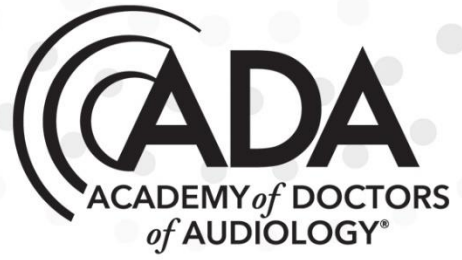


# AUDACITY

Bolder than Ever

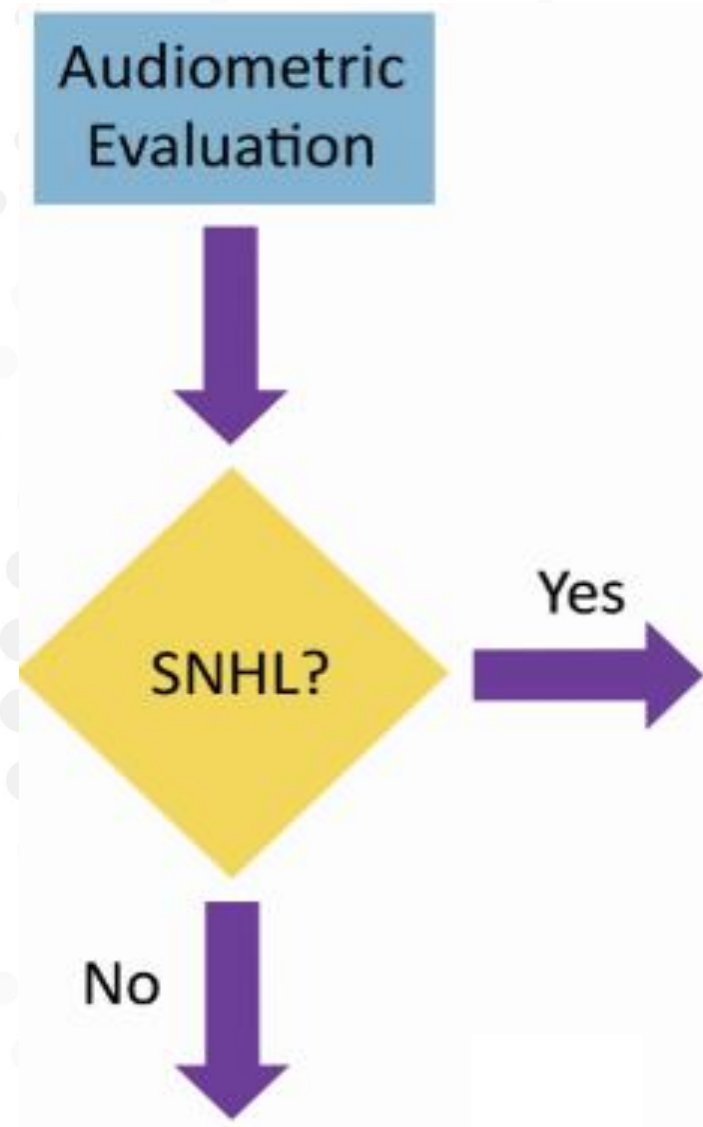


# A HOLISTIC APPROACH TO MANAGE HEARING LOSS AND ITS COMORBIDITIES



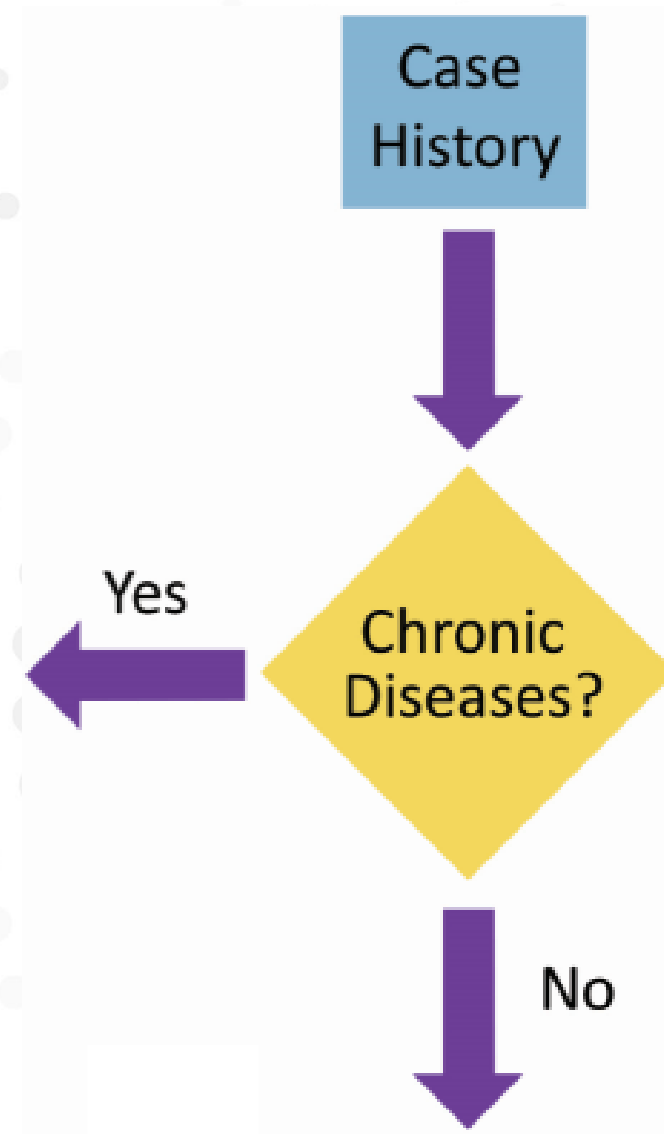
# Audiometric Evaluation

- **The first step** is to conduct an audiological evaluation following best practices protocols.
- Determination should be made as to whether or not hearing loss is present.
- Do the test results indicate sensorineural impairment?



