



College of Audiologists and  
Speech-Language Pathologists of Ontario

Ordre des Audiologistes et  
des Orthophonistes de l'Ontario

# PRACTICE STANDARDS FOR THE PROVISION OF HEARING AID SERVICES BY AUDIOLOGISTS

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## A) PREAMBLE

This document serves to identify the standards of practice for all audiologists in Ontario when providing hearing aid services to people of all ages and abilities. Practice standards essentially define the level of practice required to ensure safe and competent care and are identified through consensus within the profession. These standards reflect the generally accepted practices adopted by Ontario audiologists providing hearing aid services.

Standards of practice articulate expectations with regard to the knowledge, skill and judgement that the member must possess, as well as specific practices to which they must adhere. Generally, standards are developed through a process of consensus within the profession. However, this does not preclude the College from setting a standard that is not currently practiced by the profession, if there is compelling evidence to suggest that a standard should be set to mitigate significant risk. In such cases, it is the College's duty to gather appropriate evidence, set the standard and allow the members respond.

CASLPO's (the College) Practice Standards for the Provision of Hearing Aid Services by Audiologists ensure quality care to the people of Ontario who require hearing health care.

Audiologists are ethically responsible to ensure they possess the competencies to provide hearing aid services and to ensure that their patients<sup>1</sup> are safe while doing so ([Code of Ethics 4.2.3 2011](#)).

**Note:** This Practice Standard not only outlines standards related to the provision of hearing aid services, it also defines specific activities which will be highlighted in grey boxes in the text, including definitions of prescribing, dispensing, fitting, verification and validation.

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<sup>1</sup> The term "patient" is used to represent an individual who receives health care intervention from an audiologist and is synonymous with "client" or "student". The use of the term "Patient" mirrors the language used in the *Regulated Health Professions Act, 1991* and by the Ministry of Health and Long-Term Care.

## B) DEFINITION OF SERVICE

The provision of hearing aid services includes the determination of hearing aid candidacy, prescription of appropriate hearing aids, dispensing of the prescribed hearing aids, verification and validation of the benefits of the hearing aids as well as the provision of ongoing support and follow up for patients who wear hearing aids.

For the purposes of this document, "hearing aid" is defined as any customized electronic device fitted to the ear and designed to amplify and deliver sound to the ear. Provision of hearing aids requires consideration of electroacoustic and non-electroacoustic characteristics using an evidence-based approach.

The general principles of the practice standards may also guide the prescribing and dispensing of other devices such as implantable devices (e.g. cochlear implants, bone anchored auricular prostheses), vibrotactile devices, and assistive listening devices, where applicable.

The need for hearing aids is determined by the joint participation of the audiologist and the patient and/or SDM and requires a comprehensive hearing assessment, the standards for which are outlined in the [Practice Standards and Guidelines for Hearing Assessment of Adults by Audiologists](#) and [Practice Standards and Guidelines for Hearing Assessment of Children by Audiologists](#).

Throughout this document, the term hearing aids and/or devices (in plural) will be used, acknowledging, however, that there will be occasions when the patient needs or chooses only one hearing aid or device.

## C) SCOPE OF PRACTICE

The [\*Audiology and Speech-language Pathology Act, 1991\*](#) defines the overall scope of practice of audiologists in Ontario:

“The practice of audiology is the assessment of auditory function and the treatment and prevention of auditory dysfunction to develop, maintain, rehabilitate or augment auditory and communicative functions.”

### CONTROLLED ACT

Under The [\*Regulated Health Professions Act, 1991\*](#) S(2)10, it is a controlled act in Ontario to prescribe a hearing aid for a hearing impaired person .

The [\*Audiology and Speech-language Pathology Act, 1991\*](#) specifies that the profession of audiology is authorized to perform the controlled act:

“In the course of engaging in the practice of audiology, a member is authorized, subject to the terms, conditions and limitations imposed on his or her certificate of registration, to prescribe a hearing aid for a hearing impaired person.” 1991, c. 19, s. 4.

## D) RESOURCE REQUIREMENTS



Standard  
D.1

Audiologists must ensure availability of resources and equipment for the provision of hearing aid services.

In order to provide appropriate hearing aid services, audiologists must have access to properly maintained equipment. Hearing testing must be done using calibrated instruments and following the [Practice Standards and Guidelines for Hearing Assessment of Adults by Audiologists](#) and the [Practice Standards and Guidelines for Hearing Assessment of Children by Audiologists](#). A variety of other resources must include protocols, equipment, and technology in order to:

- Examine the status of the ear
- Take ear impressions
- Perform listening checks of hearing aids
- Test hearing aid function
- Repair hearing aids
- Program and adjust hearing aids
- Obtain necessary electroacoustic and real ear measurements for verification
- Validate hearing aid benefit
- Provide support required for use, care, and maintenance of hearing aids



Standard  
D.2

Audiologists must ensure that all materials and equipment utilized in service provision are in proper working order.

All equipment must be maintained according to manufacturers' specifications and recommendations, as identified in the Self-Assessment Tool (Management Standard). Audiologists must also ensure equipment is calibrated, as required in [CASLPO's Code of Ethics 4.2.9 \(2011\)](#) Audiologists and Speech-Language Pathologists:

“shall ensure that all equipment used is calibrated and in proper working order”

In addition, audiologists must ensure that all equipment used is disinfected/sanitized in accordance with the [Infection Prevention and Control Guidelines for Audiology](#).



Standard  
D.3

Audiologists must ensure that the physical environment is appropriate for screening, assessment and management.

Audiologists must make reasonable efforts to ensure that the environment is acoustically appropriate, safe, accessible and private. Although certain standardized assessments may require quiet, one-on-one settings, other intervention techniques may require the context to be similar to that usually experienced by the individual, which are not generally optimal listening environments.

It is acknowledged that the quality of environments for intervention will be influenced by a variety of factors. However, when the physical environment is less than ideal, audiologists must provide clear and concise documentation in the patient's file as to the reason for the existing conditions and the potential impact of these conditions on the intervention outcome.

