PRACTICE STANDARDS AND GUIDELINES (PSG) FOR PROVISION OF HEARING AID SERVICES BY AUDIOLOGISTS
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EXECUTIVE SUMMARY

This document serves to outline the standards of practice for all Audiologists in Ontario when providing hearing aid services. Audiologists must have the knowledge, competencies, and resources for the provision of hearing aids, which is within their scope of practice. This includes determining candidacy for hearing aids, identifying the appropriate hearing aids based on the patient’s needs, the controlled act of prescribing a hearing aid, dispensing the hearing aids, verifying that the hearing aids are performing as intended, validating that the patient is obtaining the maximum benefit, as well as providing ongoing counselling and support to the hearing aid user. Throughout the process, the audiologist must provide the patient and/or Substitute Decision Maker (SDM) with information, act as a resource, and provide them the opportunity to make informed decisions regarding the intervention. Audiologists must also provide services that are respectful and responsive to the cultural needs of patients and families. Finally, all the required components in the provision of hearing aid services must be documented.

Note: This PSG not only outlines standards related to prescribing hearing aids it also defines specific activities which will be highlighted in grey boxes in the text.

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1 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.
A) PREAMBLE

Practice Standards and Guidelines (PSGs) are necessary to ensure quality care to the people of Ontario who require hearing health care. This document is based on the philosophy that the provision of hearing aid services is a continuum, which includes prescription, dispensing, fitting, verification and validation of hearing aids and follow-up care. This philosophy assumes that audiologists have the necessary knowledge and skills to provide all components of this continuum. This guideline is meant to be used as a decision-making framework; it is not intended to be a tutorial or to provide audiologists with all the information required to perform hearing aid prescription and dispensing.

Audiologists are ethically responsible to ensure they possess the competencies to prescribe and dispense hearing aids and to ensure that their patients are safe during the provision of these services (Code of Ethics 4.2.3 2011). When audiologists judge that they do not have the required knowledge, skill and judgment to provide intervention, they are encouraged to consult with and/or refer to audiologists or other healthcare providers with the required competencies.

This PSG incorporates both “must” and “should” statements. “Must” statements establish standards that members are required to follow. In some cases, “must” statements have been established in legislation and/or other CASLPO documents. In other cases, the “must” statements describe standards that are established for the first time in this PSG. “Should” statements incorporated into this PSG describe best practices. To the greatest extent possible, members should follow these practice standards and guidelines.

Audiologists must exercise professional judgment, taking into account the environment(s) and the individual patient’s needs when considering deviating from these standards and guidelines. Audiologists must document and be prepared to justify any departures from the PSG.

Throughout the PSG, the term hearing aids and/or devices (in plural) will be used to indicate a binaural fitting, acknowledging, however, that there will be occasions when only one hearing aid or device will be prescribed and dispensed, as per the patient need determined by the audiologist, in consultation with the patient.
B) DEFINITION OF SERVICE

The provision of hearing aids 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 and the provision of ongoing support and follow up to patients who wear hearing aids.

For the purposes of this PSG, "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 PSG 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 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.

PHILOSOPHY OF SERVICE

The philosophy of service to patients is intended to be consistent with the World Health Organization’s (WHO) International Classification of Functioning, Disability and Health (ICF) (2001). The ICF offers healthcare providers an internationally-recognized conceptual framework and common language for discussing and describing human functioning and disability. This framework is used to describe the role of audiologists in optimizing individuals’ ability to hear and communicate, and thus improve their quality of life. The categories of this classification system are be applied to hearing-impairment as follows:

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Definition</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impairment</td>
<td>Problems in body structures and/or body functions such as significant deviation or loss</td>
<td>Inability to hear due to reduced or impaired hearing sensitivity, frequency resolution, temporal resolution, etc. due to damage to the structures and/or functions of the hearing mechanism</td>
</tr>
<tr>
<td>Activity/Participation</td>
<td>Aspects of functioning from an individual or societal perspective</td>
<td>Difficulty understanding speech in quiet and in noise; understanding conversation on the telephone; hearing environmental sounds; communicating in social, employment, and educational, contexts etc.</td>
</tr>
<tr>
<td>Contextual Environmental Factors</td>
<td>Factors that impact disability ranging from the individual’s immediate</td>
<td>Difficulty hearing and understanding speech as a result of poor signal to noise ratio, distance between listener and speaker, poor lighting,</td>
</tr>
</tbody>
</table>

