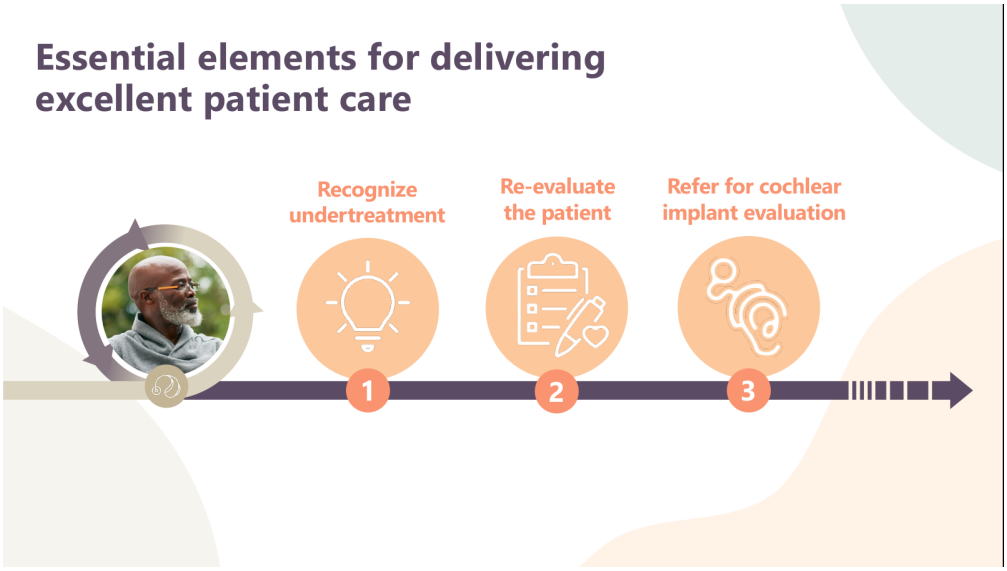


Figure 3. Three essential elements for delivering excellent patient care.

Step 1: Recognize when hearing loss is undertreated

Prompt	What to do
Notice	A patient with hearing aids still struggles to hear.
Ask yourself	Are hearing aids the best solution? Could a CI evaluation lead to a better outcome?
Act	Recognize potential cochlear implant candidates through functional and behavioral signs.

Signs that hearing loss may be undertreated:

- Claims their hearing aid is not powerful enough or returns often for adjustments.
- Background noise dramatically affects their understanding of speech.
- Relies on family members to call your practice or to speak for them during appointments.
- Needs to see your face or mouth to understand you when you speak.

Sometimes the signs are obvious, but sometimes more objective questions are needed. Instead of asking, “Are you happy with your hearing aids?” consider asking:

- Can you understand phone conversations without visual cues?
- Can you watch TV without captions?
- Can you participate in group conversations?

Clinical Scenario

A patient says: “I struggle to understand conversations in a noisy environment, and my kids say the volume is too loud when I watch TV. I spoke with my doctor, and they suggested trying another, more advanced hearing aid, but I’m not convinced it will help.”
These are meaningful functional concerns. This is the type of situation to pause and ask whether continued hearing aid changes are enough, or whether the patient needs a cochlear implant evaluation.

Step 2: Re-evaluate the patient's hearing

Prompt	What to do
Notice	The patient has functional and behavioral signs of hearing loss. It is time to consider a referral for cochlear implants.
Ask yourself	What is the criteria to refer?
Act	Conduct a hearing assessment to determine whether the pure tone average in the better ear meets or exceeds 60 dB HL.

Patients may not always recognize gradual changes themselves, so routine testing matters. Apparent satisfaction does not always mean hearing is optimized.

Clinical Scenario

During scheduled visits, a patient seems satisfied with their hearing aid and never mentions problems or asks for an adjustment. They are due for a hearing test, so a test is done, but the clinician assumes their hearing aids are working just fine.
Routine testing may reveal changes that the patient has not noticed or reported.

After re-evaluation, this patient's pure tone average is 83 dB in the right ear and 80 dB in the left ear, with word recognition scores of 30% and 32%. The patient has had a decrease in high-frequency hearing and meets the 60 dB criterion. This is a clear example of how objective testing can change the next step in care.

