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Adult Assessments in Hearing Healthcare: Working Across the Continuum, in partnership with American Cochlear Implant Alliance

Camille Dunn, PhD and Susan Good, AuD, MBA

Moderator: Donna Sorkin, MA, Executive Director, American Cochlear Implant Alliance

Five Part Series on Adult Assessments in Hearing Healthcare

- Adult Assessments: Working Across the Continuum
- Roles of Audiologists and Dispensers Working with Hearing Aid Users on CI Candidacy
- Utility of the New CI Quality of Life Instruments to Personalize and Improve CI Care
- Adult Perceptions of Hearing Status and Options: Professionals Facilitating a Life-Long Hearing Journey
- Optimizing Outcomes in Hearing Technology: Hearing Aids and Implantable Devices

Why another organization in hearing health?

- Membership organization focused on cochlear implantation and access to care
- Members are audiologists, physicians, speech pathologists, educators and others on CI teams + consumers/parents, advocates, hearing aid specialists
- Website designed for those in and out of CI
- Highly collaborative with other organizations

Welcome your involvement!

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AMERICAN COCHLEAR IMPLANT ALLIANCE

Research. Advocacy. Awareness.

American Cochlear Implant Alliance

- Mission: Advance access to the gift of hearing provided by cochlear implantation through research, advocacy and awareness
- Address factors contributing to underutilization of cochlear implants
- Improve awareness regarding candidacy and outcomes

CONTINUED

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+ABOUT

Camille Dunn, PhD, an Associate Professor and Director of the Cochlear Implant Program in the Department of Otolaryngology at the University of Iowa, received her Master of Science and Doctor of Philosophy Degrees from the University of Nebraska-Lincoln. She holds her Audiology license from the State of Iowa and maintains her Certificate of Clinical Competence in Audiology. She is a member of the American Speech-Language-Hearing Association (ASHA) and a Board member on the American Cochlear Implant Alliance. She is a Principal Investigator on a NIH- funded grant to determine the impact of intervention on hearing-related functions and disability in natural environments.

Susan Good, AuD, MBA, has more than 20 years' experience in the hearing industry, having worked as both a business executive and clinical audiologist. She is an expert in business development and clinical operations for audiology & physician-based practices. She is the co-founder of the Network of Medical Audiology Professionals, a community for all providers that work in and around ENT. Susan received her Master's in Business Administration from Pennsylvania State University and her Doctoral degree from the University of Florida.

Disclosures

- **Presenter Disclosure**:
  - Financial: Camille Dunn is on the advisory board for MED-EL Corporation, iotaMotion, and Envoy Medical. She is a consultant for Cochlear Corporation and iotaMotion. She serves as a faculty member at the Institute for Cochlear Implant Training. She has received grant funding from MED-EL and she received an honorarium for this presentation. Non-financial: Camille Dunn serves as an ACI Alliance Board Member.
  - Financial: Susan Good received an honorarium for this course. Non-financial: Susan Good has no relevant non-financial relationships to disclose.
- **Content Disclosure**: This learning event does not focus exclusively on any specific product or service.
- **Sponsor Disclosure**: This course is presented by AudiologyOnline in partnership with the American Cochlear Implant Alliance.

Learning Outcomes

After this course, participants will be able to:

- Discuss **common challenges** providers face when caring for older adults with hearing loss and summarize **changes that can occur to a patient's hearing** as they age.
- List the **different providers that may be involved** through the diagnosis and treatment of hearing loss.
- Explain different ways a provider can **incorporate cochlear implants as a treatment option** for patients with hearing loss.

Session Description

- As the prevalence of hearing loss increases, so does the complexity of the treatment path that patients with hearing loss experience.
- We all have the responsibility to make sure that the patients who can benefit from cochlear implants have access to them.
- Whether you're screening a patient for a hearing aid, recommending a cochlear implant evaluation, or activating the device, we all have a role to play in the continuum of care for managing hearing loss.