International Classification of Functioning (IFC)
| Contextual Factors | Individual factors that influence performance in the environment | Personal factors such as age, gender, lifestyle, education, finances, race/ethnicity, cultural beliefs, social background, profession, past experiences, coping strategies, comorbidity, self-advocacy, adjustment to disability, motivation, etc. |

Services offered to individuals with hearing impairment by audiologists encompass all components and factors identified in the WHO framework. Audiologists work to improve quality of life by reducing impairments to communication, reducing limitations to activity and participation, and/or modifying the environmental barriers of the individuals they serve.
C) SCOPE OF PRACTICE

The *Audiology and Speech-language Pathology Act, 1991* states:

“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*, it is a controlled act in Ontario to prescribe a hearing aid for a hearing impaired person (Controlled Act No. 10).

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

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
- 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

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 outlined in the Position Statement on Equipment Servicing Requirements by Audiologists and 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.

Audiologists must ensure that the physical environment is appropriate for screening, assessment and management.
Audiologists must make every effort to ensure that the physical environments are appropriate for the provision of hearing aid services including the acoustic environment, safety, accessibility, and privacy. For example, certain standardized assessments may require quiet, one-on-one settings; certain real world intervention techniques may require the context to be similar to that usually experienced by the individual.

It is acknowledged that the quality of environments for intervention will be influenced by a variety of factors. However, when the quality is less than ideal, audiologists must provide clear and concise documentation in the patient’s file as to why and the impact of the environment on the intervention outcome.
### E) COLLABORATION REQUIREMENTS

<table>
<thead>
<tr>
<th>Standard E.1</th>
<th>Audiologists must communicate effectively and collaboratively with the patient and others who are involved with the patient, with appropriate consent.</th>
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</table>

Hearing aid provision is an ongoing process requiring the participation of the audiologist, patient or SDM, family, caregivers, other healthcare professionals, education teams, and significant others.

Collaboration between members, with other health professionals, and with significant others is particularly important when treating patients who may have difficulty understanding, remembering information and carrying out recommendations (e.g. children, individuals with language and/or cognitive impairments). Audiologists must attempt to communicate with persons involved with the patient in order to maximize the effectiveness of the intervention.

Consent is required when communicating with others involved with the patient or his/her SDM, as indicated in CASLPO’s [Professional Misconduct Regulation](#) and the [Personal Health Information Protection Act (PHIPA), 2004](#).

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<tr>
<th>Standard E.2</th>
<th>Audiologists must determine if concurrent intervention, when it arises, is in the best interests of the patient.</th>
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Frequently, a patient may be seen by more than one audiologist in the process of hearing aid provision. For example, the audiologist who prescribes the hearing aids may not be the same audiologist who dispenses the hearing aids. When concurrent intervention (two or more CASLPO members) takes place, it must be determined to be in the best interests of the patient, as indicated by the Position Statement [Concurrent Intervention Provided by CASLPO Members](#). In these situations, the following should occur:

- Ensure that the different approaches are complementary and in the best interests of the patient.
- Coordinate management with other audiologists and/or other health professionals simultaneously on different aspects of hearing aid provision.

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<tr>
<th>Standard E.3</th>
<th>Audiologists must make reasonable attempts to resolve disagreements with service providers involved in the patient care.</th>
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Should disagreements arise between professionals involved in the care of a patient, CASLPO members must make reasonable attempts to resolve the disagreement directly with the other professional, and take such actions as are in the best interests of the patient. In these circumstances, the standards contained in the Position Statement on Resolving Disagreements between Service Providers and/or Changing Hearing Aid Prescriptions provide specific direction.

The audiologist’s assessment results may identify other medical concerns (e.g. retrocochlear pathology) and/or other co-occurring issues such as cognitive functioning, mobility, balance, pain control, vision, and nutrition. The member must refer, or advocate for referral, to the most appropriate health professional.