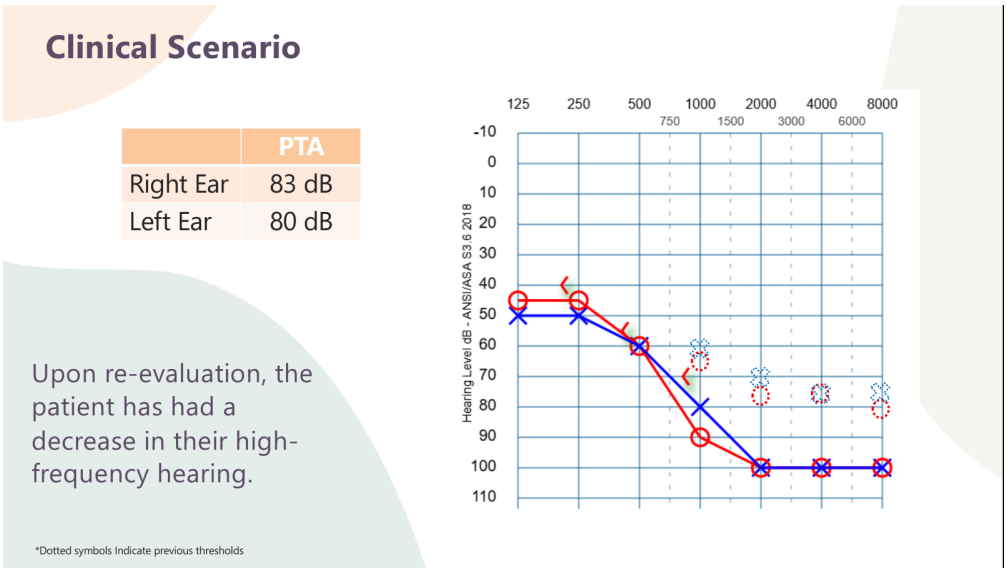


Figure 4. Clinical scenario audiogram and pure tone averages after re-evaluation.

The 60/60 referral guideline

- Audibility: pure tone average (500, 1000, 2000 Hz) greater than or equal to 60 dB in the better ear.
- Plus difficulty understanding speech with appropriately fit hearing aids.
- This provides a recommendation only of when an adult may be referred for a cochlear implant evaluation. It does not guarantee candidacy (adults only).

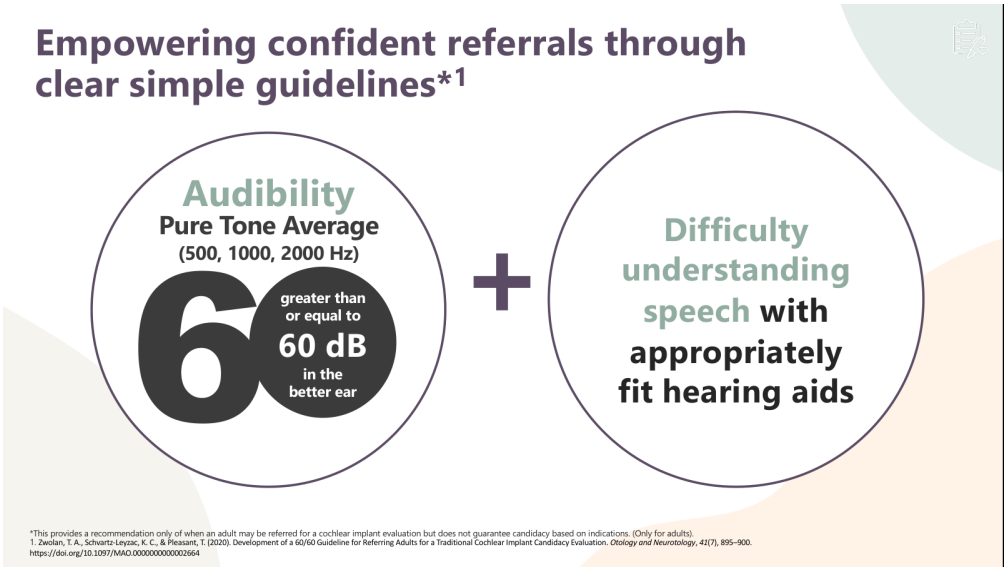


Figure 5. The 60/60 referral guideline for adults.

Step 3: Refer with confidence

Prompt	What to do
Notice	The patient meets the pure tone average criteria of 60 dB HL or greater for cochlear implant referral and is having trouble understanding speech with hearing aids.
Ask yourself	What do I need to support my patients' understanding of the importance of this referral?
Act	Follow the guidance, find local CI centers, and refer for a cochlear implant evaluation.

