eAudiology: For right now and for the future

William (Bill) Campbell, MCISc
eEHDI Advocate & Activist, Audiologist, a Past President of CAA

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Canadian Academy of Audiology is a professional association dedicated to enhancing the role of audiologists as primary hearing health care providers through advocacy, education and research.
Dr. Salima Jiwani is a Past President of CAA, and is the clinical and research Director of Audiology at AudioSense Hearing & Balance Inc., a centre of excellence in Hearing and Balance Healthcare.

Salima earned her Ph.D. in auditory neurophysiology with the Institute of Medical Science at the University of Toronto.
Speaker: William (Bill) Campbell
MCISc, eEHDI Advocate & Activist, Audiologist, a Past President of CAA

Voted “Most Likely to Invent Something” by his graduating audiology class at Western University in 2000, Bill Campbell has been involved in eAudiology since 2008. A regional program coordinator and audiologist for the Ontario Infant Hearing Program in Thunder Bay Ontario, Canada since 2001, Bill has worked to solve access to services barriers in remote northern Canadian communities. He has collaborated with the National Centre for Hearing Assessment and Management (NCHAM) in developing a resource guide supporting teleaudiology. Bill has also collaborated with the University of South Dakota in developing their infant teleaudiology and related training program.
eAUDIOLOGY

For right now, and for the future
COVID-19 Pandemic

◦ Most clinics are being restricted to providing services where there are “time sensitive circumstances to avert or avoid negative patient outcomes or to avert or avoid a situation that would have a direct impact on the safety of patients” (College of Audiologists and Speech Language Pathologists of Ontario, March 26th, 2020). [https://caslpo.com/sites/default/uploads/files/INFO_EN_COVID19_Further_Telepractice_Guidance_Group_Email_Sent_Mar_26_2020.pdf](https://caslpo.com/sites/default/uploads/files/INFO_EN_COVID19_Further_Telepractice_Guidance_Group_Email_Sent_Mar_26_2020.pdf) Please note that ZOOM is not a secure platform and should not be used.

◦ Clinics face challenges in retaining staff, remaining financially viable, and providing much needed services to their patients.

◦ Many audiologists are considering eAudiology in some form as a temporary solution during the current crisis.
eAudiology Streams

01
Hearing Assessment

02
Hearing aid related activity

03
Patient counselling
Terminology

○ Hub site: Where the clinician is located.
  ○ Generally where all patient data is stored, electronically or on paper.

○ Spoke site: Where the patient is located.
  ○ This may be at another clinic site, hospital, senior’s facility, or in a home.
Let’s talk privacy

- Current consent and privacy practices won’t change.
- Additions will be needed to cover video, audio, and data transfer and storage depending on your application.
- Consent can be written or verbal (and charted).
- Informed consent is key. Be sure your patient understands the process and potential consequences.
Current Guidelines

- “During a public health crisis, privacy laws still apply, but they are not a barrier to appropriate information sharing” (Office of the Privacy Commissioner of Canada).

- “We understand that these are exceptional circumstances and it may not be possible for you to meet the same standards for security and privacy protection that you normally do” (Information and Privacy Commission, Ontario).

- Office of the Information and Privacy Commission (BC) “Tips for public bodies and organizations setting up remote workspaces”.

- The OIPC has noted that privacy laws do not impede the work of public health officials during a public health emergency. What constitutes “reasonable safeguards” during a public health emergency may be different from normal circumstances (OIPC Alberta). Note that Alberta requests notification of a new administrative practice or information system via email.
Current Guidelines

◦ "Don't Blame Privacy – What To Do and How To Communicate in an Emergency“ (OIPC Newfoundland and Labrador).
◦ “WORKING REMOTELY Guidance for Employees of Public Bodies and Custodians” (OIPC Yukon)
◦ “Privacy in a Pandemic” (OIPC NWT).

