

### Background and Purpose of the Study

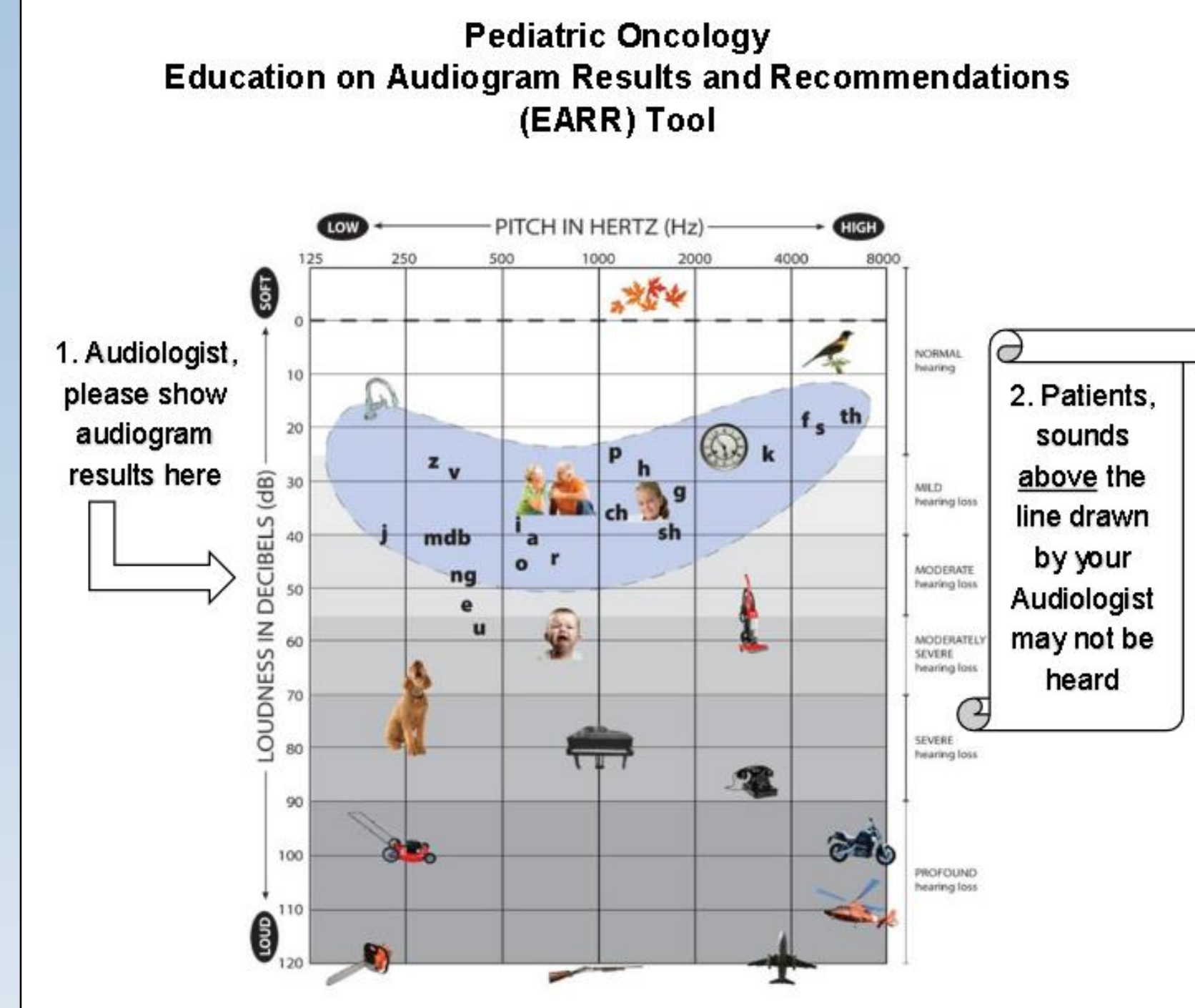
- We developed the Pediatric Oncology Education on Audiogram Results and Recommendations (EARR) Tool to increase knowledge of ototoxicity through early, consistent communication in those at risk for ototoxic hearing.
- It uses a simple sounds audiogram and question prompt list approach to communicate audiogram results, hearing device recommendations, and possibility of future hearing loss.
- The primary objective of this study was to refine the EARR Tool to be acceptable and feasible to 1) audiologists (Aud), 2) oncology providers (Onc), and 3) parents (Par) of pediatric oncology patients exposed to ototoxic therapy.

### Methods

- DATA COLLECTION:** Four 1-2 hour focus groups
  - Group 1: Aud who worked with children exposed to ototoxic therapy in the last 6 months (n=5)
  - Group 2: Onc (MD, RN, APN) currently working with children with cancer exposed to ototoxic therapy (n=5)
  - Groups 3 & 4: Par of children exposed to ototoxic therapy
    - “on” therapy (n=3) and “off” therapy (n=4)
- ANALYSIS:** thematic analysis assessing for trends of acceptability and feasibility, including opinions of agreement and ideas of divergence.



### Initial Version of the EARR Tool



3. Audiologists, circle all that apply:

Hearing Loss?	None Normal hearing		Slight Mild Moderate		Mod-Severe Severe Profound
Is this hearing loss likely related to cancer treatment or something else?	No loss	Chemotherapy	Something else		Unsure
Could a hearing device help with this hearing loss?	No Loss	Yes	No		Maybe

Questions Parents may want to ask their Audiologist

- Based on the audiogram results today, what sounds might be difficult to hear?
- How could my child be impacted with this type of hearing in everyday life?
- Can you tell me more about hearing devices that could help with hearing loss, if applicable?

4. Oncology Team, circle all that apply:

Considering my current cancer treatment, is this a good time to get a device to help with hearing?	No loss	Yes	No	Unsure
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Questions Parents may want to ask their Oncology team:

- If my child is still receiving cancer treatment, will treatment change due to hearing loss?
- Is my child still getting cancer treatment that can result in hearing loss?
- How long after cancer treatment should we wait to get fitted for a device to help with hearing, if needed?

### Findings

Table 1. Common Positive Points & Points of Improvement Among all Groups

Themes	Positive Points	Points of Improvement
Functionality	Enhances communication between family, healthcare teams, & school	
	Communicates hearing loss early & consistently throughout treatment	
	Communicates audiogram results in family-friendly language	
	Encourages families to advocate & ask questions	
Implementation		Paper & electronic formats
Content	Content makes sense & is unique to oncology population	Add content/questions
		Provide more clarity/context

Table 2. Other Positive Points Mentioned by Each Group

Themes	Positive Points	Aud	Onc	Par
Functionality	Helpful to track changes over time		X	X
Layout	Appreciate simple format	X		X
Content	Instructions on simple sounds audiogram section are helpful	X		
Comfort with Tool	Liked having categories of ‘unsure’ and ‘maybe’ to answer	X		
	Familiar with using simple sounds audiogram	X		
	Not overwhelming			X
Implementation	Complements counseling sessions	X		

Table 3. Other Points of Improvement Mentioned by Each Group

Themes	Points of Improvement	Aud	Onc	Par
Functionality	Enhance simple sounds audiogram section	X		X
Layout	Move questions to another section of the tool	X		
	Rearrange order of questions – one builds off another			X
	Modify aesthetics			X
Content	Add more instructions to simple sounds audiogram section		X	X
Comfort with Tool	Need more context to answer questions		X	
Implementation	Ensure it is built into routine workflow	X		X
	Consider having in other languages		X	X