Key points to know about referral support for appropriate patients:

- There is no commitment to surgery at the time of referral. Initial referral is just for additional testing.
- Good hearing is essential for comprehension, connection, and communication, and supports physical and mental well-being.
- Evidence indicates that timely intervention is critical, as earlier implantation leads to better outcomes.
- The referring professional does not need to answer every question. The evaluation is where options can be reviewed in detail.

Patient Benefits and Outcomes

Compared with two hearing aids, adults with cochlear implants in the studies shown demonstrated improvements in everyday listening areas:

- 5x improved ability to understand what is said on TV.
- 11x improved ability to hear on the phone.
- 10x better hearing satisfaction.

A study of average performance at 6 months showed significantly improved speech understanding, both for words in quiet and for sentences in noise. Noise is often one of the most difficult listening environments and one where patients may continue to struggle despite hearing aids.

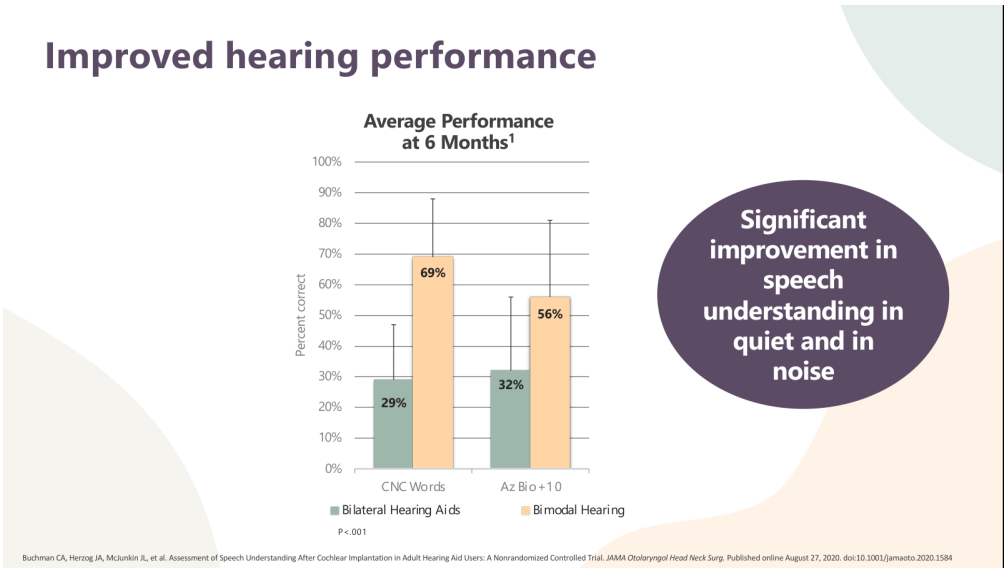


Figure 6. Average speech understanding at 6 months with bilateral hearing aids versus bimodal hearing.

Encouraging Patients: The Referral Conversation

Simple language to use with patients:

- Hearing loss, like many other conditions, can progress and become more severe over time. The progression can cause sounds to become less clear.
- Based on your recent hearing test and ongoing difficulty understanding speech with hearing aids, I strongly recommend a cochlear implant evaluation.
- There is no obligation. It is simply a chance for you to learn more and explore solutions that could improve your communication and quality of life.
- During the evaluation, a specialist will explain all your options and answer any questions.

Q4 **Quiz Hint:** An effective referral conversation explains that the evaluation is simply a chance to learn more and explore options, and that a specialist will explain all available options and answer questions.

Evidence-Guided Referral

- Evaluation does not equal surgery. Evaluation is diagnostic only, and it reduces anxiety for patients.
- Earlier referral equals better outcomes. It improves quality of life and speech understanding, and lowers the risk of long-term cognitive decline.
- No referral is a bad referral. Even if a patient is not deemed a candidate, it provides a baseline for future testing. 95% of patients who could benefit from a cochlear implant do not have one.

Q5 **Quiz Hint:** Cochlear implantation is associated with improved quality of life, better speech understanding, and a lower risk of long-term cognitive decline.

Act Now

- Find a local CI center near you.
- Request support materials and a collection of helpful resources, interactive tools, educational materials, and events for your patients.