Agenda

Hearing Loss Healthcare & Aging

Multi-disciplinary Approach to Diagnosis & Treatment

Incorporating CI into Your Diagnostic & Treatment Process

Different Approaches to Incorporating Cochlear Implants into Counseling

The Basics | Statistics on HL

- An estimated **466 million** persons worldwide live with disabling hearing loss (> 6.1% of the world's population).

United States:

- Over **40 million people suffer** from disabling hearing loss (4.6%)
- *About 2 to 3 out of every 1,000 children in the United States are born with a detectable level of hearing loss in one or both ears.*

Gorman, 2016
WHO, 2023

The Basics | Statistics on HL

- Most of us will gradually lose some of our hearing as we get older. In the U.S., about **a third of people ages 65 to 74** have hearing loss. Almost **half of people over age 75** have some trouble hearing.
- Most of the time, hearing loss with age is **bilateral**. Most often those changes are in the *inner ear*. Sometimes changes in the auditory nerve and brain may be involved.

Gorman, 2016
WHO, 2023
Li-Korotky , 2012

Rehabilitation | HA

Although increasingly associated with significant health and socioeconomic ramifications, hearing loss remains one of the most undertreated disabilities in the United States.

- Among adults aged 70 and older with hearing loss who could benefit from hearing aids, fewer than **one in three** has ever used them.
- Even fewer adults aged 20 to 69 who could benefit from wearing hearing aids have ever used them, only **16%**.

NIH, 2021

Rehabilitation | CI

- With the first multi-channel CI system in 1985, guidelines requiring **bilateral severe-to-profound SNHL** to qualify for CI became the standard of care.
- However, as of 2015, **only a cumulative 170,252 adults in the US have been implanted** out of an estimated ~1.3 million traditional audiometric CI candidates.
- Roughly ~10% of patients who could benefit from a cochlear implant actually receive one.

What about the new guidelines?

Nassiri et al., 2022
NIDCD, 2021

How are we missing the mark?

- Persistent underutilization of hearing aids and cochlear implants in the United States is in part a reflection of a **lack of hearing health knowledge** by the consumer, **lack of understanding of comorbidity implications** related to hearing from the medical community and the **complexities of care delivery** in the treatment of sensorineural hearing loss.

Lack of Hearing Healthcare Knowledge

From the Patient Perspective

Here are some key points to consider:

1. Early warning signs
2. Ignoring the issue
3. Misconceptions | Cost & Effectiveness
4. Lack of information
5. Communication challenges
6. Chronic Disease & Comorbidities

Education about comorbidities

From the Medical Community Perspective

CDC, 2022

Education about comorbidities

From the Medical Community Perspective

- Alcohol Abuse
- Alzheimer's Disease & related Dementia
- Arthritis (Osteoarthritis & Rheumatoid)
- Asthma
- Atrial Fibrillation
- Autism Spectrum Disorders
- Cancer (Breast, Colorectal, Lung & Prostate)
- Chronic Kidney Disease
- Chronic Pulmonary Disease
- Depression
- Diabetes
- Drug Abuse / Substance Abuse
- Heart Failure
- Hepatitis (Chronic Viral B & C)
- HIV/AIDS
- Hyperlipidemia (High Cholesterol)
- Hypertension (High Blood Pressure)
- Ischemic Heart Disease
- Osteoporosis
- Schizophrenia & Other Psychotic Disorders
- Stroke

CMS, 2021

Education about comorbidities

From the Medical Community Perspective

CMS support often drives recognition & focus within the medical community when it comes to disease and comorbid implications.

Even though many studies are being published about the associations of chronic disease & hearing loss, **we have a lot of catching up to do** with educating medical community about the implications surrounding the chronic disease and the comorbidity of hearing loss.

