Medical Coverage Policy | Implantable Bone-Conduction and Bone-Anchored Hearing Aids

EFFECTIVE DATE: 10|01|2015
POLICY LAST UPDATED: 07|21|2015

OVERVIEW

Conventional external hearing aids can be generally subdivided into air-conduction (AC) hearing aids and bone-conduction hearing aids. AC hearing aids require the use of ear molds, which may be problematic in patients with chronic middle ear and ear canal infections, atresia of the external canal, or an ear canal that cannot accommodate an ear mold. Bone-conduction hearing aids function by transmitting sound waves through the bone to the ossicles of the middle ear. Implantable, bone-anchored hearing aids (BAHA) and a partially implantable system have been investigated as alternatives to conventional bone-conduction hearing aids for patients with conductive or mixed hearing loss or in patients with unilateral single-sided sensorineural hearing loss. This policy does not apply to Medicare products as Medicare does not cover hearing aids.

MEDICAL CRITERIA

Not applicable

PRIOR AUTHORIZATION

Not applicable

POLICY STATEMENT

Commercial Products

Unilateral or bilateral implantable bone-conduction (bone-anchored) hearing aid(s) may be considered medically necessary as an alternative to an air-conduction hearing aid in patients 5 years of age and older with a conductive or mixed hearing loss with the following indications:

- Congenital or surgically induced malformations (e.g., atresia) of the external ear canal or middle ear; or
- Chronic external otitis or otitis media; or
- Tumors of the external canal and/or tympanic cavity; or
- Dermatitis of the external canal

An implantable bone-conduction (bone-anchored) hearing aid may be considered medically necessary as an alternative to an air-conduction CROS hearing aid in patients 5 years of age and older with single-sided sensorineural deafness and normal hearing in the other ear.

Other uses of implantable bone-conduction (bone-anchored) hearing aids, including use in patients with bilateral sensorineural hearing loss, are considered not medically necessary.

Partially implantable magnetic bone-conduction hearing systems using magnetic coupling for acoustic transmission (e.g., Otomag Alpha 1 and BAHA Attract) are considered not medically necessary due to limited available evidence, conclusions on net health outcomes cannot be made regarding partially implantable bone-conduction hearing systems.

In situations where the insertion of the device is not medically necessary, re-insertion of the device after removal is also considered not medically necessary.

COVERAGE

Benefits may vary between groups/contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage, or Subscriber Agreement for applicable surgery benefits/coverage and limitations of benefits/coverage when services are not medically necessary.

BACKGROUND

Hearing loss is described as conductive, sensorineural, or mixed and can be unilateral or bilateral. Normal hearing is the detection of sound at or below 20 dB (decibel). The American Speech-Language-Hearing Association has defined the degree of hearing loss based on pure-tone average (PTA) detection thresholds as mild (20-40 dB), moderate (40-60 dB), severe (60-80 dB), and profound (≥80 dB). PTA is calculated by averaging the hearing sensitivities (i.e., the minimum volume that the patient hears) at multiple frequencies (perceived as pitch), typically within the range of 0.25 to 8 kHz.

Sound amplification through the use of an AC hearing aid can provide benefit to patients with sensorineural or mixed hearing loss. Contralateral routing of signal (CROS) is a system in which a microphone on the affected side transmits a signal to an AC hearing aid on the normal or less affected side.

External bone-conduction hearing aids function by transmitting sound waves through the bone to the ossicles of the middle ear. The external devices must be closely applied to the temporal bone, with either a steel spring over the top of the head or with the use of a spring-loaded arm on a pair of spectacles. These devices may be associated with either pressure headaches or soreness.

The BAHA implant system works by combining a vibrational transducer coupled directly to the skull via a percutaneous abutment that permanently protrudes through the skin from a small titanium implant anchored in the temporal bone. The system is based on the process of osseointegration through which living tissue integrates with titanium in the implant over a period of 3 to 6 months, allowing amplified and processed sound to be conducted via the skull bone directly to the cochlea. The lack of intervening skin permits the transmission of vibrations at a lower energy level than required for external bone-conduction hearing aids. Implantable bone-conduction hearing systems are primarily indicated for people with conductive or mixed sensorineural/conductive hearing loss, or as an alternative to an AC hearing aid with CROS for individuals with unilateral sensorineural hearing loss.

Partially implantable magnetic bone-conduction hearing systems are available as an alternative to bone-conduction hearing systems connected percutaneously via an abutment. With this technique, acoustic transmission occurs transcutaneously via magnetic coupling of the external sound processor and the internally implanted device components. The bone-conduction hearing processor contains magnets that adhere externally to magnets implanted in shallow bone beds with the bone-conduction hearing implant. Because the processor adheres magnetically to the implant, there is no need for a percutaneous abutment to physically connect the external and internal components. To facilitate greater transmission of acoustics between magnets, skin thickness may be reduced to 4 to 5 mm over the implant when it is surgically placed.

The available evidence for unilateral or bilateral implantable bone-conduction (bone-anchored) hearing aid is sufficient to demonstrate improved net health outcomes for patients 5 years of age or older in certain situations. The evidence supports the use of these devices in patients with conductive or mixed hearing loss who meet other medical and audiologic guidelines. Evidence also suggests that bilateral bone-anchored hearing aids improve hearing in patients with single-sided sensorineural deafness.

Due to limited available evidence, conclusions on net health outcomes cannot be made regarding partially implantable bone-conduction hearing systems and are therefore considered not medically necessary.

CODING

Commercial Products

The following code is not medically necessary:

69710

*The Audiant bone conductor is a type of electromagnetic bone-conduction hearing device. While this product is no longer actively marketed, patients with existing Audiant devices may require replacement, removal or repair.

The following codes are medically necessary when filed with the ICD-10 diagnosis codes listed below. Any other diagnosis codes are not medically necessary.

69714
69715
L8690
L8691
L8693

ICD-10 Diagnosis Codes

ICD 10 codes for Implant Bone Conduc

RELATED POLICIES

Cochlear Implants
Hearing Aid Mandate
Preauthorization via Web-Based Tool for Procedures
Semi-Implantable and Fully Implantable Middle Ear Hearing Aids

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Provider Update, August 2015

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