Verification of Remote Microphones paired to Implants by Audiologists Who are Hard-of-Hearing

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INTRODUCTION

An auditory listening check of a remote microphone (RM) system paired to a cochlear implant (CI) is especially important, as electroacoustic analysis cannot be performed. Because listening check protocols and features vary based on the manufacturer, audiologists must combine information across multiple sources. Furthermore, there have been limited suggestions regarding the verification process for audiologists with atypical hearing. Currently, tutorials on the AAA webpage review accessible ways that audiologists with hearing loss can carry out hearing aid (HA) listening checks (Students with Hearing Loss, 2020). However, there are few resources that exist regarding listening checks on RMs that are paired with CIs.

PURPOSE

1. To provide a guide that illustrates methods for Hard-of-Hearing (HoH) audiologists who are CI or HA users to successfully carry out a listening check on a RM when connected to a cochlear implant
2. For audiologists to relay this information to parents or legal guardians who are cochlear implant and or hearing aid users to use for troubleshooting their child's wireless microphone technology.

EQUIPMENT

Research was completed using:
- Manufacturer Manuals
- Phonak Roger Configurator

Equipment used by those with atypical hearing:
- Roger Select
- Micro USB cord with 3.5 mm jack
- Phonak Audéo Paradise Hearing Aids OR MED-EL Sonnet 2 Sound Processor
- Roger (03) integrated receiver or Roger 21 receiver

Equipment used for RM Checks for three CI Manufacturers:

Cochlear
- Roger Touchscreen Mic
- Roger 20 receiver
- Cochlear Nucleus 7 (N7) CP1000 Sound Processor
- Cochlear Monitor Earphone Adaptor

Advanced Bionics (AB)
- Roger Touchscreen Mic
- Roger 17 Receiver
- AB Naida Q90 Sound Processor
- AB Listening Check Module

MED-EL
- Roger Touchscreen Mic
- Roger 21 receiver
- MED-EL Sonnet 2 EAS Sound Processer
- Microphone Test Device (MTD)
- Sonnet MTD Adaptor

RESULTS

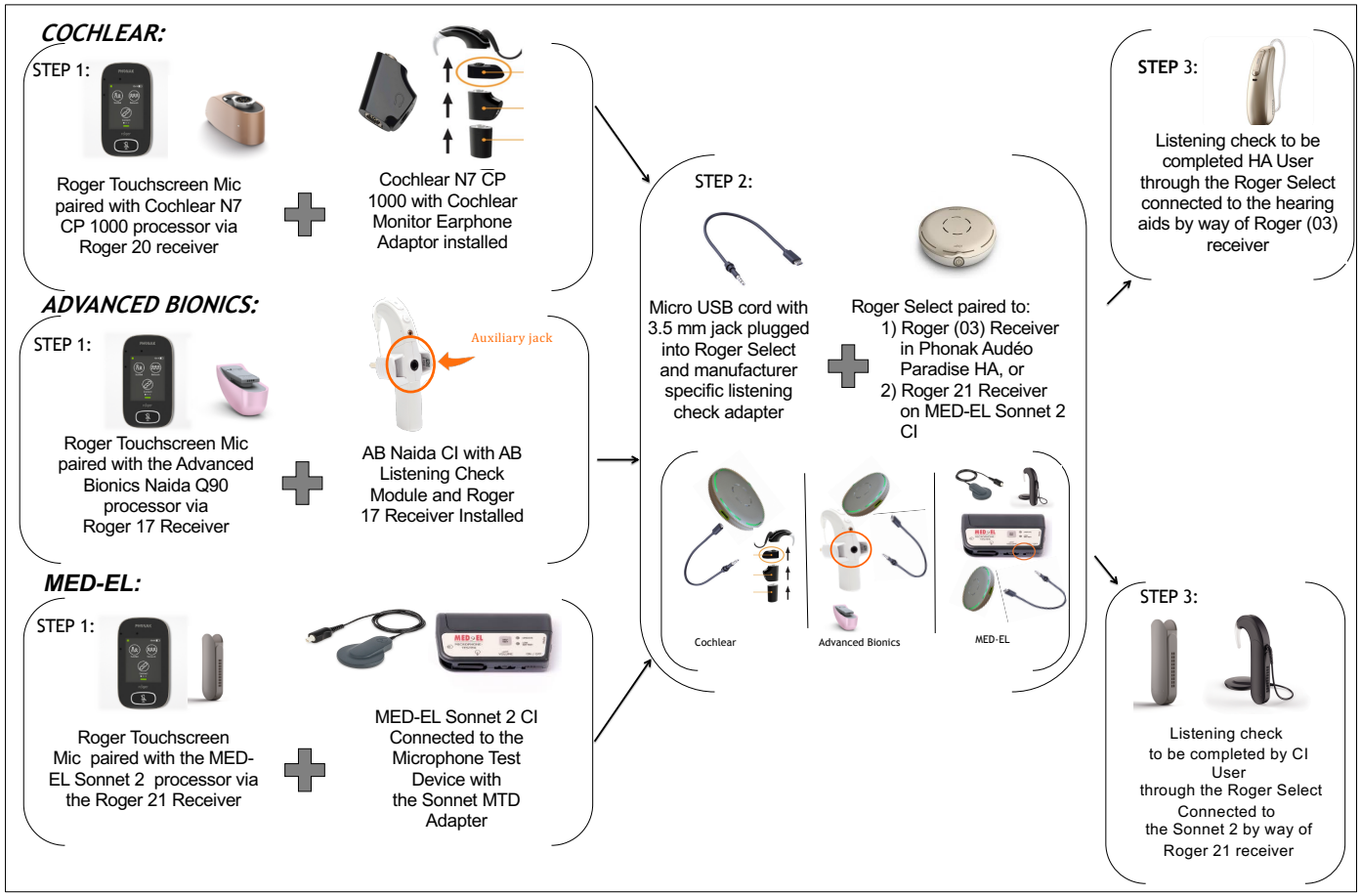

Figure 1. Listening Check Protocol for Remote Microphones Paired to Cochlear Implant by Hard-of-Hearing Listeners

SUMMARY

Figure 1 provides a guide for individuals who are Deaf or Hard-of-Hearing to perform listening checks on Remote Microphones paired to cochlear implants. Each CI is paired to a Roger Touchscreen Mic by the appropriate receiver. Each CI is connected to the manufacturer specific listening adaptor that can be connected to headphones so that persons with typical hearing can do the listening checks. Because Roger Select has an input jack, it can be connected to a 3.5 mm cord with a micro-USB connected to the Roger Select (as shown in *Figure 1, Step 2*). The HA or CI will of the listener will need to be set to the Roger Select program and brush the mic on the Roger Touchscreen Mic.

REFERENCES

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