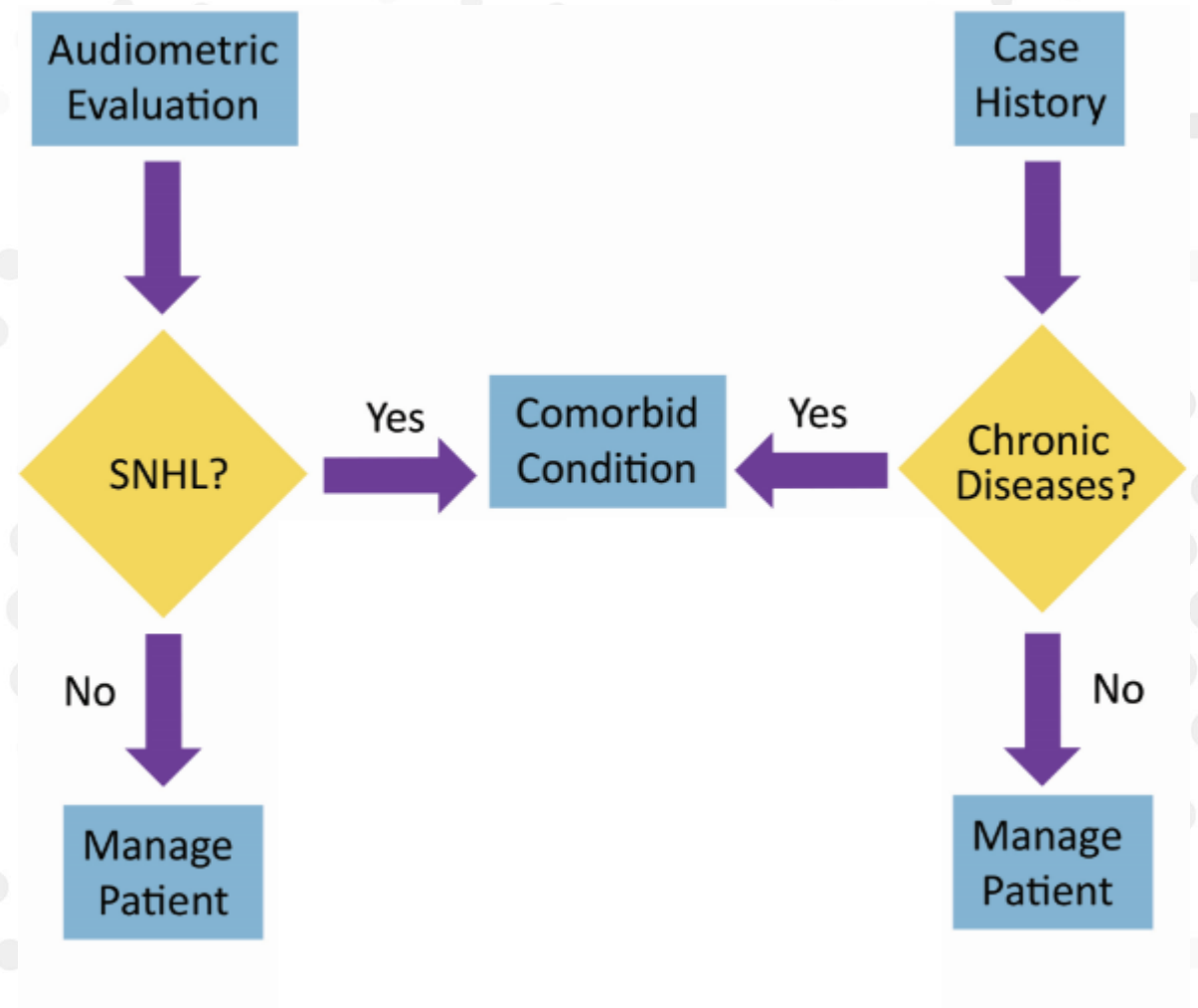
# Case History

- **The second step** in the process is to review the case history for presence of chronic conditions.
- The CDC list includes 14 chronic diseases that we have discussed throughout the day.
- A method of identification of these illnesses should be included in the case history.