For some patients, there are additional areas of concern, such as, psychosocial functioning, behaviour or family issues. The audiologist must recommend involvement of appropriate professionals.

Community resources such as support/consumer groups should also be considered for the patient and/or family members to obtain additional information and support. Audiologists must recommend referral to other funded services when appropriate (e.g. infant hearing program, cochlear implant centre).
F) HEALTH AND SAFETY PRECAUTIONS

| Standard F.1 | Audiolists must employ current practices for infection prevention and control. |

All intervention procedures must ensure the safety of the patient and audiologist, and must adhere to current infection control practices, as indicated in the *Infection Prevention and Control Guidelines for Audiology* as well as additional precautions where specified by the practice setting or other service providers.

Audiologists must ensure that all equipment used is disinfected/sanitized in accordance with the *Infection Prevention and Control Guidelines for Audiology*.

A summary of information can be found in the charts provided in the *Infection Prevention and Control Guidelines for Audiology* and have been attached in Appendix A of this document.
G) PRINCIPLES GUIDING SERVICE DELIVERY

1. PRINCIPLES OF CULTURALLY APPROPRIATE INTERVENTION

Audiologists must be knowledgeable about culturally diverse populations and be responsive to the patient’s and family’s culture in all phases of intervention.

Audiologists must attempt to provide services that are respectful and responsive to the patient’s and family’s linguistic and cultural background and the sociocultural factors that affect communication as discussed in CASLPO’s Position Statement on Service Delivery to Culturally and Linguistically Diverse Populations.

Audiologists must be aware that socio-cultural factors such as race, ethnicity, customs, age, disability, gender, sexuality and religion may affect screening, assessment, management, communication and therapy relationships and must incorporate this knowledge into the patient’s communication intervention. Equally, the audiologist must not make assumptions about a patient based on their cultural background or other factors. Each patient is unique and should be treated accordingly. Service provision and collaboration must allow the patient a choice that is fully informed and based on unbiased culturally relevant information.

2. PRINCIPLES OF EVIDENCE-BASED PRACTICE

Audiologists must use evidence-based practice principles in their intervention.

Evidence-based practice has been defined as “the integration of best research evidence with clinical expertise and patient values.” (Sackett D et al., 2000).
Audiologists’ primary ethical obligation is to practice their skills for the benefit of their patients (Code of Ethics 3.1 2011). Evidence-based practice must be patient centered. The member should interpret best current evidence from research combined with the member’s clinical knowledge and relate it to the patient, including their preferences, environment, culture, and values.

3. CONSENT

CONSENT TO COLLECT, USE, DISCLOSE AND RETAIN PERSONAL HEALTH INFORMATION

Audiologists must obtain knowledgeable consent from the patient or SDM for the collection, use, disclosure and retention of personal health information.

The Personal Health Information and Protection Act (PHIPA), 2004, requires members to obtain knowledgeable consent for the collection, use and disclosure of any personal health information obtained during screening, assessment and management. All consent must be documented. It can be obtained in written format or verbally.

Agencies may have various procedures for obtaining consent for the collection, use and disclosure of information. These may be used if they comply with the PHIPA, 2004, and CASLPO requirements.

The Information and Privacy Commission of Ontario has outlined the criteria whereby members can rely on assumed implied consent to collect, use and disclose personal health information. This is known as the ‘Circle of Care’.

All of the following six criteria must apply:

1. The Health Information Custodian (HIC) is entitled to rely on assumed implied consent. Audiologists are considered HICs.
2. The personal health information must have been received from the individual, SDM or another HIC
3. The personal health information was collected, used and disclosed for the purposes of providing health care
4. The HIC must use the personal health information for the purposes of providing health care, not research or fundraising
5. Disclosure of personal health information from one HIC must be to another HIC
6. The receiving HIC must not be aware that the individual has expressly withheld or withdrawn consent

Consent to collect, use and disclose personal health information can be withdrawn in full or in part at any time by the patient or by his/her SDM.