Conclusion

- The goal is to help ensure individuals with hearing loss receive the right solution at the right time.
- Recognize undertreatment, re-evaluate the patient, and refer with confidence when hearing aids are no longer meeting patient needs.

Quiz Summary

The following quiz hints appeared throughout the course content. Use this section as a quick study reference.

Q1	**Quiz Hint:** About 90% of patients who may benefit from a cochlear implant never get to an evaluation.
Q2	**Quiz Hint:** The AAO guideline recommends screening adults 50 and older, providing audiologic evaluation and amplification when appropriate, and referring for cochlear implant evaluation when referral criteria are met.
Q3	**Quiz Hint:** Guidelines across organizations point to evaluation when hearing difficulty persists despite appropriately fit hearing aids and the referral criteria are met.
Q4	**Quiz Hint:** An effective referral conversation explains that the evaluation is simply a chance to learn more and explore options, and that a specialist will explain all available options and answer questions.
Q5	**Quiz Hint:** Cochlear implantation is associated with improved quality of life, better speech understanding, and a lower risk of long-term cognitive decline.

References

American Academy of Audiology. (2019, July). *Clinical practice guideline: Cochlear implants*.

American Academy of Otolaryngology–Head and Neck Surgery. (2020, November). *Position statement: Cochlear implants*.

American Cochlear Implant Alliance. (2017). *Adult candidacy for cochlear implantation: Clinical guidance details and sources*. Retrieved November 2025, from https://www.acialliance.org/page/AdultCandidacyRef

Besser, J., Stropahl, M., Urry, E., & Launer, S. (2018). Comorbidities of hearing loss and the implications of multimorbidity for audiological care. *Hearing Research, 369*, 3–14. https://doi.org/10.1016/j.heares.2018.06.008

Borgemenke, S., & Beverly, E. A. (2025). Hearing impairment among Medicare beneficiaries in the United States: Trends, comorbidities, and public health consequences. *Ear, Nose & Throat Journal*. https://doi.org/10.1177/01455613251370503

Buchman, C. A., Gifford, R. H., Haynes, D. S., Lenarz, T., O'Donoghue, G., Adunka, O., Biever, A., Briggs, R. J., Carlson, M. L., Dai, P., Driscoll, C. L., Francis, H. W., Gantz, B. J., Gurgel, R. K., Hansen, M. R., Holcomb, M., Karltorp, E., Kirtane, M., Larky, J., … Zwolan, T. (2020). Unilateral cochlear implants for severe, profound, or moderate sloping to profound bilateral sensorineural hearing loss: A systematic review and consensus statements. *JAMA Otolaryngology–Head & Neck Surgery, 146*(10), 942–953. https://doi.org/10.1001/jamaoto.2020.0998

Buchman, C. A., Herzog, J. A., McJunkin, J. L., et al. (2020). Assessment of speech understanding after cochlear implantation in adult hearing aid users: A nonrandomized controlled trial. *JAMA Otolaryngology–Head & Neck Surgery*. Advance online publication. https://doi.org/10.1001/jamaoto.2020.1584

CAM-MKTP-1282 ISS1 JUN24. *Grand Rounds Head Neck Professionals CI Referral Protocol*.

Centers for Disease Control and Prevention. (2024). *Signs of noise-induced hearing loss*. Retrieved October 24, 2025, from https://www.cdc.gov/hearing-loss/signs-symptoms/index.html

Clinical Evaluation of the Cochlear Nucleus CI532 Cochlear Implant in Adults Investigator Meeting. (2019, April). Data on file.

Dowell, R. C. (2016). The case for earlier cochlear implantation in postlingually deaf adults. *International Journal of Audiology, 55*(Suppl. 2), S51–S56. https://doi.org/10.3109/14992027.2015.1128125

Henshaw, H., Calvert, S., Heffernan, E., Broome, E., Burgon, C., Dening, T., & Fackrell, K. (2023). New horizons in hearing conditions. *Age and Ageing, 52*(8), 1–7. https://doi.org/10.1093/ageing/afad150

Hou, Y., Liu, B., et al. (2024). Relationship between hypertension and hearing loss: Analysis of the related factors. *Clinical Interventions in Aging, 19*, 845–856. https://doi.org/10.2147/CIA.S458869

Huang, A., Jiang, K., Lin, F., Deal, J., & Reed, N. (2023). Hearing loss and dementia prevalence in older adults in the US. *JAMA, 329*(2), 171–173. https://doi.org/10.1001/jama.2022.20954