Education about comorbidities

From the Medical Community Perspective

Only in the past decade have we begun to see studies **linking hearing loss to disabling and often chronic conditions.**

Hearing loss is the third most common chronic physical condition behind arthritis and heart disease, affecting people of all ages.

Education about comorbidities

From the Medical Community Perspective

Taking it a step further, hearing rehabilitation positively impacts these patients in more ways than simply improving their hearing.

Hearing rehabilitation helps mitigate depressive symptoms, reduces social isolation, most recently investigations are reporting the modifying impact on cognitive impairment including dementia.

Complexity of Care Delivery

From the Hearing Care Provider Perspective

- Stigma and Reluctance to Seek Help
- Comorbidities
- Communication Difficulties & Technology Challenges
- Limited awareness and understanding of hearing loss
- Limited training and resources
- Accessibility & Affordability Barriers

Who is on the team?

- A multidisciplinary approach to the **diagnosis and treatment of hearing loss involves the collaboration of various healthcare professionals** from different specialties.
- This **approach ensures patients receive comprehensive care** that addresses their hearing loss and underlying conditions that may be contributing to their loss.

Who **could be involved** in the journey and should be aware of associated risks of hearing loss?

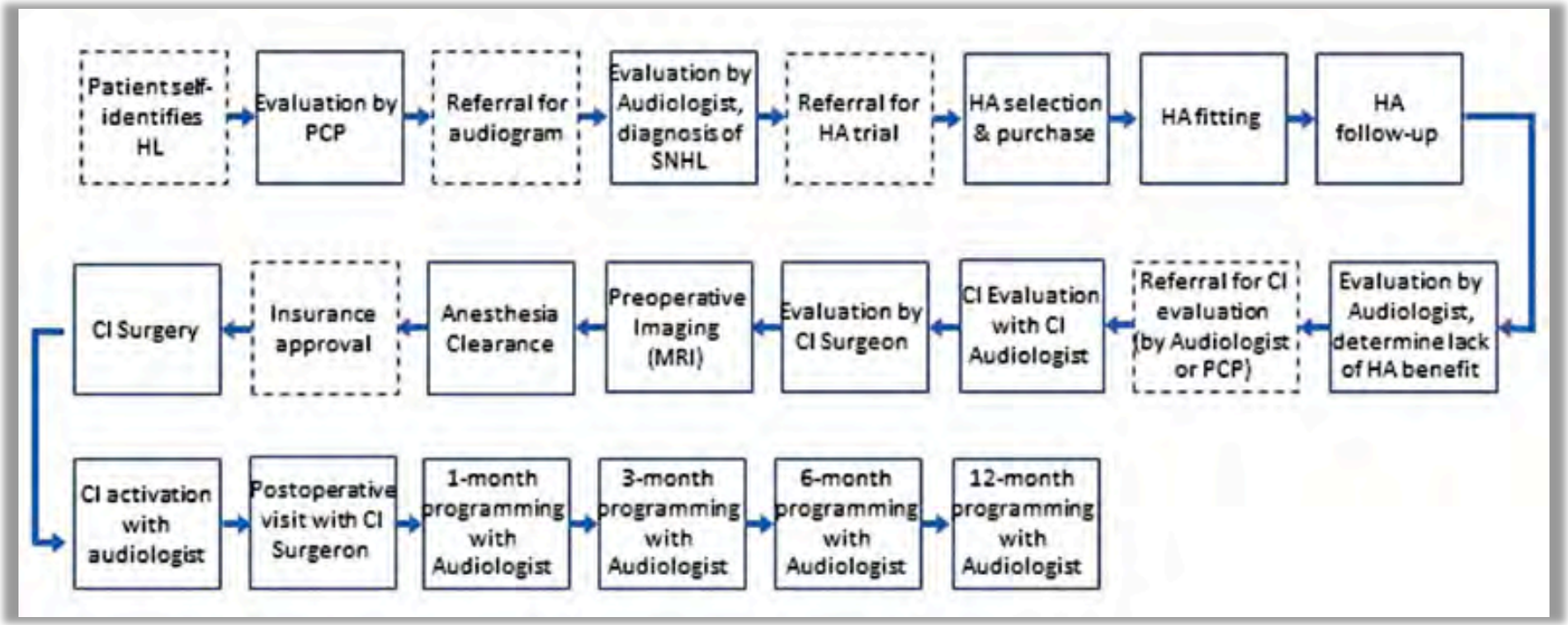
- Audiologists
- Otolaryngologists
- Radiologists
- Speech-Language Pathologists
- Psychologists or Psychiatrists
- Genetic Counselors
- Occupational Therapists
- Primary Care Physicians
- Neurologists
- Pharmacists
- Social Workers
- Educators
- Hearing Instrument Dispensers
- Vocational Rehabilitation Counselors
- Internal Medicine
- Endocrinologists
- Cardiologists
- Rheumatologists
- Pulmonologists
- Geriatricians
- Physician Assistants
- Nurse Practitioners