CONSENT TO TREATMENT

Audiologists must obtain valid and informed consent for all interventions

Audiologists must obtain valid and informed consent from the patient or SDM, as indicated in the CASLPO Position Statement on Consent to Provide Screening and Assessment Services for all interventions. Interventions include screening, assessment, and management. Further information on consent, capacity to consent and withdrawal of consent is found in the Consent and Capacity E-Learning Module (Member’s Portal, select Education) and in the document, Obtaining Consent For Services: A Guide For Audiologists And Speech-Language Pathologists.

To obtain informed consent, as defined in the Health Care Consent Act, 1996, it is necessary to provide to the patient the following information:

- the nature of the service
- the expected benefits
- any probable or serious risks and side effects
- alternative courses of action
- likely consequences of not receiving service

Audiologists are reminded that the critical element in obtaining consent is the discussion of the information as described above and not the act of signing a consent form. All consent to perform a screening, assessment or management must be documented.

Consent for screening, assessment and management can be withdrawn at any time by the patient or by their SDM.
CAPACITY TO CONSENT TO TREATMENT

Audiologists must evaluate capacity if the ability of the patient to consent to the audiologist’s services is in doubt.

If the patient’s or SDM’s ability to provide informed consent is in doubt, the audiologist must evaluate the individual’s capacity to consent. Capacity evaluation examines the patient’s or SDM’s ability to understand relevant information and his or her ability to appreciate the reasonably foreseeable consequences of a decision or lack of decision. If the patient is found lacking in capacity to consent, the audiologist must approach the SDM for informed consent. The audiologist must also inform the patient on the process to appeal the finding of incapacity to consent to intervention with the Consent and Capacity Board. Further information regarding consent and capacity is found in Obtaining Consent for Services: A Guide for Audiologists and Speech-Language Pathologists.

Audiologists must document every consent received regarding intervention.

CASLPO requires members to document verbal consent and to maintain any written consents as evidence that the process of obtaining consent was undertaken. The Records Regulation (2015) requires members to document:

32. (2) 14. A record of every consent provided by the patient or by the patient’s authorized representative.

4. PRINCIPLES OF RISK MANAGEMENT DETERMINATION

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. real ear measurements, cerumen management, impression taking)
- Dangers of ingesting batteries
- Risk of further permanent hearing damage due to excessive sound levels

2) Risk of emotional/psychological harm to the patient
Examples:
- Participation in some procedures may increase stress
- 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
- Poor hearing aid fitting resulting in painfully loud sounds puts the patient at risk of discomfort, and of rejecting the hearing aids, even when there is no risk of hearing damage
- Insufficient or inappropriate counselling resulting in poor 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 remedy 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).
H) INTERVENTION: COMPETENCIES AND PROCEDURES

The provision of hearing aids requires a patient-centred approach. Hearing aid intervention must be customized to the specific needs, goals, motivation, and expectations of the patient, ensuring that language, cultural, ethnic, 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 (e.g. hearing assessment - if not previously completed, lifestyle and communication needs assessment)
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

Below is an outline of the competencies and procedures associated with each of the above components of care.

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 issues outside of their scope of practice. Further details are available in the Scope of Practice section of this PSG.

1. DETERMINATION OF HEARING AID CANDIDACY

Audiologists must assess hearing aid candidacy that includes a case history in collaboration with the patient.

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 (guidelines can be found 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), 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 questioned reliability and validity
- Accommodate communication needs, lifestyle and personal factors, as well as level of motivation of the patient
- Consider the patient-specific barriers to successful outcomes with hearing aids
- Determine the potential for obtaining benefit from hearing aids
- Counsel patients so they can make an informed decision regarding the use of hearing aids
- Collaborate with the patient to establish realistic goals for improved communication

PROCEDURES FOR DETERMINING HEARING AID CANDIDACY

The audiologist must collaborate with the patient to evaluate the additional 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 impairment as well as the patient’s speech understanding ability in quiet and in noise (if available). The audiologist must also review the patient’s personal situation, including:

- Lifestyle and environmental factors
- Activities and participation factors
- Cognitive 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
- Consideration of the available/appropriate technologies
- Goals for desired outcome through the use of hearing aids (e.g. improved speech understanding in group conversations)

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”.

