



**BONE-ANCHORED HEARING AID (Baha®)  
HS-045**



*Harmony Behavioral Health, Inc.*

*Harmony Behavioral Health of Florida, Inc.*

*Harmony Health Plan of Illinois, Inc.*

*HealthEase of Florida, Inc.*

*'Ohana Health Plan, a plan offered by  
WellCare Health Insurance of Arizona, Inc.*

*WellCare Health Insurance of Illinois, Inc.*

*WellCare Health Insurance of New York, Inc.*

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*WellCare of New York, Inc.*

*WellCare of Ohio, Inc.*

*WellCare of Texas, Inc.*

*WellCare Prescription Insurance, Inc.*

**Bone-Anchored  
Hearing Aid (Baha®)**

**Policy Number: HS-045**

**Original Effective Date: 9/18/2008**

**Revised Date(s): 9/18/2009; 9/24/2010;  
9/1/2011**

**DISCLAIMER**

The Clinical Coverage Guideline is intended to supplement certain standard WellCare benefit plans. The terms of a member's particular Benefit Plan, Evidence of Coverage, Certificate of Coverage, etc., may differ significantly from this Coverage Position. For example, a member's benefit plan may contain specific exclusions related to the topic addressed in this Clinical Coverage Guideline. When a conflict exists between the two documents, the Member's Benefit Plan always supersedes the information contained in the Clinical Coverage Guideline. Additionally, Clinical Coverage Guidelines relate exclusively to the administration of health benefit plans and are NOT recommendations for treatment, nor should they be used as treatment guidelines. The application of the Clinical Coverage Guideline is subject to the benefit determinations set forth by the Centers for Medicare and Medicaid Services (CMS) National and Local Coverage Determinations and state-specific Medicaid mandates, if any.

**APPLICATION STATEMENT**

The application of the Clinical Coverage Guideline is subject to the benefit determinations set forth by the Centers for Medicare and Medicaid Services (CMS) National and Local Coverage Determinations and state-specific Medicaid mandates, if any.

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**BACKGROUND**

Baha® devices are FDA-approved, bone-anchored, bone conduction hearing aids and, according to the FDA and manufacturer, are specifically indicated for patients over five years of age (FDA 510(k) K984162, 1999; BAHA, Entific Medical Systems, 2002–2004). *The devices are FDA approved for unilateral or bilateral mixed or conductive hearing loss, and for unilateral sensorineural hearing loss.* In the Baha®, the hearing aid transducer is coupled to a titanium screw located in the upper mastoid region on the temporal bone. The titanium screw protrudes through the skin. The difference between the standard bone conduction hearing aid and the bone-anchored hearing aid is direct stimulation of the bone occurs as opposed to stimulation through the skin. Thus the Baha® device transmits sound to the cochlea bypassing any conductive component that may be obstructing the sound source.

#### *BAHA Models*

There are several BAHA models available: the Baha Divino™, BAHA® Classic 300, BAHA® Compact, and the BAHA® Cordelle (Entific Medical Systems, Goteberg, Sweden). The BAHA Divino utilizes digital sound processing and a built-in directional microphone. This device may be utilized by patients with bone conduction thresholds of 45 dB. Patients with unilateral, profound sensorineural hearing loss of the indicated ear with normal contralateral hearing (defined as 20 dB HL air conduction pure tone average) may also benefit from this device. The Classic and Compact models are suitable for people with conductive or mixed hearing loss and a maximum bone conduction threshold of 45 dB. The Cordelle model is indicated for more severe hearing loss, with an average bone threshold of approximately 70 dB. The patients recommended for this device must either be unable to use conventional air conduction hearing aids or have undergone ossicular replacement surgery because of chronic otitis media, congenital malformation of the middle/external ear, or other acquired malfunctions of the middle or external ear canals which preclude the wearing of a conventional air conduction hearing aid. Patients must be able to maintain the abutment/skin interface of the BAHA.

The BAHA Cordelle was determined to be “a viable, safe, low-morbidity hearing rehabilitation option in patients with mixed hearing loss with poor sensorineural reserve” (Ho, Monksfield, Egan, Reid & Proops, 2009).

#### *Scientific Review*

Several reviews have reported improved patient outcomes and functioning with the use of BAHA devices. Snik et al. (1995) compared the BAHA device with conventional bone conduction devices and reported improved speech recognition scores with the BAHA device. Wazen et al. (1998) reported improved speech reception threshold and patient satisfaction with use of the BAHA device. A technology literature review was conducted by the Medical Advisory Secretariat (MAS), Ontario Ministry of Health and Long Term Care (2002). The review indicated that BAHA devices have been safely implanted in adults and children with success rates of 90% and higher in most studies. In addition, they stated that BAHA devices significantly improved the free field and sound field thresholds and speech discrimination for former users of bone conduction hearing aids. Hayes conducted a technology assessment to evaluate the safety and efficacy of the BAHA device for moderate to severe conductive or mixed hearing loss (Hayes, 2005). Hayes’ (2005) concluded the evidence from several prospective studies and some retrospective reviews suggests that BAHA devices can provide significant improvements in functional gain, speech perception, and hearing ability in various listening situations, compared to air conduction hearing aids for some patients with moderate to severe conductive hearing loss. BAHA use was also associated with improvements in language development in young children.