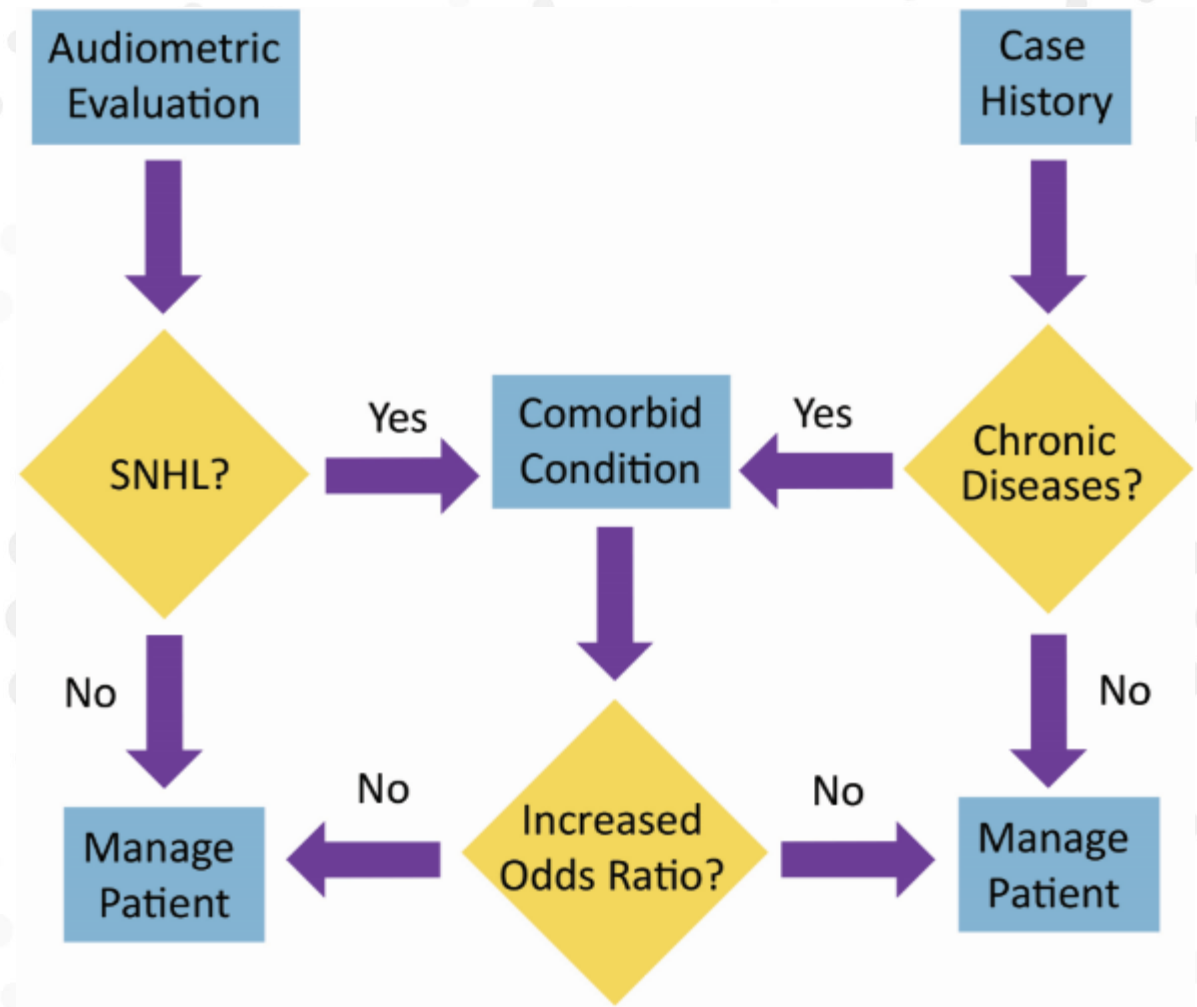
# Comorbid Condition?

- **The third step** is determination if SNHL and another chronic condition are present.
- If so, comorbidity is present in the patient.
- Comorbidity is associated with:
  - worse health outcomes,
  - complex clinical management,
  - increased health care costs.