## E) RISK MANAGEMENT



Standard  
E.1

Audiologists must identify and manage risk factors including those related to physical and emotional risk as well as risk to communication outcomes.

Audiologists must take steps to minimize the risks associated with providing hearing aid services. These risks may be considered with respect to three categories:

1) Risk of physical harm and/or discomfort to the patient

Examples:

- Procedures which may pose a risk of physical damage to the ear (e.g. cerumen management, impression taking)
- Dangers of ingesting batteries
- Risk of further permanent hearing damage due to excessive sound levels
- Risk of infection

2) Risk of emotional/psychological harm to the patient

Examples:

- Participation in some procedures may be stressful
- Identification of hearing loss may contribute to a negative self-image

3) Risk of harm to patient communication outcomes

Examples:

- Provision of insufficient amplification resulting in poor audibility of sound may further reduce communicative and/or cognitive function, exacerbate developmental delay or increase social isolation
- Inappropriate hearing aid fitting resulting in painfully loud sounds puts the patient at risk of discomfort, and of rejecting the hearing aids, even if there is no risk of hearing damage
- Insufficient or inappropriate counselling resulting in less than optimal outcomes due to sporadic hearing aid use, inappropriate use of hearing aids (e.g. use solely in noisy environments) or rejection of hearing aids

Once risks have been identified the audiologist must implement an appropriate risk management plan. The plan should mitigate risk where possible and/or be able to address any complications that may arise, including a plan to refer to a physician, if necessary. In certain instances, immediate medical intervention may be required (e.g. impression material in middle ear, abrasion of the ear canal due to improperly fit hearing aid).

## F) INTERVENTION: COMPETENCIES AND PROCEDURES

The provision of hearing aid services requires a patient-centred approach. Hearing aid intervention must be customized to the specific needs, goals, motivation, and expectations of the patient and/or SDM, ensuring that language, cultural, health and social considerations are respected.

Below is an overview of the provision of hearing aid services by audiologists which may include the following components of care:

1. Determining hearing aid candidacy
2. Prescribing hearing aids
3. Taking ear impressions
4. Dispensing and fitting of hearing aids
5. Verification
6. Validation
7. Follow-up care, counselling and education



Standard  
F.1

Audiologists must ensure that they have the required competencies for the provision of hearing aid services.

Audiologists must ensure that they have the required competencies “as determined by their education, training and professional experience” ([Code of Ethics, 2011](#)). Audiologists should refer the patient to other professionals with regard to patient needs that fall outside of their scope of practice or competency. Further details are available in the Scope of Practice section of this document. Below is an outline of the competencies and procedures associated with each of the components of care.

### 1. DETERMINATION OF HEARING AID CANDIDACY



Standard  
F.2

Audiologists must assess hearing aid candidacy in collaboration with the patient and/or substitute decision maker.

A hearing impairment in and of itself is not the only factor that determines whether hearing aids are the best treatment option or are even an appropriate treatment option for a patient.

Following a comprehensive hearing assessment (see [Practice Standards and Guidelines for Hearing Assessment of Adults by Audiologists](#) and [Practice Standards and Guidelines for Hearing Assessment of Children by Audiologists](#)), audiologists must also assess the needs and capabilities of patients.

## COMPETENCIES FOR DETERMINING HEARING AID CANDIDACY

Audiologists must demonstrate knowledge, skill, and judgement in order to:

- Obtain and interpret valid and reliable case history and assessment data
- Interpret missing data or data of questionable reliability and validity
- Accommodate communication needs, lifestyle and personal factors, as well as level of motivation of the patient and/or SDM
- Consider the barriers to successful outcomes with hearing aids
- Determine the potential for obtaining benefit from hearing aids
- Counsel patients and/or SDM so they can make an informed decision regarding the use of hearing aids
- Collaborate with the patient and/or SDM to establish realistic goals for improved communication

## PROCEDURES FOR DETERMINING HEARING AID CANDIDACY

The audiologist must collaborate with the patient and/or the SDM to identify and evaluate the factors that determine whether the patient is a candidate for hearing aids. The audiologist must review all hearing assessment data to determine the type, degree, and configuration of the hearing profile as well as the patient's speech understanding ability. The audiologist must also review the patient's personal situation, including:

- Lifestyle and environmental factors
- Activities and participation factors
- Current and future cognitive abilities
- Current and future physical abilities
- Economic considerations
- Level of motivation to use hearing aids
- Health and social factors that would impact use, care, and maintenance of the hearing aids
- Goals for desired outcome through the use of hearing aids

## 2. HEARING AID PRESCRIBING

Prescribing hearing aids involves both the activities related to determining the most appropriate hearing aids and generating the actual "prescription" that directs the dispensing of hearing aids. There are practice standards related to both the activity of "prescribing" as well as the resulting "prescription".



## Prescribing

*The act of issuing a prescription for the dispensing of a specific hearing aid for an individual based on a comprehensive evaluation.*

## COMPETENCIES FOR PRESCRIBING HEARING AIDS

Audiologists must demonstrate knowledge, skill, and judgement in order to:

- Assess and consider the impact of the patient's hearing and communication needs on their quality of life (e.g. family and social relationships, participation in social activities, employment, etc.)
- Determine the impact of the patient's hearing on speech and language development
- Consider the relationship between assessment data and the intended prescriptive performance
- Consider coupling methods and venting considerations and their effects on the frequency-gain characteristics, physical comfort, and sound quality of hearing aids
- Integrate the patient's goals for improved hearing and/or communication and personal situation into the prescription by selecting the most appropriate technology and additional devices in order to meet those current and future goals
- Use a variety of prescriptive fitting formulas and procedures
- Work with a range of makes and models of hearing aids (which would include manufacturer software and hearing aid features and options)
- Assist patients and significant others in setting reasonable expectations regarding the benefits of hearing aids
- Map the patient's hearing and/or communication needs to the level of technology that would best meet the goals given the patient's financial considerations
- Mitigate risk factors that are identified (e.g. tamper-proofing, deactivation of volume controls)



Standard  
F.3

Audiologists must remain current with ongoing changes in technology.