An update to Hayes (2005) demonstrating efficacy of the use among children and adults, including different BAHA models now available and long-term data.

The BAHA’s efficacy was explored over a 15 year period from 1992 to 2007 of 182 pediatric patients from

Birmingham Children's Hospital in England. Data show "the BAHA is a reliable and effective treatment for selected patients. Our program currently has 97% of its children wearing their BAHA on a daily basis with continuing audiologic benefit." (McDermott, Williams, Kuo, Reid & Proops, 2009a). Quality of life among individuals from the same program were measured using the Glasgow Children's Benefit Inventory as a source of measurement – findings found "the use of a BAHA significantly enhanced general well-being, improved patient state of health (quality of life), and finally, was considered a success by patients and their families." (McDermott, Williams, Kuo, Reid & Proops, 2009b).

## POSITION STATEMENT

Unilateral implantation of bone-anchored hearing aids (Baha®) **is considered medically necessary** when the following criteria are met:

1. Unilateral or bilateral mixed or conductive hearing loss or unilateral sensorineural hearing loss; **AND**
2. Pure tone average bone conduction threshold of up to 70 dBHL (decibel hearing loss); **AND**,
3. Speech discrimination score better than 60%; **AND**,
4. At least 5 years of age\*; **AND**,
5. At least one of the following conditions:
  - Documentation of chronic ear infection/inflammation
  - Congenital or surgically induced ear malformations of the external or middle ear canal
  - Tumors of the external canal and/or tympanic activity

\*Surgical implantation of the Baha® device is not FDA approved for children younger than 5 years of age. The Baha® SoftBand may be used in children younger than five.

## CODING

### Covered CPT® Codes

- 69710** Implantation or replacement of electromagnetic bone conduction hearing device in temporal bone  
**69711** Removal or repair of electromagnetic bone conduction hearing device in temporal bone.  
**69714** Implantation, osseointegrated implant, temporal bone, with percutaneous attachment to external speech processor/cochlear stimulator; without mastoidectomy  
**69715** Implantation, osseointegrated implant, temporal bone, with percutaneous attachment to external speech processor/cochlear stimulator; with mastoidectomy  
**69717** Replacement (including removal of existing device), osseointegrated implant, temporal bone, with percutaneous attachment to external speech processor/cochlear stimulator; without mastoidectomy  
**69718** Replacement (including removal of existing device), osseointegrated implant, temporal bone, with percutaneous attachment to external speech processor/cochlear stimulator; with mastoidectomy

### Covered ICD-9-CM Procedure Codes

- 20.96** Implantation or replacement of cochlear prosthetic device, NEC  
**20.97** Implantation or replacement of cochlear prosthetic device, single channel  
**20.98** Implantation or replacement of cochlear prosthetic device, multiple channel  
**20.99** Attachment of percutaneous abutment (screw) for prosthetic device;  
Repair or removal of cochlear prosthetic device (receiver and/or electrode)

**HCPCS Level II (DME) ©Codes**

- L8690** Auditory Osseointegrated device, includes all internal and external components  
**L8691** Auditory osseointegrated device, external sound processor, replacement  
**L8692** Auditory Osseointegrated device, external sound processor, used without osseointegration, body worn, includes headband or other means of external attachment  
**L8693** Auditory Osseointegrated device abutment, any length, replacement only

**Covered ICD-9-CM Diagnosis Codes**

- 389.05** Unilateral Conductive Hearing Loss  
**389.06** Bilateral Conductive Hearing Loss  
**389.15** Unilateral Sensorineural hearing loss  
**389.21** Unilateral Mixed Conductive and Sensorineural Hearing Loss  
**389.22** Bilateral Mixed Conductive and Sensorineural Hearing Loss

\*Current Procedural Terminology (CPT) 2011 American Medical Association: Chicago, IL.®©

**REFERENCES****Peer Reviewed**

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4. McDermott, A.L., Williams, J., Kuo, M., Reid, A., & Proops, D. (2009a). The Birmingham pediatric bone-anchored hearing aid program: a 15-year experience. *Otology and Neurotology*, 30(2), 178-183.
5. McDermott, A.L., Williams, J., Kuo, M., Reid, A., & Proops, D. (2009b). Quality of life in children fitted with a bone-anchored hearing aid. *Otology and Neurotology*, 30(3), 344-349.

**Government Agencies, Professional and Medical Organizations**

N/A

**HISTORY AND REVISIONS**

| Date      | Action                                 |
|-----------|--|
| 12/1/2011 | • New template design approved by MPC. |
| 9/1/2011  | • Approved by MPC.                     |