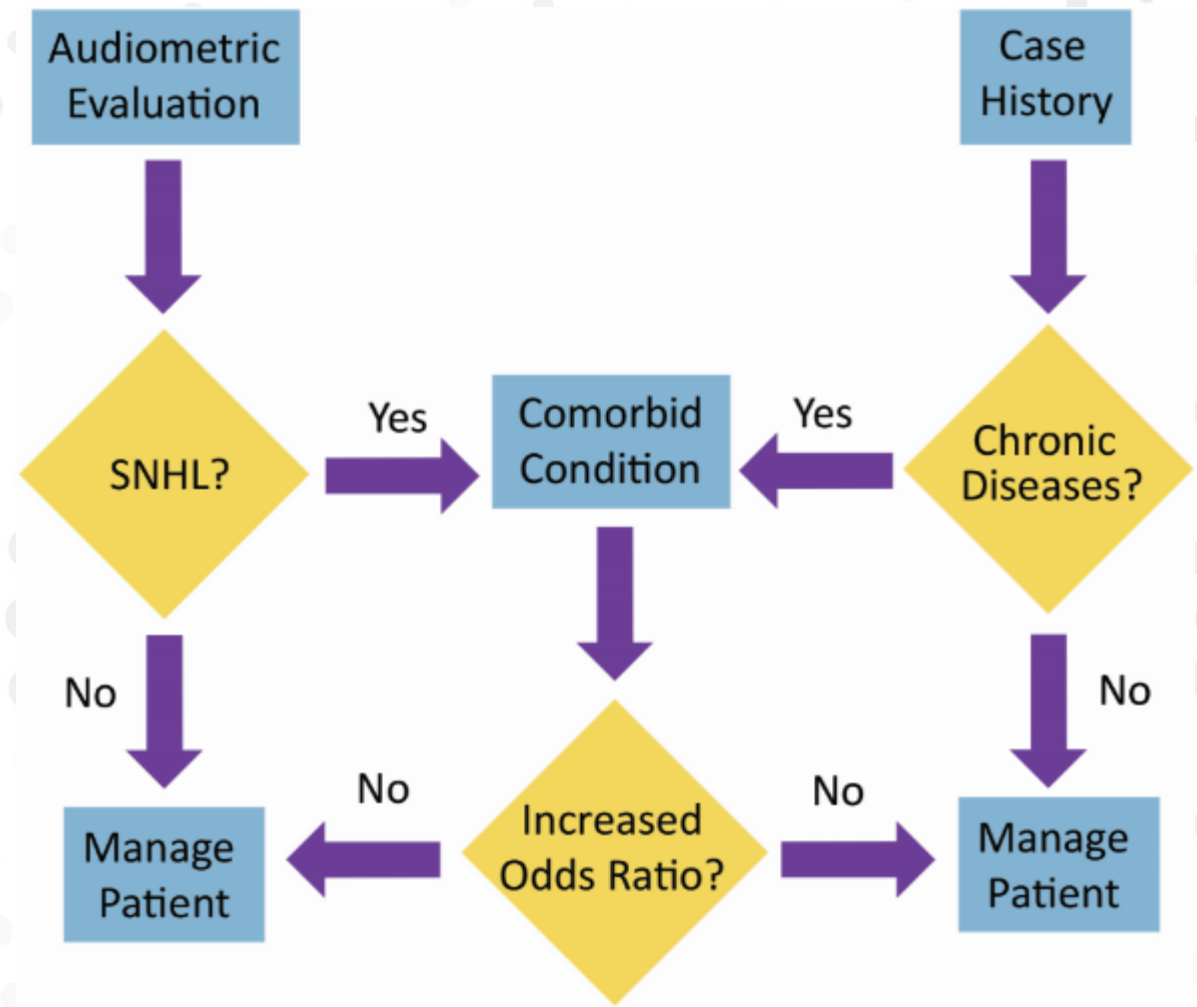
# Increased Odds Ratio?

- **The fourth step** is to determine if there are increased odds ratio of the chronic disease (from the case history) and SNHL.
- With regard to SNHL, elevated ORs have been found for:
  - vascular diseases, heart disease, high blood pressure, stroke, kidney disease;
  - neurological disorders, Alzheimer's disease, dementia;
  - metabolic syndrome of diabetes.