In order to ensure that the patient receives the most appropriate hearing aid prescription for their needs, it is essential that the audiologist continually upgrade their knowledge of hearing

aid options with respect to various technologies, manufacturers, types and models of hearing aids, as well as other listening and alerting devices that may be beneficial.

## PROCEDURES FOR PRESCRIBING HEARING AIDS



Standard  
F.4

Audiologists must determine the specific hearing aid based on a comprehensive evaluation in order to issue a prescription.

The audiologist will gather the relevant assessment data and information obtained during the process of determining hearing aid candidacy. In collaboration with the patient and/or SDM, the audiologist will help to establish the patient's goals to meet their hearing and/or communication needs. The audiologist will counsel the patient and/or SDM regarding the expected benefits of hearing aids. This should include a discussion regarding levels of technology and associated costs. Participation in this process by family members, caregivers, significant others and involved professionals (e.g., speech-language pathologist, physician, home care nurse, education specialist, daycare staff, etc.) is strongly encouraged to provide ongoing support for the (re)habilitative process and to maximize the likelihood of a successful outcome with hearing aids.

The audiologist will select the most appropriate level of technology to meet the patient's lifestyle, communication, health, social, developmental, educational and vocational needs. The audiologist must consider the patient's cognitive abilities, developmental stage, as well as vision and/or dexterity when selecting the technology in order to ensure that the patient can manage their hearing aids and any of the user controls and/or additional devices (e.g. remote controls).

The audiologist will then generate a hearing aid prescription for the patient.



### **Prescription**

*The documented directive, given by an audiologist, specifying the hearing aid to be dispensed to an individual.*



Standard  
F.5

Prescriptions must communicate the necessary information in order to direct the accurate dispensing and fitting of the intended hearing aids.

Necessary information that must be included in the prescription:

- Patient name and secondary identifier (e.g. date of birth)
- Date of issue

- Ear(s) to be fitted
- Make, model, type
- Hearing aid performance specifications that align with the fitting formula
- Audiometric data/or any other data (e.g. electrophysiological measures) along with any necessary patient-specific information (e.g. unreliable respondent, auditory neuropathy spectrum disorder) from the assessment that would be required for dispensing and fitting.

If not covered by the above, other elements considered necessary must be specified, such as:

- Features including but not limited to directional microphone, telecoil, direct audio input, volume control, tamper-proofing, etc.
- Earmold style, material (e.g. hypoallergenic) and specifications for modifications including venting and tubing, were applicable
- Special applications for ear hooks including but not limited to pediatric ear hooks
- Special applications, including but not limited to bone conduction hearing aids, CROS/BICROS systems
- Colour
- Accessories

Prescriptions that are communicated to a third party (for example when the prescribing audiologist is not dispensing the hearing aids) must contain the necessary information in a consolidated format and must include, in addition to the above mentioned:

- member's name
- member's contact information
- member's CASLPO registration number
- member's signature



Standard  
F.6

The prescription must be documented in the patient record in an accessible format.

Audiologists must appreciate that all elements of the prescription are considered part of the patient record. Therefore, the patient has the right to access their personal health information which includes all elements of the prescription.

## 3. TAKING EAR IMPRESSIONS

### COMPETENCIES FOR TAKING EAR IMPRESSIONS

Audiologists must demonstrate knowledge, skill, and judgement in order to:

- Identify any health conditions as well as conditions specific to the external ear, ear canal, tympanic membrane, and middle ear that would affect how or if one would take an ear impression (e.g. presence of pressure ventilation tubes, skin conditions, medications)
- Consider the impact of different impression materials on the patient and the resulting impression
- Consider the relationship between shape and size of the ear impression and acoustic properties of the earmold
- Consider the retention requirements of the earmold
- Consider the gain requirements of the hearing aids
- Select most appropriate impression techniques and materials for the patient and consider their associated risks
- Determine the techniques and materials based on the purpose of the impression (e.g. swim plug, earmold, custom earphone, etc.)

## PROCEDURES FOR TAKING EAR IMPRESSIONS



Standard  
F.7

The audiologist must conduct an inspection of the ear and enquire about relevant medical/surgical factors when taking ear impressions.

The general case history may not contain the required information for taking ear impressions. Therefore, the audiologist must ensure they obtain a case history relevant to this procedure. The case history should include physical conditions of the outer and middle ear, and relevant medical/surgical factors.

The audiologist must examine the external ear and ear canal to determine if contraindications or risks are present. The audiologist must use appropriate ear impression techniques and materials and inspect the ear following the removal of impression material.

## 4. HEARING AID DISPENSING AND FITTING



Standard  
F.8

A prescription for hearing aids must be provided in order for hearing aids to be dispensed to a patient.

The [Regulated Health Professions Act, 1991](#), s. 31 states that “No person shall dispense a hearing aid for a hearing impaired person except under a prescription by a member authorized by a health profession Act to prescribe a hearing aid for a hearing impaired person.” Only two

professions have the authority to perform the Controlled Act of prescribing a hearing aid in Ontario: audiologists and physicians.



### **Dispensing**

*The act of providing the prescribed hearing aid(s) to the patient in good working order.*



### **Fitting**

*The act of ensuring the hearing aids are appropriately fitted physically and are set in alignment with the fitting formula.*

## COMPETENCIES FOR DISPENSING AND FITTING HEARING AIDS

Audiologists must demonstrate knowledge, skill, and judgement in order to:

- Determine whether the hearing aids are performing to the manufacturer's specifications
- Perform listening checks
- Evaluate the physical fit of the hearing aids in the patient's ears and make any necessary modifications
- Test hearing aid function using appropriate technology and interpret the results
- Use a variety of prescriptive fitting formulas and procedures
- Work with a range of makes and models of hearing aids (which would include manufacturer software and hearing aid features and options)
- Consider the impact of manufacturing modifications and restrictions on the acoustic performance and physical fit of the hearing aids or earmolds or other coupling device
- Consider the impact of programming or other modifications on sound quality of hearing aids
- Communicate technical information about use, care, maintenance of hearing aids
- Establish effective communication strategies and appropriate expectations for realistic outcomes with hearing aids
- Systematically troubleshoot any issues that arise with the hearing aids

## PROCEDURES FOR DISPENSING AND FITTING HEARING AIDS

Once the goals for amplification have been determined, the hearing aid prescription has been generated and the hearing aids and earmolds received, the process of dispensing and fitting the hearing aids begins. This process requires several steps or stages, which are not necessarily sequential, and may occur over multiple clinic visits, culminating in an optimal

fitting for the patient. The fitting process begins with ensuring the hearing aids are in good working order.