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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 impairment and communication challenges on their quality of life (e.g. family and social relationships, participation in social activities, employment, etc.)
- 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 into the prescription by selecting the most appropriate technology and additional devices in order to meet those goals
- Assist patients in setting reasonable expectations regarding the benefits of hearing aids
- Map the patient’s communication challenges to the level of technology that would best suit their needs given the patient’s financial considerations

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 (e.g. custom, behind-the-ear, receiver-in-canal).

PROCEDURES FOR PRESCRIBING HEARING AIDS

The audiologist will gather the relevant assessment data and information obtained during the process of determining hearing aid candidacy. In collaboration with the patient or SDM, the audiologist will help to establish the patient’s goals for improving their hearing and/or communication. The audiologist will counsel the patient or SDM regarding the expected benefits of hearing aids. This should include a discussion regarding levels of technology and

Prescribing is

issuing a prescription for the dispensing of a specific hearing aid for an individual based on a comprehensive evaluation.
associated costs. Participation in this process by family members, caregivers, significant others and involved professionals (e.g., speech-language pathologist, physician, home care nurse, etc.) is strongly encouraged to provide ongoing support for the rehabilitative 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 and vocational needs. The audiologist must consider the patient’s cognitive abilities 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.

<table>
<thead>
<tr>
<th>Prescription is</th>
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<tr>
<td>the documented directive, given by an audiologist specifying the hearing aid to be dispensed to an individual</td>
</tr>
</tbody>
</table>

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
- Performance specifications, when appropriate (fitting formula or approach)
- Audiometric data/or any other appropriate data from the assessment required for dispensing

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

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 and consider their associated risks
PROCEDURES FOR TAKING EAR IMPRESSIONS

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

The general case history may not contain the required information for taking ear impressions. Therefore, the audiologist must ensure to 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.

4. HEARING AID DISPENSING AND FITTING

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 is

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

Fitting is

setting the hearing aids both physically and electroacoustically for the patient
COMPETENCIES FOR DISPENSING AND FITTING HEARING AIDS

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

- 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
- Relate 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 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.

<table>
<thead>
<tr>
<th>Standard H.8</th>
<th>Audiologists must ensure that the physical fit of the hearing aids is appropriate.</th>
</tr>
</thead>
</table>

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

| Guide H.1   | Audiologists should ensure that the hearing aids are working according to manufacturer specifications and match the hearing aids specified on the original prescription. |
Although quality control measures are implemented by the hearing aid manufacturers, the audiologist dispensing and fitting the hearing aids should ensure that the hearing aids meet the manufacturer specifications.

<table>
<thead>
<tr>
<th>Guide H.2</th>
<th>Audiologists should ensure listening checks of the hearing aids are performed throughout the dispensing and fitting process.</th>
</tr>
</thead>
</table>

It is important to perform a subjective listening check to ensure that the sound quality and performance of the hearing aids are satisfactory. The purpose of a listening check would be to detect any problems which may have been missed during a single static measure. These could include excessive circuit noise, intermittency, distortion, and/or any other negative sound impressions. The listening check may also include operation of the volume control, directional microphones, telecoil, and accessories.

<table>
<thead>
<tr>
<th>Standard H.9</th>
<th>Audiologists dispensing and fitting hearing aids must ensure that the hearing aids are programmed using a fitting formula that is appropriate for the patient.</th>
</tr>
</thead>
</table>

Initial settings should be based on a prescriptive fitting formula appropriate for the patient. There are occasions when there will be a prescribing audiologist and a different audiologist will be 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 attempt to contact the prescribing audiologist and obtain their consent to change the prescription. Only an audiologist or physician can change the hearing aid prescription.

<table>
<thead>
<tr>
<th>Standard H.10</th>
<th>Audiologists must provide thorough patient education, training, and counselling regarding hearing aids and hearing aid use.</th>
</tr>
</thead>
</table>

A thorough understanding of how to use, care for, and maintain the hearing aids, including special features and accessories is necessary. Such orientation may include but is not limited to:

- insertion and removal of instruments
- battery use
- usage patterns and adjustment
• manipulation of remote controls and/or access to multiple programs
• telephone use
• assistive listening device coupling
• routine maintenance, safe storage, warranty information

In addition to the orientation to the device it is essential to provide education and support in order to develop and establish effective communication strategies in various listening situations.