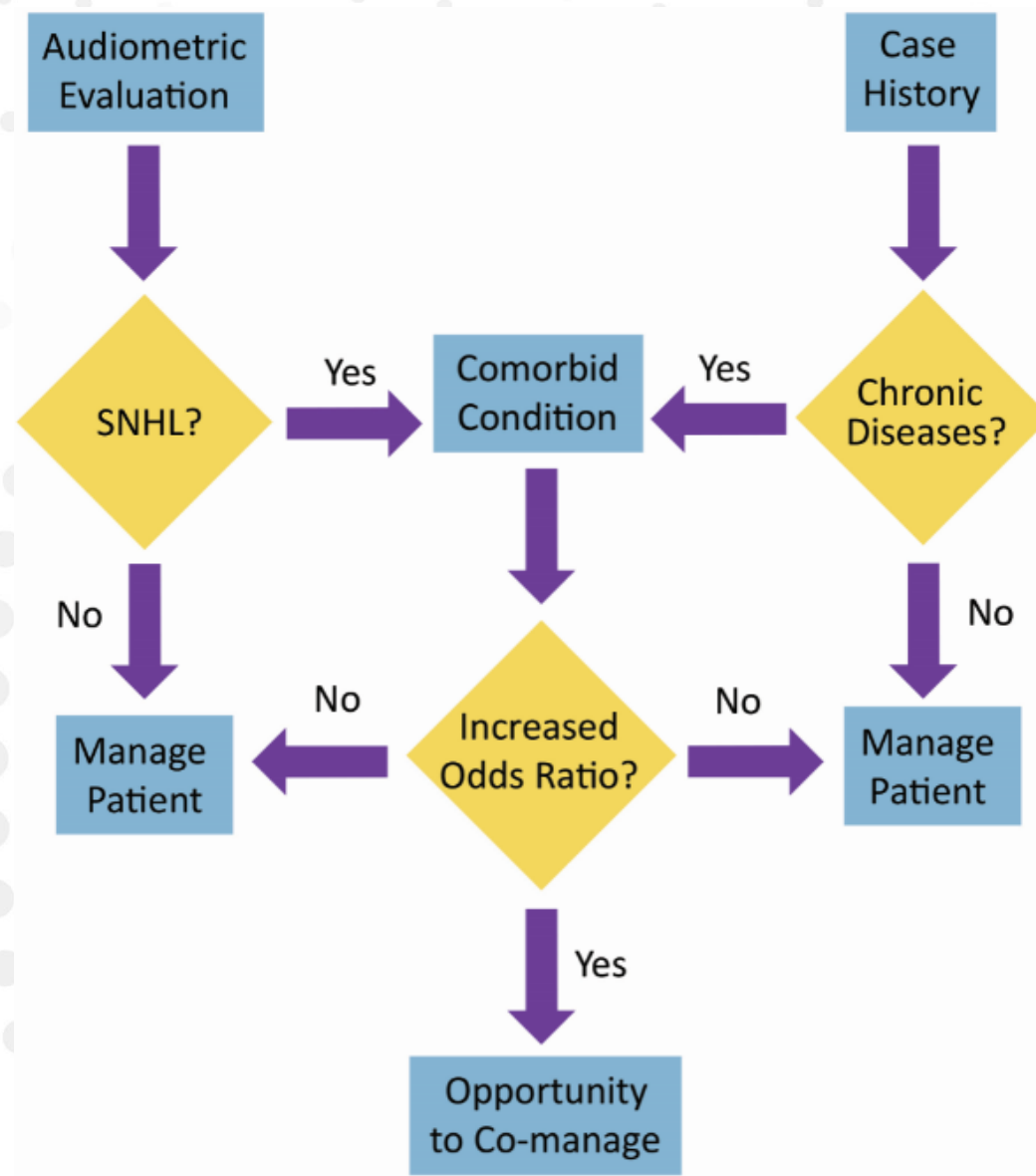
# Manage Patient

- The detection of cochlear loss is critical.
- The inner ear is susceptible to the pathophysiology associated with many chronic diseases.
- The inner ear is highly vulnerable to vascular disease and ischemia.
- The inner ear has fragile structures with high metabolic demand.
- The inner ear is sensitive to functional degradation resulting from hypoxia, toxicity and vessel disease.