Lawrence, B. J., Jayakody, D. M. P., Bennett, R. J., et al. (2020). Hearing loss and quality of life in older adults: A systematic review. *The Gerontologist, 60*(3), e137–e154. https://doi.org/10.1093/geront/gnz009

Lin, F., & Ferrucci, L. (2012). Hearing loss and falls among older adults in the United States. *Archives of Internal Medicine, 172*(4), 369–371. https://doi.org/10.1001/archinternmed.2011.728

Lupo, J. E., Biever, A., & Kelsall, D. C. (2020). Comprehensive hearing aid assessment in adults with bilateral severe-profound sensorineural hearing loss who present for cochlear implant evaluation. *American Journal of Otolaryngology–Head and Neck Medicine and Surgery, 41*(2). https://doi.org/10.1016/j.amjoto.2019.102300

National Institute on Aging. (2023). *Hearing loss: A common problem for older adults*. Retrieved October 24, 2025, from https://www.nia.nih.gov/health/hearing-and-hearing-loss/hearing-loss-common-problem-older-adults

National Institute on Deafness and Other Communication Disorders. (2023). *Age-related hearing loss (presbycusis)*. https://www.nidcd.nih.gov/health/age-related-hearing-loss

Saperstein, A., Meyler, S., & Medalia, A. (2023). Hearing loss among people with schizophrenia: Implications for clinical practice. *Schizophrenia Research, 257*, 1–4. https://doi.org/10.1176/appi.ps.20220226

Shukla, A., Harper, M., Pedersen, E., et al. (2020). Hearing loss, loneliness, and social isolation: A systematic review. *Otolaryngology–Head and Neck Surgery, 162*(5), 622–633.

Swords, C., Ghedia, R., Blanchford, H., Arwyn-Jones, J., Heward, E., Milinis, K., Hardman, J., Smith, M. E., Bance, M., Muzaffar, J., & INTEGRATE. (2024). Socioeconomic and ethnic disparities associated with access to cochlear implantation for severe-to-profound hearing loss: A multicentre observational study of UK adults. *PLoS Medicine, 21*(4), e1004296. https://doi.org/10.1371/journal.pmed.1004296

Tsai Do, B. S., Bush, M. L., Weinreich, H. M., Schwartz, S. R., Anne, S., Adunka, O. F., Bender, K., Bold, K. M., Brenner, M. J., Hashmi, A. Z., Keenan, T. A., Kim, A. H., Moore, D. J., Nieman, C. L., Palmer, C. V., Ross, E. J., Steenerson, K. K., Zhan, K. Y., Reyes, J., & Dhepyasuwan, N. (2024). Clinical practice guideline: Age-related hearing loss. *Otolaryngology–Head and Neck Surgery, 170*(S2), S1–S54. https://doi.org/10.1002/ohn.750

Wang, C., Xu, F., Chen, M., Chen, X., Li, C., Sun, X., Zhang, Y., Liao, H., Wu, Q., Chen, H., Li, S., Zhu, J., Lin, J., Ou, X., Zou, Z., Li, Y., Chen, R., Zheng, Z., & Wang, Y. (2022). Association of obstructive sleep apnea-hypopnea syndrome with hearing loss: A systematic review and meta-analysis. *Frontiers in Neurology, 13*, 1017982. https://doi.org/10.3389/fneur.2022.1017982

World Health Organization. (2025). *Deafness and hearing loss*. https://www.who.int/news-room/fact-sheets/detail/deafness-and-hearing-loss

Yeo, B. S. Y., Song, H. J. J. M. D., Toh, E. M. S., Ng, L. S., Ho, C. S. H., Ho, R., Merchant, R. A., Tan, B. K. J., & Loh, W. S. (2023). Association of hearing aids and cochlear implants with cognitive decline and dementia: A systematic review and meta-analysis. *JAMA Neurology, 80*(2), 134–141. https://doi.org/10.1001/jamaneurol.2022.4427

Yu, Y., Yang, Z., & Wang, L. (2024). Triglyceride to high-density lipoprotein cholesterol ratio and sensorineural hearing loss in community-dwelling adults: An NHANES analysis. *Yonsei Medical Journal, 65*(12), 741–751. https://doi.org/10.3349/ymj.2024.0142