Who is often involved in the adult hearing rehabilitative journey?

- Audiologists (involved)
- Otolaryngologists (involved)
- Radiologists (involved)
- Speech-Language Pathologists (involved)
- Psychologists or Psychiatrists (involved)
- Genetic Counselors (involved)
- Occupational Therapists
- Primary Care Physicians
- Neurologists
- Pharmacists
- Social Workers
- Educators
- Hearing Instrument Dispensers
- Vocational Rehabilitation Counselors
- Internal Medicine
- Endocrinologists
- Cardiologists
- Rheumatologists
- Pulmonologists
- Geriatricians
- Physician Assistants
- Nurse Practitioners

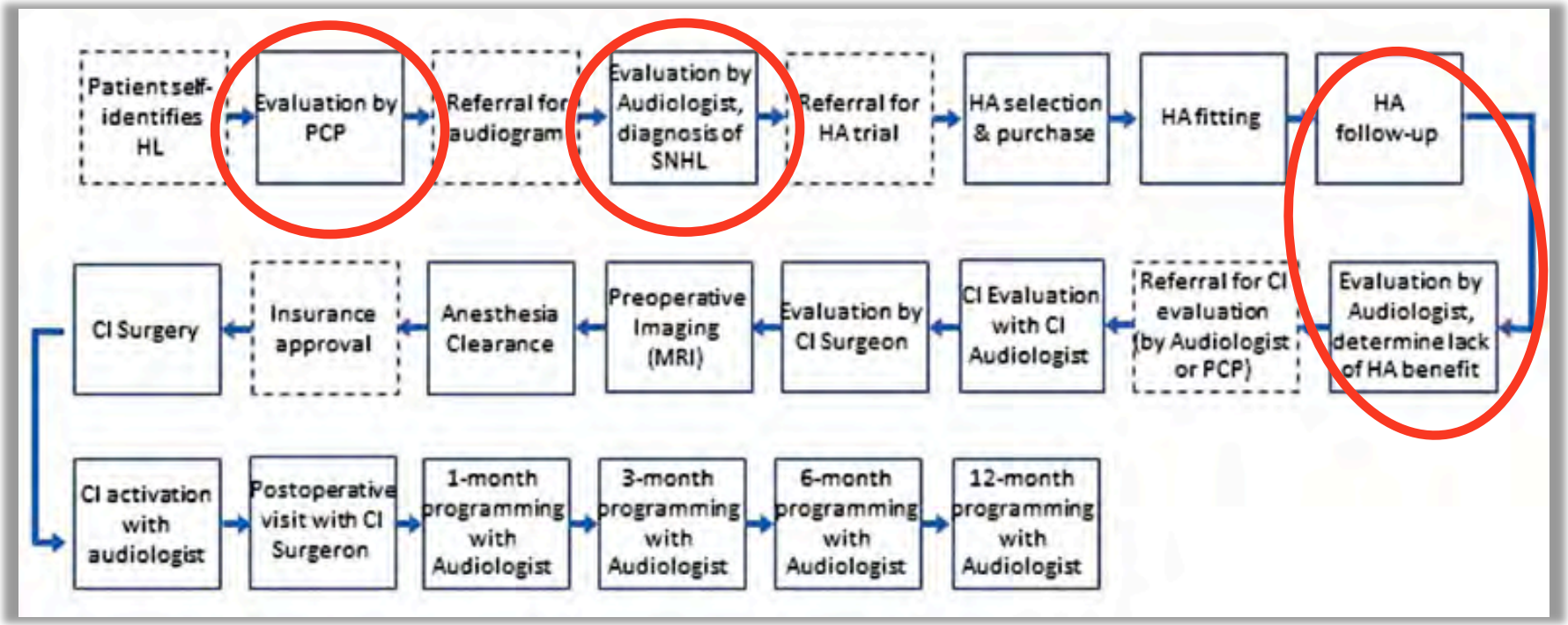
Traditional approach rehabilitation