# Opportunity to Co-manage

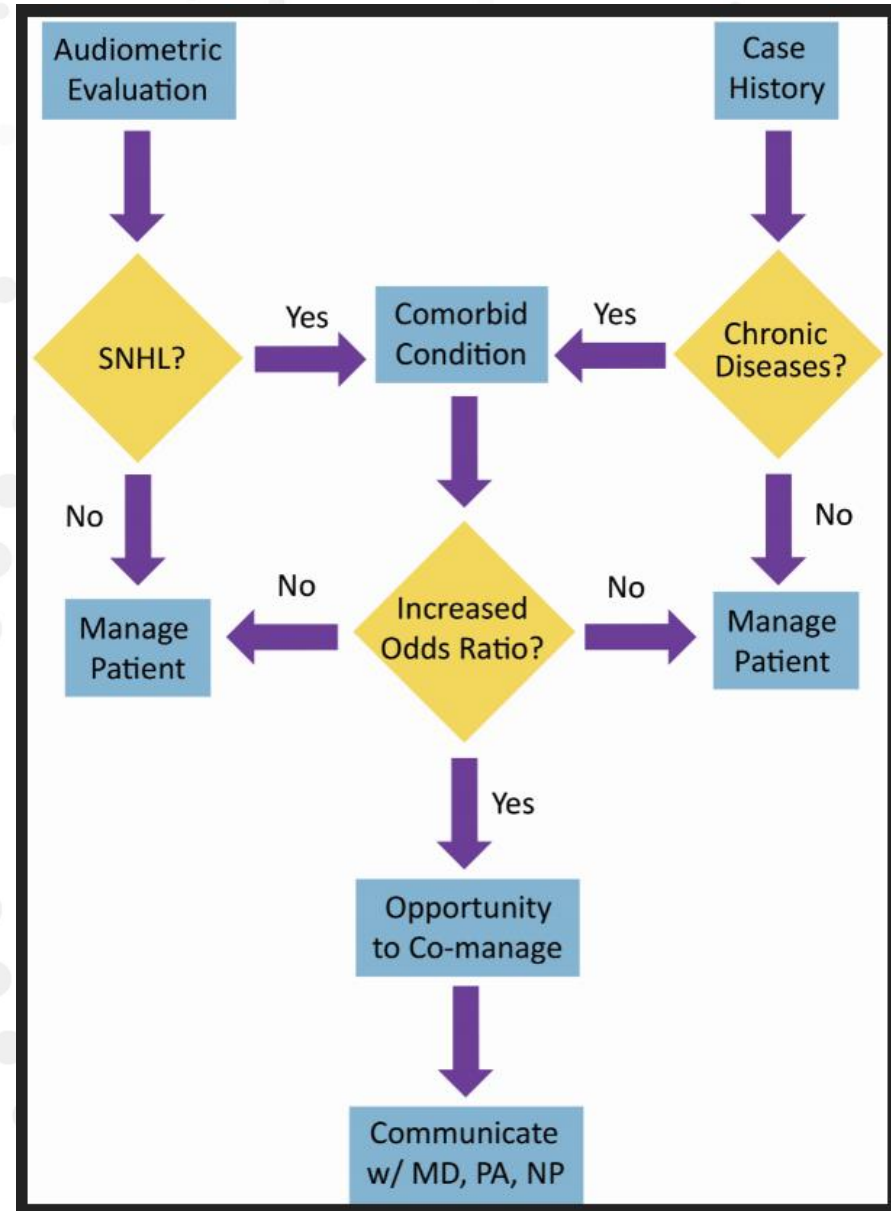
- **The fifth step** of the plan.
- The audiologist must conduct a self-evaluation towards co-management of the patient's comorbid conditions.
- The audiologist must answer the questions:
  - “Do I want become involved with other healthcare providers ?
  - Do I want to work towards the goal of improved patient outcomes?”





# Communicate with MD, PA, or NP

- **Initiate step six**, communications toward team management of the comorbid, chronic conditions.
- Typically these communications will be with the patient's primary care provider (MD, PA, or NP).



