
Alberta College of
Speech-Language Pathologists
and Audiologists

*Hear. Speak. Connect.*

# Protocol for Audiological Referral to Otolaryngology

**May 2014**

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# Protocol for Audiological Referral to Otolaryngology

*An ACSLPA Protocol sets out precise criteria, activities, and procedures that should be adhered to by regulated members of ACSLPA in the provision of specific professional services. Protocols are founded on evidence-based practice, with the consensus of relevant professional peers.*

## Preamble

The purpose of this document is to provide standard procedures for referral for consultation with otolaryngology or ENT Specialists, for use by ACSLPA registered members.

This information represents the consensus of professional opinion for the appropriate conduct of audiology referrals to otolaryngology at the time the document was produced (May 2014). This document is subject to periodic review and revisions.

Companion documents and references have been attached to assist with the identification of risk factors for conditions associated with the ear and hearing loss and consequent referral to otolaryngology.

A list of abbreviations is available at the end of this document.

## A. Personnel

This Protocol applies to all audiologists registered with the Alberta College of Speech-Language Pathologists and Audiologists (ACSLPA) practicing in the province of Alberta.

## B. Who Should Be Referred for Consultation?

Any client (infant, child or adult) may be referred to the appropriate specialist (i.e., pediatric otolaryngologist, balance specialist, etc.) as a result of a complete audiological assessment and who demonstrates **specific** conditions associated with the physical ear, hearing impairment (conductive, mixed, sensorineural or ANSD; unilateral or bilateral) or balance dysfunction as indicated in the following appendices. **It is acknowledged that initial concerns may not require consultation with an otolaryngologist, but still require medical opinion. The family physician or pediatrician is a valuable resource for minor otologic conditions that may be treated by these professionals prior to the patient being considered a candidate for referral on to an otolaryngologist. This document is intended to guide the audiologist regarding when to refer their client to an otolaryngologist for consultation.**

## C. Referral Protocols for Consultation with the Otolaryngologist

The following provides an overview of the requirements for various components of an audiological assessment when making a referral for consultation with the otolaryngologist.

## I. Audiological Assessment

1. Case history **(required)**
   a) Medical history: speech-language development, number of ear infections/ treated by physician, ear related surgery, ototoxic medications, vertigo, tinnitus, family history, ear pain, noise exposure, etc.
   b) Parent/significant other observations
   c) Behavioural observations by clinician

2. Visual inspection / Otoscopic Inspection **(required)**

3. Immittance **(required)**
   a) Tympanometry
   b) Acoustic reflex thresholds **(whenever possible)**
   c) Acoustic reflex decay **(optional)**

4. Behavioural Audiometry **(required)**
   a) Pure tone and speech audiometry results (air conduction) and
   b) Bone conduction results **(whenever possible)**

5. Otoacoustic Emissions (e.g. TEOAEs, DPOAEs) **(optional)**

6. Auditory Evoked Potentials **(optional)**

7. Videonystagmography (VNG/ENG) **(optional)**

## II. Referral Criteria/Clinical Indicators

The following provides a list of conditions/clinical indicators that may require an otolaryngology referral. Additional conditions requiring otolaryngology referral can be found in Appendix A.

- Adult hearing impairment – with associated reported abnormal conditions
- Cerumen management (total obstruction)
- Chronic/recurrent ear infections
- Facial paralysis/numbness if otologic cause is suspected with hearing loss
- Head trauma (hospitalization)
- Meningitis
- Otoscopic/visual inspection conditions requiring otolaryngology consultation
- Ear pain
- Permanent childhood hearing impairment or PCHI
- Sudden onset (or change in) sensorineural hearing loss
- Tinnitus
- Unilateral or asymmetrical sensorineural hearing loss
- Vertigo

## III. Referral Process

Based on results of an audiological assessment and meeting the above referral criteria, any client who is in need of a consultation with the appropriate otolaryngologist (pediatric, balance, implants, etc.) with the client's or caregiver's permission, will be referred by the managing audiologist.

1. Inform the client/caregiver of the result and recommendations.

2. Forward the results to the otolaryngologist to which the client is being referred. It is important to send the completed form as soon as possible so that follow-up can be arranged promptly.