Audiologists must counsel the patient and SDM in order to set appropriate expectations for hearing aids including acclimatizing to new hearing aids.

In situations where the patient is seen by more than one audiologist, it is expected that they 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

<table>
<thead>
<tr>
<th>Verification is</th>
</tr>
</thead>
<tbody>
<tr>
<td>the measurement of the performance of the hearing aid relative to the prescribed settings</td>
</tr>
</tbody>
</table>

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 settings 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

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) to the patient by means of an appropriate verification procedure. Real ear measurements are the preferred method for verifying and optimizing the electroacoustic characteristics of the hearing aid fitting. Real ear to coupler difference (RECD) values are included in real ear measures.

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

Verifying hearing aids is essential in order to meet the patient and clinician goals. 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

6. VALIDATION

Validation is the measurement of benefit and satisfaction with hearing aids using formal or informal scales, questionnaires, and/or interview forms
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
- 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 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, aided speech perception testing (in quiet and in noise) and functional gain testing.

Once the patient is wearing the hearing aids, the audiologist must make reasonable efforts to arrange a follow-up appointment as soon as is reasonably possible for verification and 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

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 as required
• Re-program the hearing aids as required
• Repair the hearing aids as required
• Educate patients 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 impairment and communication challenges on their quality of life in order to determine the benefit of assistive listening devices, alerting devices, and communication strategies intervention
• Systematically troubleshoot any issues that arise with the hearing aids

**PROCEDURES FOR FOLLOW-UP CARE**

<table>
<thead>
<tr>
<th>Standard</th>
<th>H.15</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Audiologists must make reasonable attempts to provide follow-up hearing aid service to patients to ensure ongoing successful hearing aid use.</td>
</tr>
</tbody>
</table>

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, particularly with respect to hearing/understanding speech in noise
• Counselling regarding the fact that it may take time to become acclimatized to the hearing aids and the amplification
• 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 (e.g. new impressions, tubing changes)
• Programming adjustments or modifications to sound quality and or physical fit
• Supporting the maintenance and use of hearing aids (e.g. cleaning, batteries, supplies)
• Additional counselling (aural rehabilitation), as determined between the audiologist and the patient or SDM
• Communication with others involved in the patient’s care
• Assessment of need for additional assistive and alerting devices
• Counselling regarding the importance of ongoing hearing assessments
J) DOCUMENTATION

Audiologists must document all aspects of hearing aid service delivery.

All documentation by audiologists regarding hearing aid service delivery must conform to the Records Regulation (2015). The hearing aid prescription must be documented in the patient record in an easily accessible format.

Audiologists must document communication and collaboration with other healthcare, educational, or psychosocial professionals in the planning or delivery of hearing aid services.

Communication and collaboration with other educational, psychosocial or health care professionals in the planning or delivery of hearing aid services must be documented. This would include referrals to other healthcare providers.

INTERPROFESSIONAL RECORDS

Audiologists must, when working with others, take all reasonable steps to ensure that the patient’s records are up to date, accurate and complete.

When working on an interprofessional team, frequently members of the team contribute to a single patient record. Audiologists must, however, take reasonable steps to ensure that the record is up to date and made, used, maintained, retained and disclosed in accordance with CASLPO’s Records Regulation (2015). For further information please refer to the Interprofessional Record Keeping Resource.

Audiologists must ensure that records are securely stored.
Records must be stored securely in accordance with any CASLPO’s [Records Regulation (2015)](https://example.com) and any other relevant legislation, such as the [Personal Health Information Protection Act, 2004](https://example.com). Reasonable steps must be taken to ensure that personal health information in the member’s custody of control is...“protected against theft, loss and unauthorized use or disclosure and to ensure that the records containing the information are protected against unauthorized copying, modification or disposal.” PHIPA 2004, c. 3, Sched. A, s. 12 (1).
K) GLOSSARY

AURAL REHABILITATION
Intervention aimed at minimizing and alleviating the communication difficulties associated with hearing loss; may include 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 is worn on the ear and which picks up sounds and delivers it to the internal implant via electrical stimulation.