Standard  
F.9

Audiologists must ensure that the physical fit of the hearing aids is appropriate.

The audiologist must ensure that the hearing aids sit properly and securely in the ear and that the patient finds them comfortable. Physical fit should be assessed to ensure ease of insertion/removal as well as to ensure that feedback is not present or minimized.



Standard  
F.10

Audiologists dispensing and fitting hearing aids must ensure that the hearing aids are programmed using a fitting formula that is appropriate for the patient.

Initial settings should be based on a prescriptive fitting formula appropriate for the patient. There are occasions when the audiologist who prescribed the hearing aids is not the same audiologist who is dispensing and/or fitting the hearing aids. Throughout the process, if the audiologist dispensing or fitting the hearing aid(s) wishes to change any aspects of the hearing aid prescription, CASLPO's [Position Statement on Changing Hearing Aid Prescriptions](#) must be followed. In such instances the dispensing audiologist must make reasonable attempts to contact the prescribing audiologist in order to determine if the change the prescription is in the patient's best interest.



Standard  
F.11

Audiologists must provide thorough patient education, training, and counselling regarding hearing aids and hearing aid use.

Patients and/or the SDMs need to understand how to use, care for, and maintain the hearing aids, including special features and accessories. Such orientation may include but is not limited to:

- insertion and removal of instruments
- battery use and testing
- usage patterns
- manipulation of remote controls and/or access to multiple programs

- telephone use
- assistive listening device coupling
- routine maintenance, safe storage, warranty information
- acclimatization to new hearing aids

In addition to the orientation to the device it is essential to provide education and support in order to develop and establish effective strategies in various listening situations. Furthermore, Audiologists must counsel the patient and SDM in order to set appropriate expectations for hearing aid use.

In situations where the patient is seen by more than one audiologist, it is expected that the audiologists will collaborate to ensure that the necessary education, training, and counselling is provided. Further direction can be found in the [Position Statement on Concurrent Intervention Provided by CASLPO Members](#).

Audiologists need to ensure that careful consideration is given to meeting the needs of vulnerable patients who may have difficulty understanding information and recommendations. Vulnerable patients often require the assistance of a parent/guardian/SDM or other person such as a personal support worker. In these instances the member must ensure the appropriate education, training and counselling includes these individuals.

## 5. VERIFICATION



### **Verification**

*The measurement of the performance of the hearing aids relative to the prescribed settings.*

The purpose of verification is to ensure that the hearing aids meet a set of standards and that output values are within safe and comfortable limits. Those standards include comfort of fit of the hearing aids; both physical and with respect to sound quality, and that the hearing aids perform to the prescribed settings using appropriate verification methods.

### COMPETENCIES FOR VERIFYING HEARING AIDS

Audiologists must demonstrate knowledge, skill, and judgement in order to:

- Ensure the performance of the hearing aids meets the patient’s goals for improved hearing and/or communication
- Evaluate the comfort of hearing aids with respect to physical fit and sound quality and make any necessary modifications
- Perform and interpret real-ear measurements
- Recognize when the hearing aids are not meeting the prescriptive targets and make the necessary changes
- Recognize device limitations and counsel the patient appropriately based on verification outcomes

In addition to the competencies indicated above, audiologists must demonstrate competencies included under the Prescribing and Dispensing and Fitting sections of this document.

## PROCEDURES FOR VERIFYING HEARING AIDS



Standard  
F.12

Audiologists must take reasonable steps to verify the hearing aid settings.

Audiologists must determine that the hearing aids provide the prescribed performance characteristics (e.g. meet targets) for the patient by means of an appropriate verification procedure. Real ear measurements, including real ear to coupler difference (RECD) measurements, are the preferred method for verifying and optimizing the electroacoustic characteristics of the hearing aid fitting. This should occur prior to the patient using the hearing aids.



Standard  
F.13

Audiologists must ensure comfort of the hearing aids with respect to their sound quality.

The audiologist must assess the patient's level of comfort with the sound quality of the hearing aids. This may include:

- overall loudness
- naturalness of speech (e.g. harsh, sharp, metallic)
- the patient's own voice (e.g. occlusion effect, loudness, other characteristics)
- balance between the two ears



Standard  
F.14

Audiologists must inform the patient regarding the importance of verification and make reasonable efforts to ensure they make arrangements to do so.

If the audiologist who is prescribing is not dispensing the hearing aids and cannot ensure that the dispensing, fitting and verification will be completed appropriately, the member is expected to outline for the patient the necessity and purpose of these follow-up services and document that this information has been provided.

## 6. VALIDATION



### **Validation**

*The measurement of patient benefit and satisfaction with hearing aids using formal or informal scales, questionnaires, and/or interview forms.*



Standard  
F.15

Audiologists must take reasonable steps to validate the hearing aid fitting.

### COMPETENCIES FOR VALIDATING HEARING AID FITTINGS

Audiologists must demonstrate knowledge, skill, and judgement in order to:

- Solicit relevant information from the patient regarding functional use of the hearing aids
- Engage the patient in a discussion regarding their perceived benefit and satisfaction with their hearing aids
- Identify and select the appropriate tools available to measure benefit and satisfaction relative to the patient's established goals for improved hearing and/or communication
- Provide appropriate levels of assistance to those caring for recipients of the hearing aids so they may accurately identify benefit and satisfaction
- Interpret the results in order to identify modifications that may improve benefit and satisfaction with hearing aids

### PROCEDURES FOR VALIDATING HEARING AID FITTINGS

The audiologist must engage the patient and/or SDM in a discussion about the hearing aids and select the most appropriate measures in order to assess hearing aid benefit and satisfaction. This should be accomplished using validation tools and outcome measures such as questionnaires, scales, and interview forms.



