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Technical issues with the Recording?

- Clear browser cache using [these instructions](these%20instructions)
- Switch to another browser
- Use a hardwired Internet connection
- Restart your computer/device

Still having issues?

- Call 800-753-2160 (M-F, 8 AM-8 PM ET)
- Email customerservice@AudiologyOnline.com

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Telehealth: Tips and Tricks Learned from Providing Virtual Care to Veterans

David Jedlicka, AuD

Tia Oliverio, AuD

Meghan Kennedy, AuD

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Disclosures

- **Presenter Disclosures:**
  - David Jedlicka: Financial: David Jedlicka serves as a Staff Audiologist at the Pittsburgh VA and is a part-time instructor in the AuD program at the University of Pittsburgh. Non-financial: David Jedlicka has no relevant non-financial relationships to disclose.
  - Tia Oliverio: Financial: Tia Oliverio is a Clinical Audiologist at the Pittsburgh VA. Non-financial: Tia Oliverio has no relevant non-financial relationships to disclose.
  - Meghan Kennedy: Financial: Meghan Kennedy is a Clinical Audiologist at the Pittsburgh VA. Non-financial: Meghan Kennedy has no relevant non-financial relationships to disclose.
- **Content Disclosure:** This learning event does not focus exclusively on any specific product or service.
- **Sponsor Disclosure:** This course is presented by AudiologyOnline.

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Learning Outcomes

After this course, participants will be able to:

- Describe methods for connecting with patients to provide telehealth.

- Provide hearing aid counseling using phone or video-based telehealth.

- List audiology specialty care disciplines that can be provided via telehealth.

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Other Audiology Online Telehealth Courses

- Tele-Audiology Today: Research, Practical Demonstrations, and Fundamentals (#34552)

- Tele-Audiology Today: Background, Current Practices, and Case Examples (#34494)

- Telepractice in Audiology (#32392)

- 20Q: Teleaudiology - The Future is Now (#30730)

- Telehealth & Technology Applications in Audiology Care (#29809)

- Expanding Pediatric Services Through Telehealth Applications (#28828)

- 20Q: Audiology to the People - Combining Technology and Connectivity for Services by Telehealth (#23263)

- And many offerings from our industry partners.

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Purpose of Our Presentation

- To provide real world examples of how telehealth is used in audiology
- To help the field learn from our mistakes
- To (hopefully) make others more comfortable with providing telehealth based care
- To highlight how specialty areas in audiology can be completed using telehealth (balance, tinnitus, and cochlear implants)
- To show what apps and programs are available to complete telehealth visits at the VA.

Q6

What this presentation will not cover

- The boring (but essential!) requirements of what you will need to start your own telehealth program
- Examples of when no telehealth solutions were available
- How to bill for telehealth services (we know that's the question on everyone's mind)
- Specific recommendations for apps or programs to use for your own telehealth practice

COVID-19 Our Spark of Inspiration

- Telehealth services at the Pittsburgh VA were available, but not widely used
- Telework was approved for VA Pittsburgh audiologists thus requiring the use of telehealth in order to see patients (and justify working from home)
- VA telehealth experts provided resources for all VA's to follow
  - Dr. Chad Gladden, Dr. Darrin Worthington, Dr. Anna Black, Dr. Andrea Bourne and others were pioneers in creating and helping improve VA Audiology telehealth services.

VA Telehealth Options

- Can be completed using a phone, tablet, or computer.
- VA Video Connect (used exclusively for video telehealth prior to COVID-19)
- Apple Facetime
- CISCO Webex
- Doximity Dialer
- Facebook Messenger Video Chat
- Google Hangouts
- Microsoft Teams
- Skype
- Whatsapp
- Zoom

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Tip #1

- Make sure you check and test all of your equipment prior to completing telehealth visits
  - Any equipment that may be used should be verified to be working prior to the appointment.