COUNSELLING
Activities and behaviours that educate and support patients 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)
Hard-wired connection that leads directly from the sound source to the hearing aid or other listening device.

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

EVIDENCE-BASED PRACTICE
The integration of best research evidence with clinical expertise and patient values

FITTING
Setting the hearing aids both physically and electroacoustically for the patient

FITTING FORMULA
Formula used to calculate the desired response of a hearing aid

GAIN
In hearing aids, the difference in decibels between the input level and the output level of an acoustic signal

HEARING AID
Customized electronic device fitted to the ear and designed to amplify and deliver sound to the ear on a frequency specific basis

IMPRESSION
Cast made of the ear and/or ear canal for the purposes of creating an earmold for a hearing aid or a custom hearing aid

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

PRESCRIBING
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 formula

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

TELECOIL (T coil)
Induction coil in a hearing aid that receives electromagnetic signals from a telephone or loop amplification system

VALIDATION
The measurement of 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 that permits air into the ear canal; used for aeration of the ear canal and/or for acoustic modification of the amplified sound

VERIFICATION
The measurement of the performance of the hearing aid relative to the prescribed settings
L) REFERENCES


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

<table>
<thead>
<tr>
<th>Situation</th>
<th>Infection Control Strategy (escalating from least to most invasive)</th>
</tr>
</thead>
</table>
| Routine Client Care                                                      | *Routine Precautions*  
  ➢ Hand washing  
  ➢ Respiratory etiquette (cover mouth nose when coughing or sneezing, followed by proper hand washing) |
| No physical contact                                                      | Physical Contact with client intact skin  
  ➢ Hand washing                                                                                                                |
| Communication with client >1 metre away                                  | Physical contact with client, you or client has infected or open wound, non-intact skin, no respiratory concerns  
  ➢ Hand washing  
  ➢ Gloves  
  ➢ Proper removal and disposal of gloves followed by hand washing                                                             |
| Contact with client, procedure may involve body fluids, splashing (droplets) | *Droplet Precautions*  
  ➢ Hand washing  
  ➢ Use professional judgment:  
    ➢ Gloves  
    ➢ Surgical Mask  
    ➢ Eye protectors  
    ➢ Gowns  
  ➢ Proper removal and disposal of PPE followed by hand washing                                                                    |
| Close contact with client, respiratory symptoms                          | *Droplet Precautions*  
  ➢ Hand washing  
  ➢ Respiratory etiquette  
  ➢ Use professional judgment:  
    ➢ Gloves  
    ➢ Surgical mask for you and/or your client  
    ➢ Eye protectors                                                                                                           |
| Close contact with client, fever and respiratory symptoms                | *Droplet Precautions*  
  ➢ Hand washing  
  ➢ Respiratory etiquette  
  ➢ Use professional judgment:  
    ➢ Gloves  
    ➢ Surgical mask for you and/or your client  
    ➢ Eye protectors                                                                                                           |
| Contact with client with known airborne infection e.g., active TB         | *Airborne Precautions*  
  ➢ Droplet Precautions with fit-tested mask  
  ➢ Proper ventilation                                                                                                           |
| 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**

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

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

<table>
<thead>
<tr>
<th>Practice Considerations</th>
<th>What to Use</th>
<th>Recommendations</th>
</tr>
</thead>
</table>
| Floors                  | *Cleaning usually involves soap and water, detergents or enzymatic agents to physically remove soil, dust or foreign material. *
                        | *Low Level Disinfection: Quartenary 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. | Daily and when visibly soiled |
| Sinks                   |             | Clean high traffic areas more frequently (e.g., reception counter, chair in sound suite) |
| Desks or countertops    |             | Keep shelves and bins tidy and clean, dust free |
| Storage shelves and bins|             | Following use or prior to use if suspected contamination |
| Telephones, computers, credit card reader |             | Care must be taken to ensure residues from the cleaning process itself (e.g., detergents, solvents, etc.) are also removed from equipment. |
| Washrooms (public and staff) |             | Consider laminating paper material used by patients repeatedly during intervention so that it can be wiped with disinfectant. |
| Fitting/repair rooms    |             |                                                   |
| Sound suites            |             |                                                   |
| Toys used for assessment|             |                                                   |