Standard  
F.16

Audiologists must inform the patient regarding the importance of validation and make reasonable efforts to ensure they make arrangements to do so.

The audiologist must make reasonable efforts to arrange a follow-up appointment as soon as is reasonably possible for validation of the hearing aids. In instances where this is not possible, the member is expected to outline for the patient the necessity of and purpose of follow-up services and document that this information has been provided.

## 7. FOLLOW-UP CARE

Once the patient begins using the hearing aids, ongoing support is required to ensure their successful use.

### COMPETENCIES FOR FOLLOW-UP CARE

Audiologists must demonstrate knowledge, skill, and judgement in order to:

- Make modifications to the physical fit of the hearing aids
- Re-program the hearing aids
- Repair the hearing aids
- Educate on use, care, and maintenance of their hearing aids
- Determine if new hearing aids or different hearing aid are required
- Re-assess and understand the impact of the patient's hearing and/or communication needs on their quality of life in order to determine the benefit of assistive listening devices, alerting devices, and communication strategies intervention
- Systematically troubleshoot issues that arise

### PROCEDURES FOR FOLLOW-UP CARE



Standard  
F.17

Audiologists must make reasonable attempts to provide follow-up hearing aid service to patients to ensure ongoing successful hearing aid use.

Aspects of follow-up services may include, but are not limited to:

- Counselling regarding the nature of the patient's hearing and/or communication difficulties and how they will be affected by various environments and listening situations
- Counselling regarding the use of effective communication strategies in various listening situations
- Setting appropriate expectations for hearing aids with respect to how they can improve hearing and/or communication in various listening situations
- Counselling regarding acclimatization to the hearing aids
- Providing ongoing monitoring of hearing aid performance to ensure the hearing aids are providing appropriate benefit to the patient

- Providing ongoing monitoring of the physical fit of the hearing aids or earmolds and making any necessary modifications
- Adjusting hearing aids or making other modifications affecting sound quality and physical fit
- Supporting the maintenance and use of hearing aids (e.g. cleaning, providing supplies)
- Providing additional interventions, such as aural (re)habilitation
- Communicating with others involved in the patient's care
- Assessing the need for additional assistive and alerting devices
- Counselling regarding the importance of ongoing hearing assessments
- Monitoring of hearing sensitivity

## G) GLOSSARY

### ASSESSMENT

The use of both standardized and non-standardized measures to observe and record a person's hearing, balance and/or communication functioning. This is done in order to gain an understanding of a patient's strengths and weaknesses so as to allow the audiologist to make an evaluation statement and plan a treatment program.

### AUDITORY BRAINSTEM RESPONSE/AUDITORY EVOKED POTENTIAL

Both terms refer to a method of testing hearing indirectly and without requiring behavioural responses from the patient. Sound is presented through the ear and the resulting electrical activity along the auditory pathway is measured.

### AURAL (RE)HABILITATION

Intervention aimed at minimizing and alleviating the communication difficulties associated with hearing loss; may include a combination of amplification, counselling, communication strategies training, speech perception training, family instruction, speech-language therapy, and educational management

### BONE CONDUCTION HEARING AID

A hearing aid containing a vibrator or oscillator that is used to transmit sound into the inner ear via the bones of the skull by means of vibration

### CERUMEN MANAGEMENT

Removal of ear wax from the ear canal

### COCHLEAR IMPLANT

Hearing device consisting of two main components: an internal component which is surgically implanted into the cochlea and an external component which picks up sounds and delivers it to the internal implant.

### COUNSELLING

Activities and behaviours that educate and support patients and/or SDM and their families who experience emotional distress related to hearing loss and resulting communication disorders. Counselling activities may include measures that reduce anxiety related to specific situations or helping a patient accept their hearing loss

### DIRECT AUDIO INPUT (DAI)

A feature of some hearing aids that allows an external sound source (e.g. T.V.) to bypass the hearing aid microphone and directly connect to the hearing aid

### DIRECTIONAL MICROPHONE

Microphone configuration that is more sensitive to sound originating from a specific location as opposed to sounds originating from all locations

### DISPENSING

The act of providing the prescribed hearing aid(s) to the patient in good working order

Prescribing

### EARMOLD

A device that fits into the ear and directs sound from a listening device (such as a hearing aid) to the ear canal

### FITTING

The act of ensuring the hearing aids are appropriately fitted physically and are set in alignment with the fitting formula.

### FITTING FORMULA

Formula used to calculate the desired response of a hearing aid.

### GAIN

The difference in decibels between the input level and the output level of an acoustic signal processed through the hearing aid.

### HEARING AID

Customized electronic device fitted to the ear and designed to amplify and deliver sound to the ear.

### IMPRESSION

Cast made of the ear and ear canal for the purposes of creating an earmold for hearing aids or for creating other customized devices (e.g. swim plugs, custom ear buds, noise plugs).

## INTERVENTION

Intervention includes screening, assessment, treatment, management, consultation, education and counselling.

## MANAGEMENT

Management includes treatment, monitoring, follow up, counselling, education and discharge planning.

## OTOSCOPE

Instrument with magnification and a light for visual examination of the pinna, external ear canal and tympanic membrane

## PRESCRIBING

The act of issuing a prescription for the dispensing of a specific hearing aid for an individual based on a comprehensive evaluation

## PRESCRIPTION

The documented directive, given by an audiologist specifying the hearing aid to be dispensed to an individual

## PRESCRIPTIVE FITTING FORMULA

See: Fitting Formula

## PRESCRIPTIVE TARGETS

Gain and frequency response characteristics of a hearing aid that are governed by a fitting formula

## REAL EAR MEASURES

Measurement of sound levels in the ear using a measuring device in the ear canal

## REAL EAR TO COUPLER DIFFERENCE

Measurement that compares the real-ear sound levels, measured by a probe microphone for a given test signal, to the sound levels measured in an acoustic coupler for the same test signal across frequencies.

