

Remote Cochlear Implant Mapping: Lessons Learned During COVID

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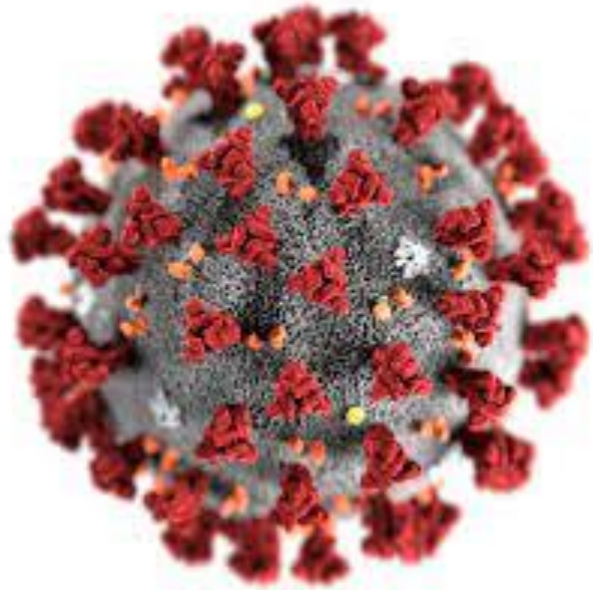


New England Center for Hearing Rehabilitation

Disclosure

- Co-Directors of the New England Center for Hearing Rehabilitation, LLC

Why Remote CI Visits?

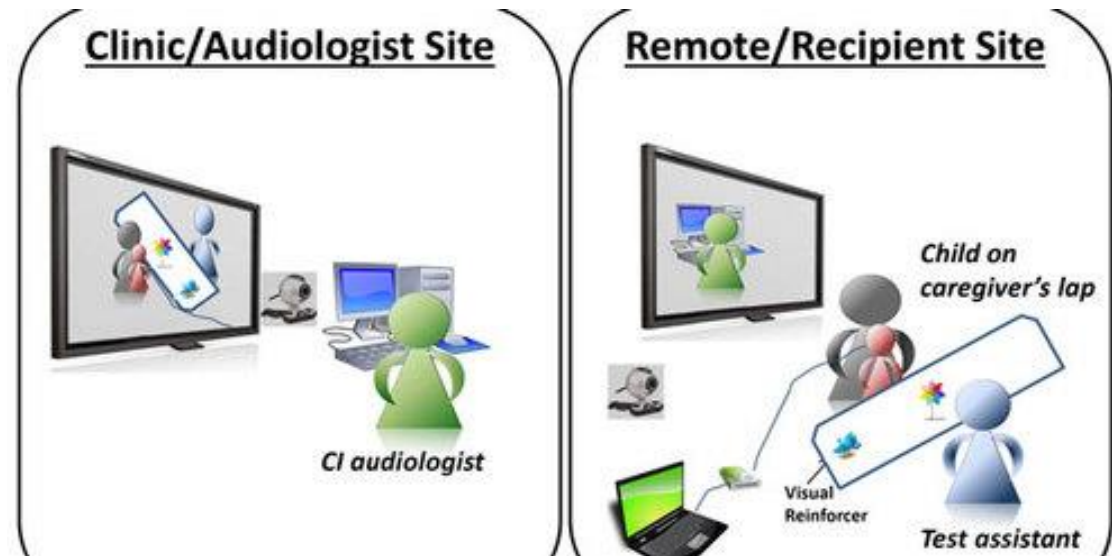


- COVID-19
 - Continuity of Care
 - ❖ Patients recently implanted
 - ❖ Patients scheduled for upgrades
 - ❖ Patients in need as “essential” employees
 - Allows for less individuals in one room
 - ❖ More family, more providers, etc.
- Improved Technology & Access
 - HIPAA compliant platforms
 - Faster internet
 - More savvy patients & families



Remote CI Programming Requires...