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Example 1

- 78 year old Veteran
- Previous hearing aid user (full shell ITE)
- Completed audiometric and hearing aid evaluations
  - Decided to stay with same style and manufacturer
- Hearing aid fitting appointment was canceled due to COVID-19 clinic closure
- Veteran was contacted and we agreed to:
  - New aids be mailed to him
  - Hearing aids would be programmed using SREM
  - Veteran would return to the clinic when open for REM + follow up
  - A telehealth hearing aid counseling appointment would be completed

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Example 1

- Veteran reported that he had an LG smart phone and would complete the telehealth visit using his smart phone
  - Veteran denied having a computer with a webcam
  - I did not ask what phone the Veteran was using
- Instructions were sent to the Veteran to download the VA Video Connect App and use the link in the email to join the visit

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Tip #2

- Help your patient's check their connections
  - This can include creating a standard list of questions to ensure they have the required equipment and connections needed for telehealth visits. The patient may be connecting from home, work, or another hospital.

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Example 1

- Veteran did not enter the video chat on the day/time of the appointment

- Veteran was called and reported that he wasn't able to join the video chat

- Further discussion found the patient's LG phone was a flip phone and he believed that Bluetooth connectivity meant it was a smart phone

- A telephone counseling telehealth appointment was completed and the patient is doing well

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Example 2

- 74 year old Veteran

- Completing video based follow up visit for open fit RIC style hearing aids (previous user, switching manufacturers)

- Veteran doing well, but requesting video demonstration of wax filter changes

- Veteran reported he would use his iPad due to the larger screen compared to his cell phone

- Veteran lives with his daughter

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Tip #3

- Prepare for your telehealth visit when your patient is in the clinic
  - Help them download any apps and provide a hands on demonstration of how they will need to connect to the visit from home.

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Example 2

- The Veteran contacted the clinic during the COVID-19 closure to set up the telehealth visit.
- The patient was given instructions on how to download the VA Video Connect App and was made aware that an email would be sent with a link for the video chat.
- We remained on the phone with the Veteran to ensure he had the required items for the visit.

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Tip #4

- Include the patient's family, friends, or caregivers
  - A patient may not have the capability to complete a telehealth visit on their own, so the patient, audiologist, audiology assistant, family member, or caregiver may need to be involved in the telehealth process.

Q2 & Q5

Example 2

- The Veteran was unable to access his email or download the app as he forgot his Apple user ID and password. He also forgot the password to his email address.

- The Veteran's daughter used her iPad to download the software and the link was emailed to her.

- The video based telehealth allowed us to determine he was properly changing the batteries, wax traps, and volume control.

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Balance Based Telehealth

- Functional Balance Assessments and Dix Hallpike testing can be completed.
- Recommend having a family member present
- Canalith Repositioning can also be completed
- Must have video capability
- Dizziness screenings and counseling may also be provided.

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Dix Hallpike and Telehealth

- Have the patient sit on the bed with their camera facing their eyes
- Give the patient the instructions to complete the test and determine if the test is positive or negative
  - Easier to do with a family member present
- If the test is positive, repositioning maneuvers can be provided to the patient and video telehealth can be used to ensure they are completing this properly

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Functional Balance Telehealth

- Most functional balance assessments can be completed with telehealth

- 2 recommended due to ease of use and scoring:
    - Romberg Test – Have the patient orient the camera so you can see their entire body. Give the patient instructions and score the test to determine if the patient is at risk for falling
    - Timed Up and Go Test – Have the patient measure a spot 10 feet from a chair. Patient must stand up, walk to that point, come back, and sit down within 10 seconds.
    - Both tests are easier to administer with a family

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Tinnitus and Telehealth

Dr. Tia Oliverio

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Tip #5

- Prepare for the visit in the same manner as you would for an in-person visit
  - Having the tools you need for the appointment will allow you to provide consistent care and will limit the number of disruptions during your telehealth appointment.

continued

Tinnitus in the clinic

- Audiologic evaluations
- Tinnitus retraining therapy (TRT)
- Counseling
- Fitting of hearing aids and sound machines
- Cognitive Behavioral Therapy (CBT)

continued

Tinnitus and Telehealth

- ~~Tinnitus diagnostic evaluations~~
- Tinnitus retraining therapy (TRT)
- Counseling
- Fitting of hearing aids and sound machines
- Cognitive Behavioral Therapy (CBT)