## SCREENING

Screening is a process where a member applies certain measures that are designed to identify patients who may have a hearing, balance, communication, swallowing or similar disorder[s], for the sole purpose of determining the patient's need for a speech-language pathology assessment, an audiological assessment, or both. This does not include:

- Inadvertently noticing possible stuttering, hearing, balance, communication, swallowing or similar disorder[s], or
- Considering information that is shared about an individual's possible stuttering, hearing, balance, communication, swallowing or similar disorder[s], for the purpose of providing general educational information and/or recommending a referral for a speech-language pathology screening or assessment, an audiological screening or assessment, or both.

## TELECOIL (T coil)

Induction coil in a hearing aid that receives electromagnetic signals from a telephone or other device (?)

## VALIDATION

The measurement of patient benefit and satisfaction with hearing aids using formal or informal scales, questionnaires, and/or interview forms.

## VENT & VENTING

Passage through an earmold or custom hearing aid or other device that permits air into the ear canal; used for aeration of the ear canal and/or for acoustic modification of the sound going into the ear.

## VERIFICATION

The measurement of the performance of the hearing aids relative to the prescribed settings.

# H) APPENDIX A: INFECTION PREVENTION AND CONTROL GUIDELINES FOR AUDIOLOGY

**Table 2, 3, 4 from [Infection Prevention and Control Guidelines for Audiology](#) (2010)**

Situation	Infection Control Strategy (escalating from least to most invasive)
Routine Client Care No physical contact Communication with client >1 metre away	<i>Routine Precautions</i> <ul style="list-style-type: none"> <li>➤ Hand washing</li> <li>➤ Respiratory etiquette (cover mouth nose when coughing or sneezing, followed by proper hand washing)</li> </ul>
Physical Contact with client intact skin	<i>Contact Precautions</i> <ul style="list-style-type: none"> <li>➤ Hand washing</li> </ul>
Physical contact with client, <u>you or client</u> has infected or open wound, non-intact skin, no respiratory concerns	<i>Contact Precautions</i> <ul style="list-style-type: none"> <li>➤ Hand washing</li> <li>➤ Gloves</li> <li>➤ Proper removal and disposal of gloves followed by hand washing</li> </ul>
Contact with client, procedure may involve body fluids, splashing (droplets)	<i>Droplet Precautions</i> <ul style="list-style-type: none"> <li>➤ Hand washing</li> <li>➤ Use professional judgment: <ul style="list-style-type: none"> <li>Gloves</li> <li>Surgical Mask</li> <li>Eye protectors</li> <li>Gowns</li> </ul> </li> <li>➤ Proper removal and disposal of PPE followed by hand washing</li> </ul>
Close contact with client, respiratory symptoms	<i>Droplet Precautions</i> <ul style="list-style-type: none"> <li>➤ Hand washing</li> <li>➤ Respiratory etiquette</li> <li>➤ Use professional judgment: <ul style="list-style-type: none"> <li>Gloves</li> <li>Surgical mask for you and/or your client</li> <li>Eye protectors</li> </ul> </li> </ul>
Close contact with client, fever and respiratory symptoms	<i>Droplet Precautions</i> <ul style="list-style-type: none"> <li>➤ Hand washing</li> <li>➤ Respiratory etiquette</li> <li>➤ Use professional judgment: <ul style="list-style-type: none"> <li>Gloves</li> <li>Surgical mask for you and/or your client</li> <li>Eye protectors</li> </ul> </li> <li>➤ Follow health alerts if applicable</li> </ul>
Contact with client with known airborne infection e.g., active TB	<i>Airborne Precautions</i> <ul style="list-style-type: none"> <li>➤ Droplet Precautions with fit-tested mask</li> <li>➤ Proper ventilation</li> </ul>
Health Alert in effect	Follow Ministry of Health Directives

\*\*In audiology, the practice environment may dictate the infection control strategy used in a given situation. For example, close contact with a client who has fever and/or respiratory symptoms in an acute care setting may necessitate the use of PPE.

In a school or community clinic environment, PPE may be less accessible. Standard practice in these types of environments would involve re-scheduling of a client appointment until such a time as symptoms have disappeared.

**Table 3: The Spaulding Classification**

Category	Level of Processing/Reprocessing	Examples
<b>Critical</b> ➤ Items that enter sterile tissue, including the vascular system.	Cleaning followed by Sterilization	➤ Generally not applicable to audiology practice.
<b>Semi Critical</b> ➤ Items that come in contact with non-intact skin or mucous membranes but do not penetrate them. ➤ Items that contact cerumen are considered semi-critical due to potential contamination with blood and body fluids.	Sterilization or Disposable/Single Use is preferred. Cleaning followed by High Level Disinfection (HLD) as a minimum.	Any item entering the ear canal: Insert earphone, impedance probe tips, curettes and other cerumen equipment, otoscope tips, probe tubes.
<b>Non-critical</b> ➤ Items that contact only intact skin or do not directly touch the client.	Cleaning followed by Low Level Disinfection (LLD)	Insert earphones (exclusive of foam tip), bone conduction oscillator, patient response button, listening stethoscope

