Madigan Army Medical Center
Referral Guidelines

Hearing Loss

Diagnosis/Definition

- Hearing loss, or hearing impairment, is defined as a decrease in auditory function that limits human communication.
- Conductive hearing loss refers to anything that interferes with the movement of sound through the ear canal to the ear drum and its amplification and transmission by the ossicles (middle ear) to the inner ear.
- Sensorineural hearing loss includes any sensory deficit of the cochlea or acoustic nerve.

Initial Diagnosis and Management

- History: Hearing loss should be suspected when a patient reports that he/she frequently asks someone to repeat words, does not hear well when using the telephone, turns the TV or radio up loudly, complains of a unilateral hearing loss, or has used ototoxic medications. Important information to be elicited in the history include: unilateral or bilateral loss; abrupt or gradual onset; associations with trauma, fever, colds, ear pain, vertigo, imbalance, drainage, swimming, tinnitus; history of sudden or chronic loud noise exposure, recent barotrauma (diving and/or flying), etc.
- Physical Examination: Use visual inspection (otoscopy and pneumatoscopy), to assess the condition of auditory structures and rule out cerumen impaction. Use tuning forks (preferably 256 Hz) to assess both air conduction and bone conduction with the Weber and Rinne tests as per any physical examination reference.
- Initial Management: Common disorders that can cause a hearing loss include cerumen impaction, URI or Allergic rhinitis with serous otitis media, tympanic membrane perforation, chronically draining ear, physical trauma, or loud noise exposure. Impacted cerumen should be removed by curette or irrigation using warm water or water and peroxide. Sometimes a softening agent such as Cerumenex® or Debrox® is helpful in relieving the impacted cerumen. Do not use irrigation if Tympanic membrane perforation is known or suspected . Tympanic membrane perforations and middle ear disease should be treated as described in other referral guidelines (e.g., OTITIS MEDIA, TM perforation). Middle ear fluid resulting from an URI, allergic rhinitis, otitis media or eustachian tube dysfunction can persist up to three months despite treatment of the underlying cause. The most common cause of sensorineural hearing loss in adults is noise-related damage to the cochlea. Age related hearing loss (presbycusis) may begin to manifest itself by age 65. Most hearing loss is treatable with amplification. Sudden sensorineural hearing loss has many causes including loud noise exposure, viral infection, diabetes, and cerebral vascular accidents. Acoustic neuromas are rare but can present as either sudden or gradual hearing loss.

Ongoing Management and Objectives

- Resolution of hearing loss associated with treatable medical conditions or audiological rehabilitation with hearing aids.

- Hearing protection devices should be recommended for use whenever the patient is exposed to hazardous noise levels (e.g., noise 85 dBA or greater, or weapons).

Indications for Specialty Care Referral

- If a sudden sensorineural hearing loss is suspected, the patient should be immediately referred to the ENT Clinic for a same-day evaluation (viral infection or loud noise exposure).
- If the hearing loss has existed for some time due to an associated otological disorder (see above), the patient should be referred to the Audiology clinic, as well as to the ENT Clinic, for routine evaluation.
- If there is no obvious otologic disorder, but a hearing impairment is suspected, the patient should be referred to the Audiology Clinic for routine evaluation.
- NOTE: If the patient is active duty military or a Department of Defense civilian employee and exposed to hazardous noise levels, they should be referred to the Hearing Conservation Service (HCS) for evaluation.

Criteria for Return to Primary Care

- Definitive audiological evaluation administered and/or resolution of hearing loss by medical, surgical therapy or audiological rehabilitation (hearing aids).
- Hearing profiles for Active Duty Military personnel will be processed in accordance with AR 40-501.
- Hearing protection devices should be recommended for use whenever the patient is exposed to hazardous noise levels (e.g., noise 85 dBA or greater, or weapons).

Last Review for this Guideline: **May 2009**
Referral Guidelines require review every three years.

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