Hearing Aids and Cochlear Implant



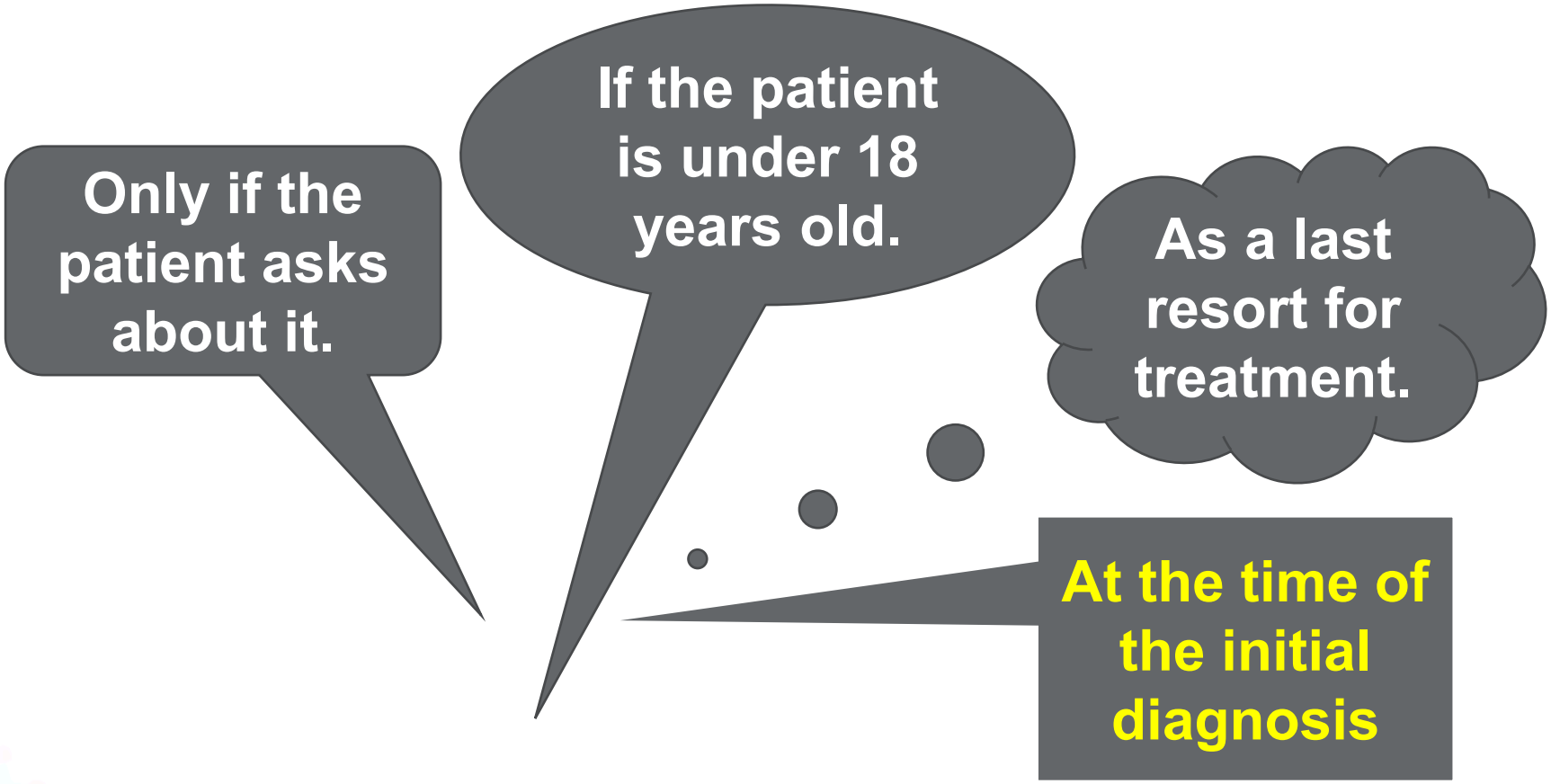
Nassiri et al, 2021

When should the narrative of CI get mentioned a patient?

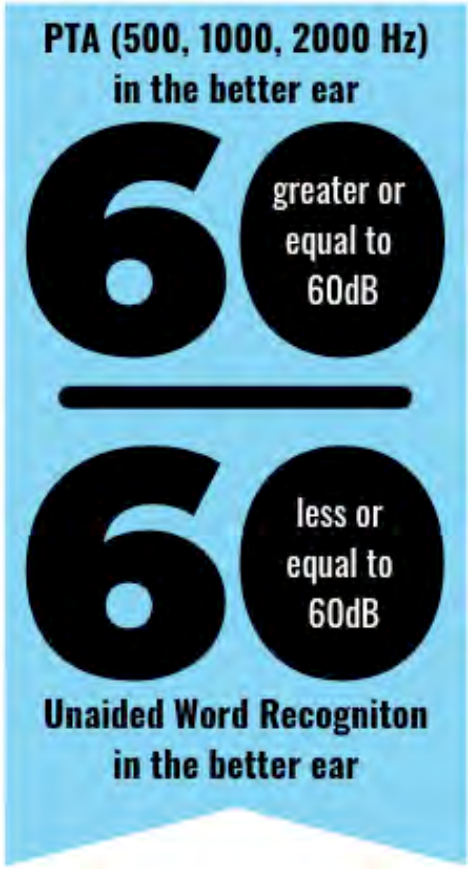


Nassiri et al, 2021

When should CI be introduced into the patient counseling process?



How do I know if a patient is a candidate?



