Coverage:

A single or multi-channel cochlear implant may be eligible for coverage in patients with severe or profound sensorineural deafness (hearing threshold of 70 decibels or greater) who cannot benefit from a hearing aid, including those with hearing loss due to meningitis and who do not have:

- Acoustic (8th) nerve damage;
- Central auditory pathway damage; or
- Otitis media or other active, unresolved ear problems such as infections.

Description:

A cochlear implant is intended to restore a level of auditory sensation to individuals with severe to profound sensorineural hearing loss by means of electrical stimulation of the auditory nerve. Cochlear implantation improves communication ability in most adults and frequently leads to positive psychological and social benefits as well.

Severe hearing loss is defined as a hearing threshold of 70-90 decibels (dB) and profound hearing loss is defined as a hearing threshold of 90 dB and above.

Currently, the multi-channel model has replaced the single channel model as the device of choice for implantation.

The basic components of a cochlear implant include:

- a microphone;
- an external signal processor;
- an external transmitter;
- an internal receiver; and
- an electrode array implanted in the cochlea.

Sounds that are picked up by the microphone are carried to the external signal processor, which transforms sound into electrical signals. These signals are transmitted to the internal receiver implanted in the temporal bone, which activates the wire implanted in the cochlea. Electrical stimulation of the cochlea by the electrode enables a profoundly deaf person to experience the sensation of sound.

A post cochlear implant rehabilitation program is integral to the success of the implantation procedure. The rehabilitation program itself consists of 6 to 10 sessions that may last up to 2 ½ hours per session. This rehabilitation program includes development of skills
in understanding speech, recognition of vowels and consonants and tests to evaluate speech perception.

FDA approved cochlear implants include:

- the Nucleus 22-channel which is approved for use in post-lingually, severely profound and profoundly deaf patients and for use in children aged 2 through 17, both pre-lingually (before speech and language are learned) and post-lingually (after speech and language are learned) deaf patients;

- the Clarion cochlear implant which is approved for use in patients aged 18 years or older with profound post-lingual, bilateral sensorineural deafness.

- The Nucleus 24 Cochlear Implant system is approved for adults and children to restore a level of auditory sensation via electrical stimulation of the auditory nerve.

**NOTE:** Most cochlear implants are not MRI compatible, and users and physicians should be aware of this problem.

**RATIONALE:**

A COCHLEAR IMPLANT is intended to restore a level of auditory sensation to individuals with severe to profound sensorineural hearing loss by means of electrical stimulation of the auditory nerve. A number of cochlear implants have now been FDA approved. This policy lists those implants that have been FDA approved as well as the criteria for patient selection.

**PRICING:**

Cochlear implants may vary in the number of circuits/electrodes they utilize. Each output circuit/electrode is programmed separately to deliver signals that can vary in loudness and pitch. The programming of these electrodes is considered part of the global fee for the cochlear implantation.

**DISCLAIMER:**

State and federal law, as well as contract language, including definitions and specific inclusions/exclusions, takes precedence over Medical Policy and must be considered first in determining coverage. The member’s contract benefits in effect on the date that services are rendered must be used. Any benefits are subject to the payment of premiums for the date on which services are rendered. Medical technology is constantly evolving, and we reserve the right to review and update Medical Policy periodically. HMO Blue Texas physicians who are contracted/affiliated with a capitated IPA/medical group must contact the IPA/medical group for information regarding HMO claims/reimbursement information and other general polices and procedures.

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