**Table 4: Cleaning and Disinfection Check List for Environmental Surfaces/General Housekeeping**

Practice Considerations	What to Use	Recommendations
<ul style="list-style-type: none"> <li>▪ Floors</li> <li>▪ Sinks</li> <li>▪ Desks or countertops</li> <li>▪ Storage shelves and bins</li> <li>▪ Telephones, computers, credit card reader</li> <li>▪ Washrooms (public and staff)</li> <li>▪ Fitting/repair rooms</li> <li>▪ Sound suites</li> <li>▪ Toys used for assessment</li> </ul>	*Cleaning usually involves soap and water, detergents or enzymatic agents to physically remove soil, dust or foreign material. *Low Level Disinfection: Quaternary Ammonium Compounds, or Iodophores, or 3% Hydrogen Peroxide, or Diluted Bleach (5mls bleach/500 mls water). Plush toys and reading materials (e.g. magazines, books) which are handled and cannot be laundered, should be discarded.	<ul style="list-style-type: none"> <li>▪ Daily and when visibly soiled</li> <li>▪ Clean high traffic areas more frequently (e.g., reception counter, chair in sound suite)</li> <li>▪ Keep shelves and bins tidy and clean, dust free</li> <li>▪ Following use or prior to use if suspected contamination</li> <li>▪ Care must be taken to ensure residues from the cleaning process itself (e.g., detergents, solvents, etc.) are also removed from equipment.</li> <li>▪ Consider laminating paper material used by patients repeatedly during intervention so that it can be wiped with disinfectant.)</li> </ul>

# I) FREQUENTLY ASKED QUESTIONS

## Question 1:

I recently assessed a developmentally delayed child and was unable to complete a standard audiological assessment. Consequently, I do not have an audiogram but I do have other audiometric information that I feel allows me to prescribe a hearing aid. Can I generate a "prescription" and if so, what do I include in it?

## Answer 1:

Yes, you can generate a prescription. The requirements of a prescription allow for those situations in which, for a variety of reasons, you may have incomplete data. However, you must provide further information such as,

"... other appropriate data from the assessment required for dispensing (e.g. RECD, electrophysiological data) along with any necessary patient-specific information (e.g. unreliable respondent, auditory neuropathy spectrum disorder) from the assessment that would be required for dispensing." (page 21)

In the above scenario, you would provide information regarding the factors that prevented you from obtaining complete data, along with the audiological information that you used to generate the prescription.

## Question 2:

What is considered to be a "reasonable effort" in relationship to socio-cultural factors? I have had some patients whose attire presented a challenge when attempting to accomplish some of the tasks, such as using the headphones, inserting the earmolds, etc. In order to respect my patient's religious expressions that their attire represents should I forego some of these procedures?

## Answer 2:

It is important that you always provide an effective, quality service and at the same time be responsive to your patient. In instances where you may adapt your tasks or materials without undue cost or time, you should make that effort. If there are no adaptations available, or you would need to go to unreasonable lengths to create new materials or approaches for your clinical tasks, then it is advisable that you discuss with the patient what the options are, and what the impact of the choices may be. If the patient decides that they will not remove the particular attire so that you may complete the tasks and procedures, that decision must be respected. If you end up deviating from the standard as a result of your discussions with the patient, then be sure to document what you discussed and why and how you deviated from the standard.

### Question 3:

I have recently had a patient return to me with their hearing aids, which they have been wearing for approximately 2 weeks. I had provided the original prescription but did not dispense the hearing aids. Instead, the patient went to a dispenser closer to their home. The patient cannot remember where or with whom they worked, but they reported that the person did "check to see if the hearing aid was working as expected". Can I rely on this report and assume that verification has occurred?

### Answer 3:

When you are confident that the verification has been conducted according to the standards outlined in the document (e.g. when a member or another health care professional who you know is competent to provide verification has conducted the process), you are not required to repeat this process. However, if you are not confident that the verification process has been conducted appropriately, then you must complete that process to your satisfaction.

### Question 4:

I frequently see patients with hearing profiles that suggest there is a possibility of an underlying neurological condition, for example a sudden onset of hearing loss. I realize I am required to refer them to the appropriate professional, which would either be an otolaryngologist or a neurologist, however, I am unable to make direct referrals to specialist physicians within the Ontario health care framework. Does this potentially put me in a position of professional misconduct because I am not meeting the Standard E4 in this document?

### Answer 4:

No, you would not be in a position of professional misconduct because you are unable to make a direct referral to a specialist. You cannot be held responsible for the framework of the Ontario health care system, which prevents you from making direct referrals to specialists. You are however, responsible for working within the framework to facilitate such a referral. This may be achieved by referring your patient to their family physician with the recommendation and rationale for requesting that the family physician make such a referral.

### Question 5:

My employer, who is not a member of CASLPO, has set a policy whereby the audiologists are prohibited from providing the patient with a prescription. The rationale is that the company will lose the opportunity to sell the patient a hearing aid if needed. This makes sense from the business perspective, as the company does not charge for the entire assessment so if the patient takes the prescription and purchases the hearing aids elsewhere, my employer has invested manpower resources, but loses the opportunity to recuperate the investment. Can I abide by this policy?

#### Answer 5:

Employers may set their own requirements for their employees, however, you still must adhere to the minimum standards set by CASLPO. If you are developing the prescription, it "... must communicate the necessary information in order to direct the accurate dispensing and fitting of the intended hearing aids." (Standard H4). Furthermore, if you are communicating this information to a third party (e.g. the patient would like to purchase the hearing aid elsewhere and/or the patient wants the prescription), then the prescription also must be in a consolidated format and include the following additional information:

- member's name
- member's contact information
- member's CASLPO registration number
- member's signature

It is expected that you would inform your employer of the standards you must meet and establish a method by which you can do so. CASLPO is happy to support you in these efforts.

#### Question 6:

I work for a hospital where I provide hearing assessments and prescriptions but do not dispense the hearing aids. I realize I must provide the third party who is dispensing the hearing aids an accessible, consolidated hearing aid prescription. In situations where I feel it is imperative that the patient come back to me for the fitting and verification, can I ask the audiologist who is dispensing to not fit the hearing aids?

#### Answer 6:

You may wish to convey to your patient to return to you and you may request the audiologist dispensing the hearing aids to convey to the patient that they should return to you. Ultimately, it is the patient's choice as to what they will do. In order to mitigate risk and to ensure quality care, the College, requires any audiologist who is dispensing the hearing aids to adhere to the standards of practice set out in this document. Specifically, those related to dispensing hearing aids include but are not limited to the following:

Standard H8: Audiologists must ensure that the physical fit of the hearing aids is appropriate.