Progressively more severe problems caused by tinnitus

Level 5 Individualized Management

Level 4 Tinnitus Evaluation

Level 3 Group Education

Level 2 Audiologic Evaluation

Level 1 Triage

Bothersome tinnitus

Non-bothersome tinnitus
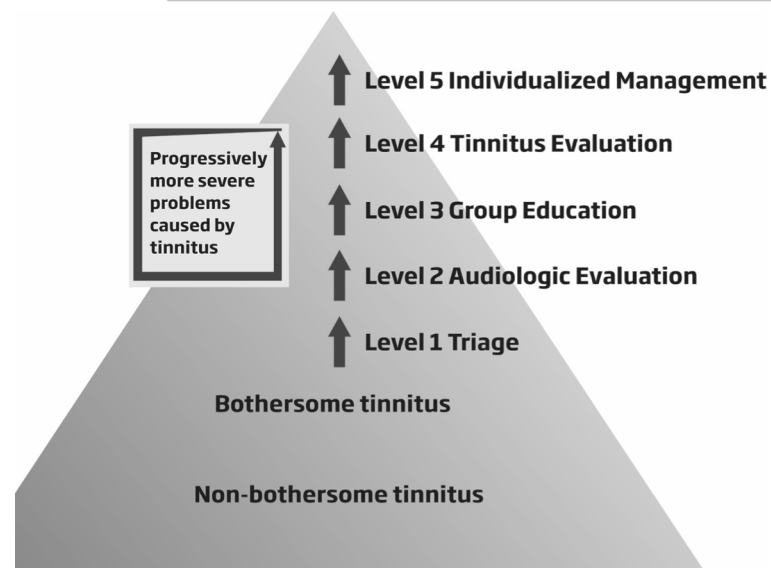
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Level 1- Triage

- Audiology
- Emergency Care
- Otolaryngology
- Mental Health

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Level 2- Audiologic Evaluation

- Not available via telehealth
- Hearing test, possible hearing aid discussion, referrals to ENT
- May be able to complete tinnitus outcomes measures, especially on known patients

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Tinnitus and Telehealth

- May be best practiced on known patients or patients who have recently completed audiologic evaluation/level 2 of PTM.

- From this point, we can prescribe ear level devices and assess need for further tinnitus evaluation.

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Level 3-Group Tinnitus Education

- Mail handouts prior to class date
- Share screen with participants
- Group discussion and education
- If possible, include a mental health provider to provide CBT

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Level 4- Tinnitus Assessment

- Goal is to identify any issues that are preventing tinnitus management progress

- Continued joint work with mental health provider

- Cannot complete tinnitus psychoacoustic measures via telehealth

- Adjustment to ear level devices (*Some tinnitus software programming is not available via remote programming)

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Level 5- Individual Care

- Via telehealth, continue education, mental health work, counseling as needed on an individual basis.

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Tinnitus and Telehealth

- Many levels of PTM can be achieved via telehealth
- Providers and patients need appropriate equipment
- Providers should have professional referrals ready if needed
- All educational materials and outcome measures can be mailed or shared with patient

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Telehealth Case

Receptive and Expressive Communication Disorders

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Tip #6

- Use technology that is best for you and your patient
  - If you are able to use a program that your patient is familiar with, this will improve the patient experience.

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Case history

- 80 y.o. male
- Expressive aphasia post stroke since 2015
  - Speaks in small phrases
  - Makes semantic errors (ex: daughter/wife)
- Sensorineural hearing loss
  - NH through 2kHz, sloping to moderate bilaterally
- First time hearing aid user
- Wife helps with communication

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Hearing aid fitting

- Patient was fit with hearing aids in a face-to-face appointment February 2020.
- RECD and speechmapping revealed a satisfactory fit to NAL-NL2 targets through 8000Hz using Verifit 2.
- Difficulty inserting the hearing aids; limited mobility of right hand.
- Otherwise did well with care and use with wife's assistance.

Telehealth follow-up

- Discussed follow-up modality options with wife. Video call was chosen.
- Follow-up was completed via video call due to COVID-19 pandemic. Patient at home, provider at home office.
- Discussed privacy and safety with patient (both parties in a secure, private location).

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Telehealth follow-up

- Began with open ended questions ("How are you doing with your hearing aids?")
  - Patient able to express questions/concerns that are a top priority to him.
- Reviewed insertion and VC on hearing aid
  - Demonstrated insertion with a "dummy" aid
  - Reviewed manual (for VC use) and gave manufacturer tech support number
- Completed outcome measures
  - Pt. reports doing "Better" and "Much Better" "Most of the time" with his 3 COSI goals.