3. Results and referral information will be shared with the client's primary care physician and the referral source.

## Appendix A

### HEARING LOSS
### Hearing thresholds worse than 20dBHL in pediatric patients or 30dBHL in adults

| | | Condition | Hearing Loss (specified degree) | For purposes of referral to otolaryngology the following must also occur: |
|---|---|---|---|---|
| ABNORMAL ASSESSMENT | | HL in children<br><br>one or both ears | >20dBHL at 3 consecutive frequencies | · conductive or mixed in origin >3–6 months<br>· suspected permanent loss (conductive, mixed, SN or ANSD)<br>· unexpected change in previously investigated permanent loss |
| | | HL in adults one or both ears | >30dBHL at 3 consecutive frequencies | · conductive or mixed in origin >3–6 months<br>· sensorineural suspected neurological in origin<br>· unexpected change in previously investigated permanent loss |
| | PEDIATRICS AND ADULTS | Sudden SNHL one or both ears<br>**(over 72 hours or more duration)** | change of 30dBHL or more at 3 consecutive frequencies | · with or without tinnitus<br>· with or without vertigo<br>· with or without aural fullness<br>· with poor speech discrimination abilities (for degree of loss)<br>· acoustic reflexes elevated or absent<br>· abnormal ABR results<br>· **URGENT referral to occur within 48–72 hours** |
| | | Recent/Rapid SNHL one or both ears<br>**(over 90 days)** | change of 30dBHL or more at 3 consecutive frequencies | · with or without tinnitus<br>· with or without vertigo<br>· unexpected change in previously investigated permanent loss |
| | | Unilateral/ Asymmetrical SNHL | interaural difference of 30dBHL or more at 3 consecutive frequencies | · with or without tinnitus<br>· with or without vertigo<br>· with or without aural fullness<br>· with poor speech discrimination abilities (for degree of loss)<br>· acoustic reflexes elevated or absent<br>abnormal ABR results |

## Appendix A (cont'd)

### HEARING LOSS
### Hearing thresholds worse than 20dBHL in pediatric patients or 30dBHL in adults

| | Condition | Hearing Status (+) hearing loss (-) normal hearing | Referral to otolaryngology when: |
|---|---|---|---|
| ABNORMAL OTOSCOPIC (VISUAL) EXAM (+) hearing loss (-) normal hearing | **EXTERNAL EAR** | | |
| | Microtia | + | new (pediatric) or seeking treatment |
| | Atresia | + | new (pediatric) or seeking treatment |
| | Pits or tags | + | new (pediatric) or seeking treatment (especially if pit 'leaks") |
| | **CANAL** | | |
| | Stenosis | + | new (pediatric) or seeking treatment |
| | Cerumen (wax) | + | complete occlusion (pediatric) |
| | Foreign body | + | complete occlusion (pediatric) |
| | Otitis Externa | + | · complete occlusion<br>· suspected necrotizing Otitis Externa |
| | Discharge | + | · greater than 3 months or unresponsive to treatment<br>· foul smelling or bloody<br>· fuzzy spores or black or white dots<br>· with severe pain |
| | Nodules/ Polyps/Cysts | +/- | suspected |
| | **TYMPANIC MEMBRANE** | +/- | · suspected hemotympanum (dark red)<br>· suspected cholesteatoma (white mass/ retraction pockets/adelactasis)<br>· suspected gloms tympanum (bluish hue)<br>· suspected perforation (greater than 3 months)<br>· conductive hearing loss >3–6 months |

## Appendix A (cont'd)

### HEARING LOSS
### Hearing thresholds worse than 20dBHL in pediatric patients or 30dBHL in adults

| | Condition | Hearing Status (+) hearing loss (-) normal hearing | Referral to otolaryngology when: |
|---|---|---|---|
| CASE HISTORY ASSOCIATED ABNORMAL CONDITIONS | Otitis Media one or both ears | + | **with mastoid swelling (urgent)** |
| | | +/- | **with vertigo (urgent)** |
| | | +/- | **with facial numbness/paralysis (urgent)** |
| | | + | documented pre-existing sensorineural hearing loss |
| | | + | documented > 3 - 6 months |
| | | +/- | 3 episodes over 6 months or 4 over 12 months |
| | | + | with speech and/or language delays |
| | | + | at risk of complications (febrile seizures, diabetes, immune compromised) |
| | Meningitis | + | **post-illness with any documented hearing loss (urgent)** |
| | Head trauma | + | severe closed head injury (hospitalized) |
| | | + | skull fracture |
| | | + | **recent barotrauma (urgent)** |
| | Pain | + | suspected neurological origin |
| | | +/- | suspected necrotizing otitis externa |
| | | +/- | significant foul smelling aural discharge |
| | Facial Numbness/ Paralysis | +/- | suspected otological origin |
| | | + | with abnormal tympanic membrane appearance |
| | Tinnitus | - | unilateral >90 days |
| | | - | bilateral (disabling) |
| | | +/- | suspected neurological in origin |
| | | +/- | pulsatile |
| | | + | with sudden SNHL |
| | | +/- | with vertigo |
| | Vertigo | +/- | episodic >2 months |
| | | +/- | with tinnitus |
| | | +/- | with sudden SNHL |
| | | +/- | **with pressure changes (flight) (urgent)** |
| | | +/- | uncompensating unilateral weakness on ENG/VNG |
| | | +/- | suspected central vestibular findings on ENG/VNG |

## Abbreviations

| | |
|---|---|
| **ABR** | Auditory Brainstem Response assessment |
| **ANSD** | Auditory Neuropathy Spectrum Disorder |
| **HL** | Hearing Loss |
| **OAE** | Otoacoustic Emissions (e.g., transient evoked or distortion product) |
| **OE** | Otitis Externa |
| **OM** | Otitis Media |
| **PCHI** | Permanent Childhood Hearing Impairment |
| **SN** | Sensorineural |

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