Standard H9: Audiologists dispensing and fitting hearing aids must ensure that the hearing aids are programmed using a fitting formula or approach that is appropriate for the patient.

Standard H11: Audiologists must take reasonable steps to verify the hearing aid settings.

Standard H14: Audiologists must inform the patient regarding the importance of verification and validation and make reasonable efforts to ensure they make arrangements to do so.

It should also be noted that if in the process of dispensing the audiologist feels it is appropriate to change the prescription, then it is also a requirement that they make reasonable efforts to contact you to discuss the changes and determine if the changes are in the best interests of the patient.

#### Question 7:

My patients routinely access third party funding to assist with the costs of their hearing aids. Many of these funders, such as the Assistive Device Program (ADP) and the Workplace Safety and Insurance Board (WSIB), have requirements that differ from the College requirements. Which set of requirements must I meet?

#### Answer 7:

The simple answer is you must always meet the standards set out by the College. If the funding body has additional standards, then in order for your patient to receive the funding, you must also meet those standards. However, sometimes, the funder has requirements that fall short of the College's. For example, an ADP application form, in and of itself, fails to satisfy the College's requirements for a prescription. Similarly, WSIB has a validation questionnaire that may not address all the areas this document identifies when completing the process of validation. It is expected that audiologists will apply their professional knowledge, skill and judgement to determine the gaps between any third party funder's requirements and the College requirements and ensure, first and foremost, that they meet all the College requirements.

#### Question 8:

Recently, I have noticed that certain products I have used for many years have new labels indicating "single use", although nothing else appears to be different about the product. Up until this time, I have applied rigorous disinfection procedures so that I can reuse them. Must I now dispose of these items after each use, even if I am reusing them with the same patient?

#### Answer 8:

When manufacturers' specifications indicate "single use", generally, you should not disinfect for reuse, regardless of whether it is with the same or different patients. The manufacturer may have a variety of reasons for applying the "single use" label. For example, they may have changed the physical properties in such a manner that disinfection is no longer effective. If you are considering reusing any items that are labelled "single use", you must exercise extreme caution. It is your professional responsibility to determine if your disinfection procedures are effective for a particular product in a particular situation and you must be prepared to justify that decision with current, concrete evidence. Typically, this is very difficult to achieve so we recommend not reusing single use items.

#### Question 9:

I work in a clinic in which there are several audiologists and we occasionally will share patient interventions due to scheduling needs, absences, etc. How do I know if the previous audiologist has completed the prescribing process?

#### Answer 9:

Regardless of whether patient records are shared or not, all members are required to ensure the patient record is complete and accurate. Further, the definition of a prescription speaks to documentation (see page 20):

*“The documented directive, given by an audiologist, specifying the hearing aid to be dispensed to an individual.”*

Therefore, it is incumbent upon any audiologist who has completed the prescribing process to document that in some manner in the patient record. The documentation may be as simple as “Prescribed XX hearing aids. See details in record”. If there is no documented directive, the audiologist must apply their professional judgement. They must consider the given information in the patient record, determine if they are able to provide a prescription and document this in the patient record.

#### Question 10:

My patient has a limited budget for hearing aids but based on my assessment of needs, the hearing aids I would recommend are beyond the patient’s ability to pay. Do I recommend a product that I do not believe is ideal in order to accommodate the financial constraints?

#### Answer 10:

Determining the patient’s needs includes considering their financial situation. In fact, one of the required competencies for prescribing is the demonstration of the knowledge, skill, and judgement in order to:

*“Map the patient’s hearing and/or communication needs to the level of technology that would best meet the goals given the patient’s financial considerations” (page 19)*

It is your responsibility to find a solution that accommodates the financial needs as well as all other needs. This process must include collaboration with the patient. It is important to explain to the patient how your recommendations for hearing aids relate to all their needs. This includes informing the patient of all the benefits and drawbacks of each option, and how these relate to pricing. Similarly, you must not assume that patients with unlimited financial resources may wish to have the most expensive hearing aids. Again, your recommendations must map all the needs of the patient to the level of technology.

#### Question 11:

Occasionally, at my agency I do not perform the entire assessment because another non-audiologist has provided me with some of the data, including an audiogram. I do not supervise this person and they are not considered my support personnel. Can I

use the assessment data to generate a prescription? Similarly, at times, someone else may end up dispensing and fitting the hearing aids that I have prescribed and that individual may not be an audiologist. Can I rely on that other professional to dispense and fit the hearing aids?

Answer 11:

You may use the assessment data already generated provided you are confident the data is accurate. However, you cannot merely take assessment data and prescribe hearing aids without direct contact with the patient in order to thoroughly understand their needs, capabilities and goals as part of the full assessment. The Code of Ethics states that the member:

4.2.5 shall ensure that the primary assessment/treatment/consultation with patients/clients will be a face-to-face or other professionally appropriate encounter;

In addition, you as the audiologist must be the one to determine the specific hearing aids to be prescribed and you cannot rely on any recommendations regarding the specific hearing aids made by the non-audiologist. Standard H4 addresses this, stating:

“Audiologists must determine the specific hearing aid based on a comprehensive evaluation in order to issue a prescription.”

So for example, it would not be appropriate for the audiologist to simply sign a form that contains the specific hearing aids that are recommended. The audiologist “must determine the specific hearing aid”. Also be reminded that you have requirements regarding documentation, including, documenting what you have prescribed.

With regard to dispensing and fitting, again, you must be confident that it was performed thoroughly, otherwise, you should perform this function yourself or if that is not possible, encourage the patient to see someone who you are confident will do an adequate job.

When considering your level of confidence in other professionals providing aspects of hearing aid services, it is reasonable to have confidence in another audiologist, given they are regulated and required to meet practice standards (unless, of course, you have a reason to think otherwise). Your confidence in a non-audiologist performing aspects of the hearing services would be guided by your professional judgement.