Q7

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Importance of telehealth

- Visual aid for patient to practice care and use skills.

- Patient supplements spoken communication with visual cues (expressions, pointing, etc.) and written sentences.
  - Decreases patient frustration, increases ease of communication, improves appointment flow.
  - Guides audiologist to patient needs.

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Tip #7

- Have a backup plan ready
  - Unexpected issues will occur and it is your responsibility to ensure that the visit is not lost due being unprepared.

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Cochlear Implants / Hearing Aid Remote Programming

Dr. Meghan Kennedy

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CONTINUED

Tip #8

- Don't discriminate
  - Ask every patient who is eligible for telehealth based services if they would be interested in a virtual visit.

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Cochlear Implants and Telehealth

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Necessity of Telehealth for CIs

- Access to properly trained cochlear implant (CI) audiologists and to CI technology and services is not available at every audiology clinic or in every hospital

- Some patients, especially those in rural and remote areas, may live far away from cochlear implant sites leading to difficulty maintaining consistent CI services

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Benefits of CI Telehealth

- As patients find cochlear implant services more readily available through remote care services:
  - Wait times may decrease at CI sites
  - Travel times and subsequent costs may decrease for patients
  - Improved adherence to CI use, treatment plans and aural rehabilitation may be noted

- Limitation of CI Telehealth
  - In general, the patient cannot be at home during a CI telehealth appointment but must present at a clinic with a provider

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Determine Eligibility

- Ensure both sites have the appropriate technology, facilities and personnel required for quality patient care
  - Cochlear implant audiologist at provider site
  - Recommend a non-CI audiologist at patient site
- It is highly recommended that the patient has been seen in the clinic for initial programming of their device and has had some experience with CI use prior to a CI telehealth appointment
  - However, COVID-19 has led to some flexibility on this issue

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Appropriate Appointments

- Annual CI Re-Programming and Testing
- Cochlear Implant Problems or Repairs
- Follow-up appointments (after initial fit)
  - Continued counseling on CI care and use
  - Any re-programming or continuation of initial programming (measure impedance / write maps)
  - Aural rehabilitation tasks

Q9

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- The key to a successful CI telehealth appointment is to ensure the practitioners at the provider site and patient site are adequately prepared before the virtual appointment
  - Ensure all providers' schedules are blocked at designated time
  - Ensure technology is functioning including video calls, sharing computer screens, CI software, etc.
  - Ensure all cables provide a successful connection to the sound processor
  - Ensure all supplies for CI maintenance are available and accessible

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Outline of Appointment

- Non-CI audiologist at patient site initiates the video call with the CI audiologist at the provider site
  - Ensure that the patient is connected to the CI software at the patient site and that the CI audiologist has control of the software at the provider site
- CI audiologist would then complete the CI appointment as they would face-to-face
  - Obtain patient history since last visit, re-program the sound processor, save new MAPs/programs to any sound processors

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CI Telehealth Limitations

- Any maintenance on sound processors or external components are completed by the non-CI audiologist before the telehealth session begins

- Non-CI audiologist should complete post-operative speech perception testing if necessary and time permits during clinic visit

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- Remote programming for cochlear implant follow-up appointments was approved by the FDA in November 2017 for experienced users

- Since that time, multiple studies have confirmed both the effectiveness and safety of remote programming for CIs.

Overall, remote programming of CIs has been found to be a feasible alternate option when face-to-face appointments present challenges to patients.

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Tip #9

- Do a thorough case history chart review
  - This will allow you to ensure you have all of the items required to complete the visit.
  - Bonus Tip: If you are providing hearing aid maintenance / repair services, try to have that same model of hearing aid available to provide visual demonstrations for the patient.

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Remote Programming of Hearing Aids

A Case Study

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Remote Programming

- Remote programming of hearing aids is a beneficial option that must be considered when discussing telehealth options for patients

- Remote care of hearing aids allows for real-time programming changes to be made outside of the clinic
  - This allows for timely improvements to amplification and sound quality
  - Helps reduce burden of travel (distance or accessibility)
  - Can be used when emergency situations arise (COVID-19)

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Is Your Patient a Candidate?

- Patient must be comfortable with technology or have someone to assist them who is comfortable with technology

- Patient must have access to a smartphone or tablet with Bluetooth accessibility

- Patient must have compatible hearing aids

- Patient is able to download the required application onto smart device

- Strong and stable WiFi connection can be maintained

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Manufacturer Specifics

- It should be noted that each manufacturer has requirements that are specific to them.

