MEDICAL POLICY

Date Reviewed: 02/25/00, 03/24/00, 06/23/00, 06/17/03, 08/26/05, 08/25/06, 04/20/07, 02/15/08, 01/23/09

Subject: Cochlear Implants and Bone Anchored Hearing Aids (BAHA)

Description: A cochlear implant is an implantable prosthetic device that provides electronic stimulation to the auditory spiral ganglion which results in a sense of sound to individuals with hearing impairment. A bone-anchored hearing aid (BAHA) is a type of hearing aid that provides sound conduction through a titanium implant implanted in one of the bones of the skull. The BAHA transmits vibrations through the skull bone to the cochlea without being transmitted through the middle ear.

Indications of Coverage:

Cochlear implants are considered medically necessary for individuals greater than 18 years of age when all of the following criteria are met **(Note: cochlear implants are not considered hearing aids)**:

Severe bilateral sensorineural hearing impairment (pure-tone average of at least 70 decibels (dB) at 500, 1000, and 2000 Hertz (Hz))

Documentation of limited benefit (test scores of 40% or less correct in best-aided listening condition on open-set sentence discrimination (for example, sentences, Hearing in Noise Test sentences (HINT)) during a trial of appropriately fitted binaural hearing aids

An evaluation by an audiologist and an otolaryngologist experienced with cochlear implantation indicates the likelihood of success following the implantation of the device.

Cochlear implants are considered medically necessary for individuals between five and 18 years of age when all of the following criteria are met **(Note: cochlear implants are not considered hearing aids)**:

Severe bilateral sensorineural hearing impairment (pure-tone average of at least 90 dB at 1000 Hz)

Documentation of limited benefit from appropriately fitted binaural hearing aids. (For children age five and younger, limited benefit is defined as lack of progress in the development of simple auditory skills in spite of participation in a six-month intensive aural habilitation program and the use of appropriate amplification. For children over age five, limited benefit is defined as less than 20% correct on open-set sentence discrimination (for example, Multi-Syllabic Lexical Neighborhood Test (MLNT) or Lexical Neighborhood Test (LNT)), depending on the child's cognitive ability and linguistic skills.)

For children without previous experience with hearing aids, a six-month hearing aid trial has been attempted

BAHAs are considered medically necessary for individuals over five years of age when all of the following criteria are met **(Note: BAHAs are considered hearing aids and the following criteria would only apply for those individuals who have a specific policy benefit for hearing aids.)**:

An air-conduction hearing aid is contraindicated

Pure tone average bone conduction threshold of at least 70 dB

Speech discrimination score better than 60%

Documentation of one of the following conditions:

Severe chronic ear infection (for example, external otitis or otitis media)

Malformations of the external or middle ear canal (either congenital or the result of surgery)

Tumors of the ear canal

Cochlear implants or BAHAs for children under five years of age require physician review.

Cochlear implants for individuals with a history of head and/or neck cancer requires physician review.

Limitations of Coverage:

Review contract and endorsements for exclusions and prior authorization or benefit requirements. (For BAHAs, hearing aids may not be a covered benefit. Cochlear implants may not be a covered benefit. **Note: cochlear implants are not considered hearing aids.**)

If used for a condition/diagnosis other than is listed in the Indications of Coverage, deny as experimental or investigative.

If used for a condition/diagnosis that is listed in the Indications of Coverage, but the criteria are not met, deny as not medically necessary.

Cochlear implants are considered not medically necessary when any of the following are documented:

Cochlear aplasia (failure of development)

Acute middle ear infection

Dysfunctional acoustic nerve

Cancer of the head or neck

Bilateral (binaural) cochlear implants are considered investigative as there is insufficient peer-reviewed scientific literature establishing the effectiveness of bilateral devices.

BAHAs are considered investigational for the following conditions as there is insufficient peer-reviewed scientific literature supporting the use of BAHAs in these situations:

For individuals with bilateral sensorineural hearing loss (limitations in hearing due to a defect or trauma of the cochlea or auditory nerve where nerve impulses to the brain are decreased)

For individuals with normal hearing in one ear (unilateral sensorineural deafness)

Documentation required:

Office notes

Test results, including audiogram report

Rationale: Studies have shown the effectiveness of cochlear implants in carefully selected patients. Reports have not demonstrated increased effectiveness in all aspects of hearing from binaural implants over unaural implants, and additional studies are needed, especially related to the increased potential risk with bilateral implants. No cochlear implant has currently been approved by the US Food and Drug Administration (FDA) for binaural use.

The FDA determined that BAHAs are substantially equivalent to air-conduction hearing aids. Several trials have demonstrated the effectiveness of BAHAs for individuals with a conductive or mixed hearing loss. There is insufficient evidence supporting the use of BAHAs in individuals with single sided deafness. Studies regarding the use of BAHAs for other conditions are ongoing.

References:

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Centers for Medicare and Medicaid Services (CMS). National Coverage Determination (NCD) for Cochlear Implantation. NCD 50.3. Baltimore, MD. Effective date: 04/04/2005. Available at: www.cms.hhs.gov/mcd/index_list.asp?list_type=ncd. Accessed: 6 Jan 09.

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Approved by the Medical Director