◦ All advocate for adherence to the relevant federal/provincial/territorial privacy acts and guidelines when working in the pandemic. The indicated “relaxing” of privacy regulations should not apply in audiology except in pandemic related circumstances.
Privacy, confidentiality, security, & consent

- Follow the rules, regulations, guidelines that you do now.
  - In regards to client confidentiality, record keeping, consent to test, etc.
- The difference will be in the additional steps for audio/video/data transfer and storage.
- Use a secure videoconference platform. NOT Facetime, Skype, ZOOM, etc.
- Business Associate Agreement! With a BAA, Microsoft products are considered HIPAA compliant. Skype for Business falls under this umbrella.
- Consider federal, provincial, and agency/clinic policies
Privacy, confidentiality, security, & consent

- Ask yourself:
  - Will the audio/video be recorded and stored?
  - Will the patient data be stored or transmitted other than as in face to face?
    - i.e.: a computer using NOAH is situated at the spoke site, or moved between sites.
- Gear your policy and consent to your situation.
- Informed Consent:
  - Patient must be aware that audio/video as well as data is being transmitted and what the potential consequences might be.
    - i.e.: information is intercepted and re-transmitted.
  - Patient must be aware of the security of the hub and spoke site.
Resources:

- Phonak ABC’s of eAudiology
  - 10 steps to Record Keeping & Data Protection.
- Provincial/Territorial Office of the Privacy Commission.
- Agency/Clinic policy and procedure.
Audiology Assessment with eAudiology

- Testing hearing can be logistically challenging.
- Requires specific equipment at spoke site.
  - Appropriate environment.
  - Secure PC based audiometer.
    - Different options offer different solutions.
  - Webcam/mic, monitor.
  - Video otoscope.
  - Tympanometer?
  - Staff (intake, client prep)
Hearing Aids

- There are a variety of ways to access and interact with a patient’s hearing aid.
  - Situate a Noah equipped laptop and related connection accessories at a spoke site.
    - Remote control of a secure spoke laptop.
    - Connect to hearing aid with manufacturer interface (including cords, etc.)
    - Videoconference communication with patient.
  - Access hearing aids through manufacturer provided connections (Smartphone).
    - Secure
    - Spoke staff and equipment not needed.
    - Caregiver can provide support (with consent).
    - Works best with experienced hearing aid wearers.
    - May not be suitable for some situations, i.e. first time pediatric fit.
Patient Counseling

◦ Probably the most useful aspect of eAudiology in the current situation.
◦ Videoconference and other solutions facilitate effective remote patient interaction for a variety of issues and concerns.
◦ Anything from hearing aid maintenance and repair to auditory rehabilitation.
◦ Clinician or support staff can interact with the patient directly, or can direct them to video or instructional support (such as manufacturer material)
Patient Counseling

- Clear backlog appointments:
  - WSIB (Ontario) reviews
  - Hearing aid reviews for experienced users.
  - Minor troubleshooting.
  - Minor, patient managed repairs and cleaning.
  - Questions and concerns from new users.
  - Structured auditory rehabilitation.
Considerations

- Do you have a plan in place to ensure privacy and confidentiality?
- Are you in compliance with federal, provincial/territorial, and agency policy?
- Do you understand telemedicine etiquette?
- Is your staff aware of the solutions being used? Will they participate? Are they trained in their scope of practice and telemedicine etiquette?
- Are you able to handle technical issues, or do you have IT support?
- Practice, practice, practice.
Moving Forward

- eAudiology is an excellent solution to the current crisis.
- Consider what works and what doesn’t. What is useful and what is not useful.
- Invest resources in the solutions that were efficient and beneficial to the clinic and to your patients.
Resources


Resources

- Ferguson, M. mHealth technologies empower users of hearing healthcare. 

- Timmer, B. The future of audiology rehabilitation? Smartphone apps to collect real-world experiences and support clinical decision making. 

Questions?

- If you have specific questions that could not be answered today due to time constraints, please feel free to email me at bill@superiorhearing.ca.