- Additionally, some manufacturers may require that remote care is activated in the patient's hearing aid software prior to a remote programming session being possible. This means one additional office visit may be necessary to activate remote programming.
    - Implications with COVID-19

- All additional requirements should be reviewed prior to the patient's remote programming appointment when determining candidacy.

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Audiologist Requirements

- Make sure your computer has:
    - All necessary hearing aid software
    - A camera, microphone and speaker for video calls
    - Appropriate internet connection

- Ensure you understand how to activate and use remote programming in the manufacturer software prior to the appointment

All technology should be tested in preparation for the patient's appointment to ensure the highest quality of care.

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Remote Programming

- Patient should ensure that they have set-up an account on the manufacturer app and connected their hearing aids to the app/smart device prior to the virtual appointment.
  - It may be beneficial to walk the patient through downloading and setting up the app and pairing their hearing aids to the smart device during a previous appointment.

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Remote Programming

- At the agreed upon appointment time, the audiologist initiates the virtual visit via the patient's hearing aid software.
  - A video call will begin and the hearing aids will be connected to the software.
- As long as the hearing aids have been appropriately connected to the smart device, programming of the devices can be completed and saved to the aids as normal.

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Case Study

- 70 year old male
- Bilateral sensorineural hearing loss with constant, bilateral tinnitus
  - Normal sloping to profound SNHL
- Currently using recently dispensed Oticon Opn S1 RIC-Rechargeable hearing aids
  - He was a previous hearing aid user
  - Hearing aids were fit using simulated REM as his fitting appointment was cancelled due to COVID-19

continueD

Follow-up

- Patient contacted the clinic and reported minor problems with the sound quality of his new hearing aids:
  - Feedback
  - "Lisp at the end of words"
- Otherwise, patient was doing well with his devices
- After review of candidacy criteria with the patient, it was decided remote programming would be an appropriate option for him

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Beginning the Process

- Intended to complete the entire process the day that the patient contacted the clinic

- Walked him through downloading the Oticon RemoteCare App on his Android and setting up his account.

- Required verification of email address to complete account set-up and pair hearing aids
  - Patient entered his email address and then informed me that he could not access the email account until the following Monday – process at a standstill

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Tip #10

- The best way to become comfortable providing telehealth services is by doing it regularly
  - It can be intimidating at first, but once you've completed a few visits, you will feel at ease as a telehealth audiologist.

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Resolving the Problem

- A time was agreed upon between the patient and provider to continue the remote care appointment.

- At the agreed upon time, he was able to access his email and I walked him through finishing account set-up via telephone.

- Hearing aids were appropriately paired to his smartphone with provider assistance.

- High frequencies and the output for soft sounds were decreased bilaterally. Patient noticed immediate improvement and was satisfied with all changes.

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How to Streamline?

- An additional appointment prior to the remote programming appointment to ensure the patient's app was downloaded, account was set-up and hearing aids were paired would have led to the remote care appointment going much smoother.

- Alternate options:
  - Assist the patient in downloading the app, setting up their account and pairing their hearing aids at the fitting appointment
  - Mail the patient detailed instructions on preparing for a remote care appointment prior to the agreed upon date

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Details for Some Manufacturers

- Patient must have access to a smartphone or tablet with Bluetooth accessibility:
  - Oticon requires an iPhone or iPad with iOS 12.0 or higher or an Android with OS 8.0 or higher
  - ReSound requires an iPhone or iPad with iOS 12.0 or higher
  - Starkey requires an iPhone or iPad with iOS 13.0 or higher or an Android with OS 7.0 or higher
  - Phonak requires an iPhone or iPad with iOS 12.0 or higher or an Android with OS 6.0 or higher
- Compatible hearing aids
  - Oticon Opn
  - ReSound LiNX Quattro, ENZO Q, LiNX 3D or ENZO 3D
  - Starkey Livio
  - Phonak Marvel
- Patient can download the required application onto smart device:
  - Oticon RemoteCare App
  - ReSound Smart 3D App
  - Starkey Thrive App
  - myPhonak App

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Q&A

- Thank you for your time!

- Please feel free to submit any questions.

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