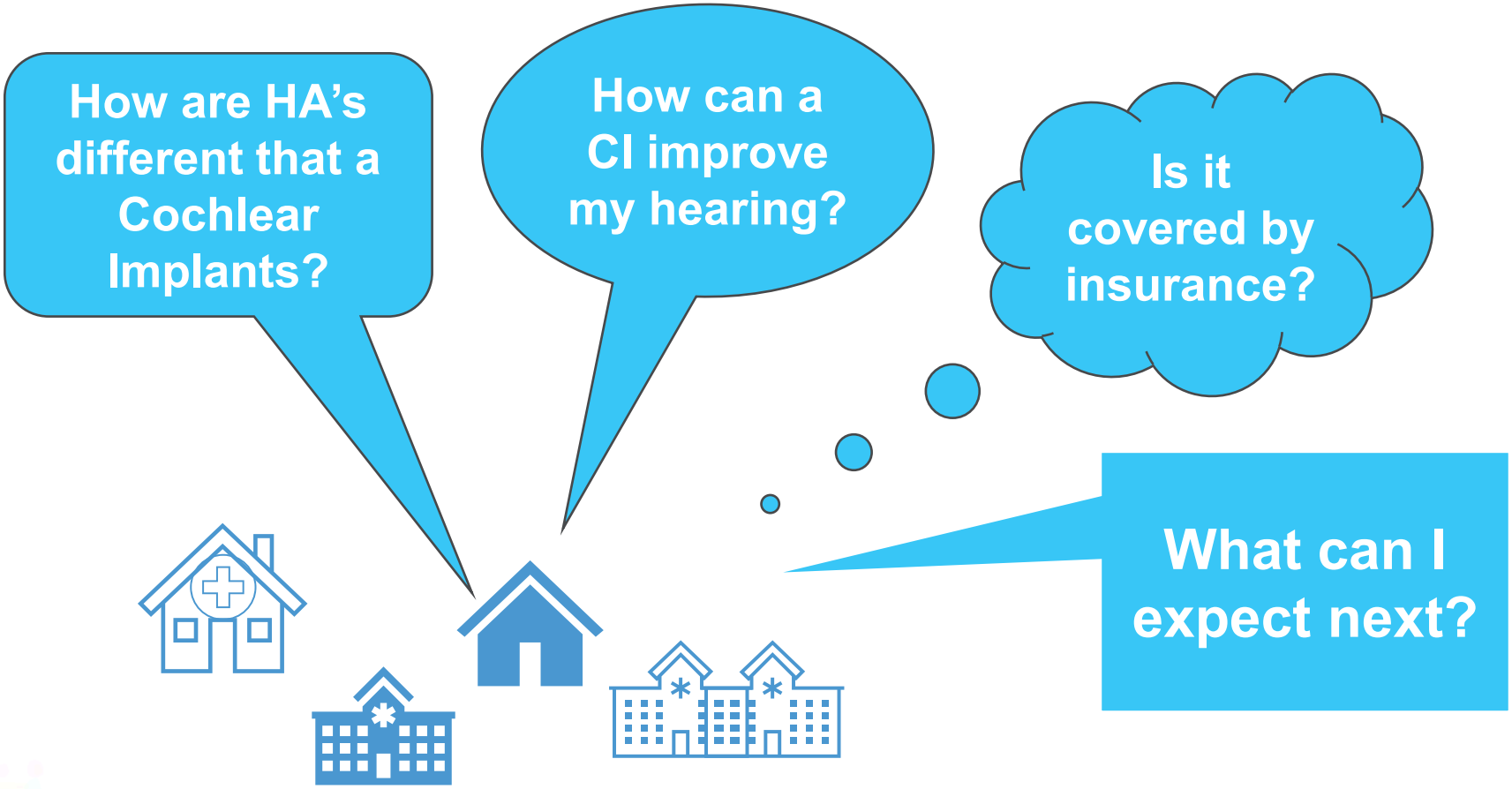
- What is it?
- Why was it created?
- When should I use it?
  - Which recommends patients undergo a CI candidacy evaluation if they have an
    - unaided PTA greater or equal to 60 dBHL and/or
    - unaided word score greater or equal to 60% in their better ear.
- How will it continue to be improved?

Zwolan et al, 2020

When should a patient be referred for a Cochlear Implant Evaluation?

- Many findings from the patient history, diagnostic screenings and documented treatment outcomes may trigger the discussion for referral to a surgeon or implant center for evaluation.
- Ultimately, **when a patient has moderate to profound hearing loss in at least one ear & the provider feels CI may be a more successful option**, its time to refer to determine if a CI is an option for the next step in treatment for the patient's hearing loss.

How to approach counseling & patient questions in different clinical settings?



How can a provider integrate CI into their counseling?

- How do I **learn more myself**?
- What can I say to the patient **early in the process** about CI as a possible option down the road?
- What should I be saying to a patient about my **referral to CI Center** for assessment?
- Can I still **support my patient** with their other hearing aid?
- Are there **counseling materials** I should have in my office for patients?

Thank You

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Questions

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