# Unique Value of Audiologists

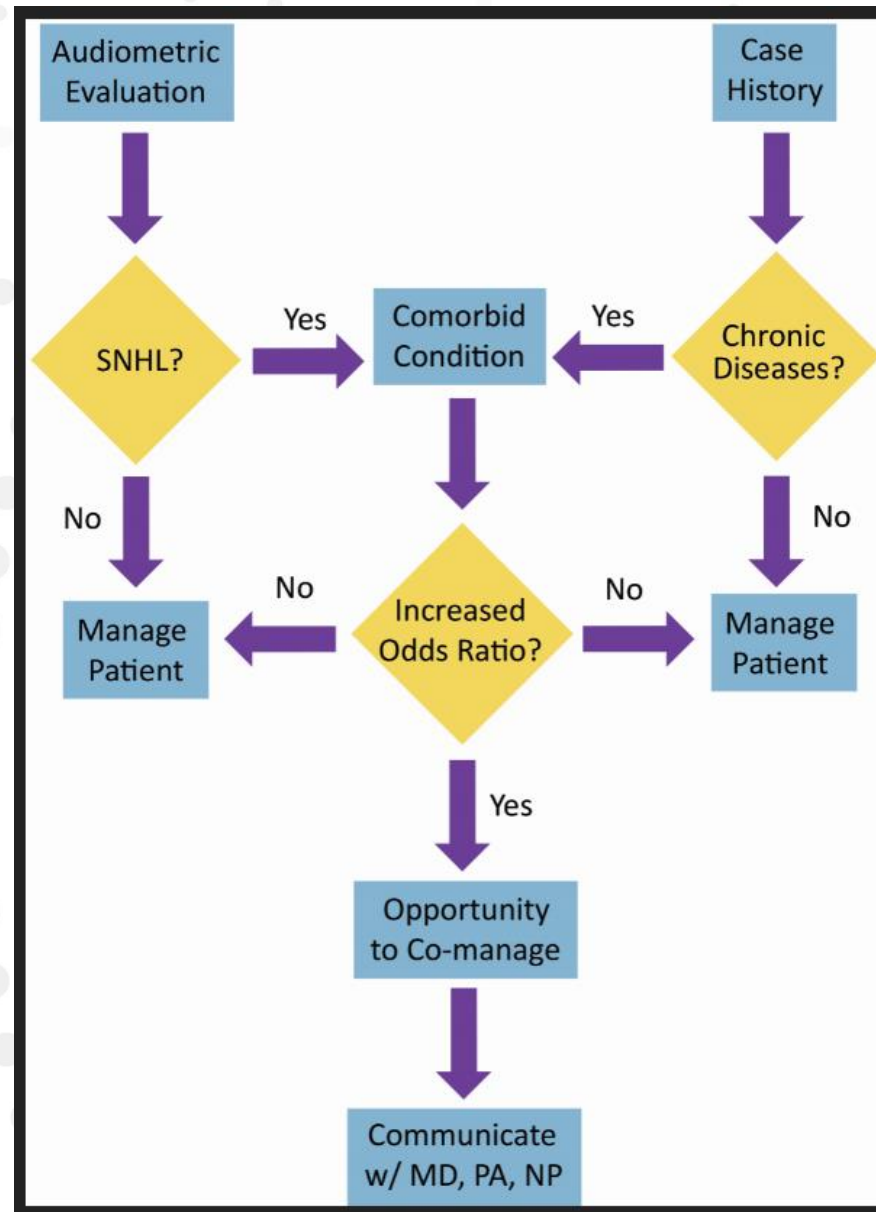
- **First**, the audiologist can comprehensively assess inner ear function.
- **Second**, audiologists provide treatment to ameliorate the effects of SNHL.
- **Third**, audiologists inform other healthcare professionals of the presence of hearing disorders and appropriate expectations regarding patient communications.

## What is Unique Value?



# Summary Comments

- The audiologist must:
  - be aware of whole-body health,
  - understand interactions between chronic diseases and SNHL,
  - be prepared to contribute in new ways in inter-professional practice,
- Remember that the path to our preferred future includes:
  - comprehensive evaluation,
  - case history chronic conditions,
  - comorbid SNHL,
  - increased odds ratio.



# Managing Comorbidities Symposium

*Victor Bray, PhD*

*Richard Gans, PhD*

*Carol Knightly, AuD*

*Michelle McElhannon, PharmD*

*Nicholas Reed, AuD*

*Christopher Spankovich, AuD, PhD, MPH*

*David Zapala, PhD*