Let’s Meet Outside the Box
Collaborative efforts for optimizing technology

Jolie C. Fainberg, M.A.
Atlanta Institute for ENT
Sylvia Rotfleisch, M.Sc.
Hear2Talk
Disclosure

None
Introduction

Many of the children we work with are using sophisticated hearing aids and/or cochlear implants. Though it seems that all the pieces are there, we can’t put the puzzle together and the child isn’t making the progress we expect.
Understanding Missing Puzzle Pieces

✓ Auditory skills and difficulties provide critical information.

✓ Allows the audiologist to
  o Optimize the technology settings
  o Address the child’s individual needs

✓ This enhances the potential for success as a listening and spoken language user.
Collaboration between the two professionals

Interdisciplinary teamwork: it takes a village to help a child become a listening and spoken language success story.
We work together with the family to make adjustments, obtain assessments and provide for the individual needs of each child.
Collaboration between the two professionals

✓ Neither the AV Therapist or audiologist can do their job without each other.
✓ Technology and therapy go hand in hand.
✓ We use the information as the child grows and learns to listen to make changes in their HA program or CI map.
Collaboration between the two professionals

✓ Analyze the acoustic parameters of this information.
✓ Then the audiologist is able to adjust the programming to address the problem areas as a result of the collaboration between the two professionals.
What does the audiologist need to know?

Information from the AVT helps determine what changes may be made to the map or hearing aid settings. This information provides a basis for programming changes that may not be evident from audiologic testing.
What does the audiologist need to know?

✓ Ling sounds as screening tool
✓ Distance hearing: allows the child to hear soft sounds and overhear conversation
✓ Specific discrimination errors: adjusting the map to enhance discrimination between two sounds
What information does the audiologist need?

✓ Difference between production and perception

✓ Expressive and receptive language
Areas of difficulty as determined by the listening specialist

✓ Auditory abilities and areas of concern
   o Reaction to and perception of loud and quiet sounds.
   o Access across all frequencies.

✓ Speech perception
   o Common errors – nasal/oral, vowel (first and second formants), manner cues, voicing cues, place cues
   o Unusual patterns
Areas of difficulty as determined by the listening specialist

✓ Speech production
  ○ Look at areas on the audiogram and for patterns indicating possible difficulties in specific frequency areas, or access to quieter speech features.
  ○ Look for unusual patterns or distortions.
Areas of difficulty as determined by the listening specialist

✓ Language development: Look at areas on the audiogram and for patterns indicating possible difficulties in specific frequency areas.
✓ We can identify areas of difficulty and analyze the acoustic parameters of this information.
✓ Modifications in the settings of hearing aids or maps of cochlear implants can address these concerns.
What changes can audiologist make based on the shared information?

- CI thresholds: Access to soft sounds and distance hearing
- Frequency specific adjustments
  - Discrimination between sounds
  - Missing information
What to change?

- Reducing M/C levels
  - Loudness issues
  - Distortion
- Raising M/C levels
  - Clarity
  - Access to sound
- NRI/ART/NRT maps
What the therapist needs to know after mapping changes

✓ Changes in specific frequency areas.
✓ Changes in the T levels affecting quiet sounds.
✓ Changes in the M/C levels affecting loudness.
✓ Changes in electrical dynamic range.
Summary

Children with early diagnosis, early implantation or amplification, good technology, and listening therapy should make expected progress.

If there are issues in listening, language and/or speech, we should “go back to the hearing.”
Summary

Audiologist and AV therapist should work collaboratively to determine possible issues of concern.

As key members of the child’s team we need to work together to provide the opportunity for the child to reach his or her full potential.
THANK YOU!