- Programming Equipment at Patient Site
- Cleaning Protocols
- Good WiFi Connections
- Extended or Multiple Sessions
- Patience



https://pubs.asha.org/doi/10.1044/2018_AJA-IMIA3-18-0002

Remote CI Programming

Prep

- Laptop computer with correct programming cables, cleaning supplies & pre-written instructions on how to setup were included in a kit
- E-mail with instructions
- Plan for delivery & signatures

Pre-Visit

- Connect to WiFi
- Setup Equipment
- Orientation Visit - Zoom Link

Visit

- Reminder e-mail sent with zoom link & instructions
- Once connected, audiologist requested “control”
- Parent/helper facilitated programming when possible
- Measures & functional assessment completed

Post

- Is more than one session needed?
- How long was equipment signed out for?
- Return of equipment



Remote CI Programming - Visit

- It is possible to complete a “typical visit”
 - Plan for completing measures
 - Plan for assessing performance
 - May need multiple visits
- Need support on the patient side to assist during programming and to help assess performance
 - Parent, Friend, Therapist
 - Need captioning access



Feedback from Remote CI Visits

- We sent the survey to 20 individuals/families that picked up equipment to be able to be programmed at home.
- 5-minute anonymous survey on Survey Monkey
- Responses
 - 1 Adult
 - 6 Parents



Benefits of Remote Programming

- Patients Reported

- Continuity of Care
 - ❖ Mapping schedules were not interrupted
- Less Travel
- Less Risk (Remained safe from Exposures)

- Audiologists Reported

- Less missed visits
- Continuity of care
- Patient/Family motivation
- Parent Involvement

"We were able to keep our child on his schedule for their mappings. That was a huge reassurance."

"I remained safe from any possible exposure."

"Accessibility , the remote mapping is the next best thing to seeing our clinicians in person. We are able to address acute issues without compromising my daughters hearing integrity with minimal delay."



Challenges to Remote Programming

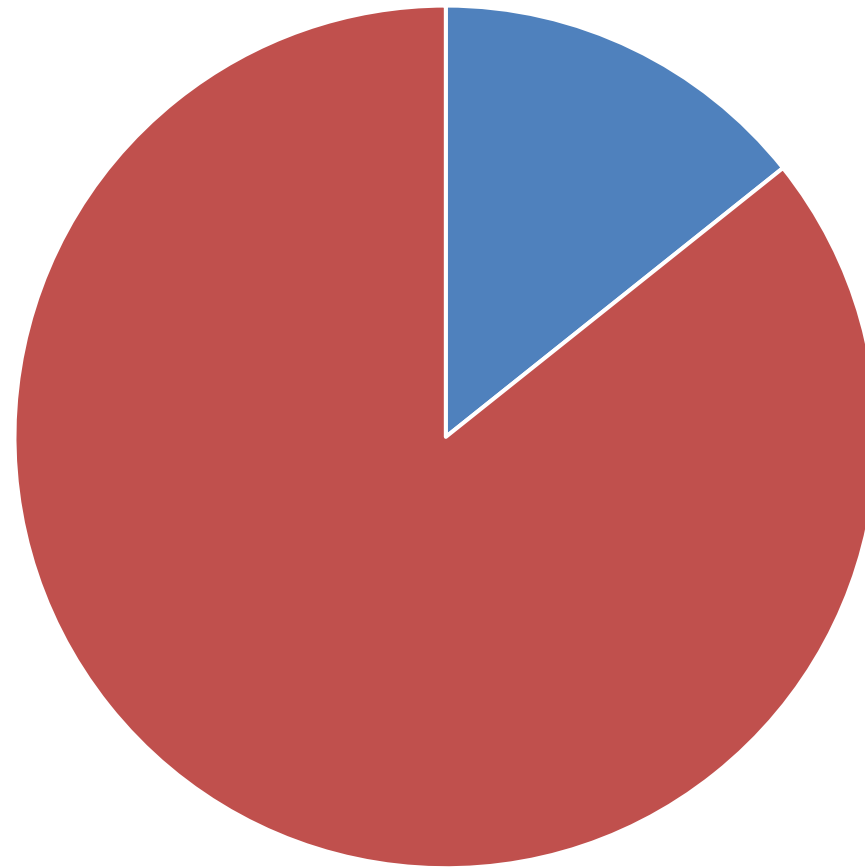
- Patients Reported

- Children were too distracted/difficulty keeping children engaged
- Compromised audio quality
- Sessions took too long

- Audiologists Noted

- Orientation visits were helpful
 - ❖ WiFi Connections & Passwords
 - ❖ Patient familiarity with general technology & CI specific technology
- Need for multiple visits for children & bilateral patients
- Uncertainty of audio quality during functional assessment

Future Visit Preference



■ Prefers Virtual ■ Prefers In-Person

What We Learned:

- Patients are interested in virtual visits, but prefer in-person
- Many adults/families needed an initial orientation visit
- Virtual visits can be successful & productive
 - Length of the visit is dependent upon functional technology & comfort on the part of the patient/family
 - Success for child visits is highly dependent on the support of a parent/caregiver
- Quality of the audio signal is a concern
 - Having in-person talkers ensures successful outcomes





Thank you!

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