Zeitler, D. M., Prentiss, S. M., Sydlowski, S. A., & Dunn, C. C. (2024). American Cochlear Implant Alliance Task Force: Recommendations for determining cochlear implant candidacy in adults. *Laryngoscope, 134*(S3), S1–S14. https://doi.org/10.1002/lary.30879

Zwolan, T. A., Schvartz-Leyzac, K. C., & Pleasant, T. (2020). Development of a 60/60 guideline for referring adults for a traditional cochlear implant candidacy evaluation. *Otology & Neurotology, 41*(7), 895–900. https://doi.org/10.1097/MAO.0000000000002664

Additional Information

Presenter Bio

Kevin Zhan, MD

Dr. Kevin Zhan is an Assistant Professor of Otolaryngology and Director of the Cochlear Implant Program at Northwestern Medicine. Dr. Zhan specializes in the medical and surgical management of hearing loss, cochlear implantation, and disorders of the ear. He served on the American Academy of Otolaryngology–Head and Neck Surgery Foundation (AAO-HNSF) Guideline Development Group for the 2024 Clinical Practice Guideline: Age-Related Hearing Loss.

Terry Zwolan, PhD, CCC-A

Terry Zwolan, PhD, is the Senior Director, Medical Affairs at Cochlear Americas. She is Professor Emerita in the Department of Otolaryngology – Head and Neck Surgery at Michigan Medicine, where she served as Director of the Cochlear Implant Program from 1990-2021. She is a co-founder of the American Cochlear Implant Alliance and served on its initial Board of Directors. She served as Director for two courses for the Institute for Cochlear Implant Training (ICIT) and served as an adjunct faculty member for Wayne State University's AuD Program. She has authored/co-authored numerous articles and chapters related to adult and pediatric cochlear implants.

Kristen Caron, AuD

Kristen Caron, AuD, is the Manager of Clinical Marketing Strategy for Cochlear North America. She brings experience spanning clinical practice, patient care, provider engagement, and business development. She works closely with clinical, medical affairs, and marketing teams to translate scientific evidence into practical applications for hearing healthcare professionals.

Presenter Disclosure

- Financial: Terry Zwolan is employed by Cochlear. Non-financial: Terry Zwolan has no relevant non-financial relationships to disclose.
- Financial: Dr. Kevin Zhan is a consultant for Cochlear North America.
- Financial: Kristen Caron is employed by Cochlear. Non-financial: Kristen Caron has no relevant non-financial relationships to disclose.

Additional Information (continued)

Handout Information

About This Document
This document is created for accessibility and is an AI-generated supplement synthesized directly from the presentation's PowerPoint content.

Reference Use & Links
This handout is for reference only. Non-essential images have been removed. Any links are current at the time of the live webinar but are subject to change.

Copyright
Images used in this course comply with copyright laws; permission has been secured where required. All use of these images outside this course may violate copyright laws and is strictly prohibited.

Social Workers
For additional information regarding standards and indicators for cultural competence, please review the NASW resource: Standards and Indicators for Cultural Competence in Social Work Practice

Need Help?
Select the "Help" option in the member dashboard to access FAQs or contact us.

Limitations/Risks

- The applicability and accuracy of the course content may vary by the clinical, geographical, and cultural context; you should evaluate the course accordingly.
- As healthcare is rapidly evolving, new findings may change the validity of the information presented in this course. Providers should always consult the latest research and guidelines from professional associations.
- The interventions discussed in this course may be limited in generalizability, requiring practitioners to consider specific individual and population factors.
- The course may not cover all possible risk factors, diagnostic methods, or treatment options, and complex cases may require additional considerations.
- Healthcare providers should apply cultural competence and sensitivity to ensure effective and respectful care based on their patients' diverse needs.
- Providers should always evaluate the limitations of diagnostic and screening tools, considering their potential for false results as well as any ethical implications.
- It is the responsibility of course participants to critically evaluate the evidence from multiple sources to guide professional practice.

No part of the materials available through the continued.com site may be copied, photocopied, reproduced, translated or reduced to any electronic medium or machine-readable form, in whole or in part, without prior written consent of continued.com, LLC. Any other reproduction in any form without such written permission is prohibited. All materials contained on this site are protected by United States copyright law and may not be reproduced, distributed, transmitted, displayed, published or broadcast without the prior written permission of continued.com, LLC. Users must not access or use for any commercial purposes any part of the site or any services or materials available through the site.