

AUDIOLOGICAL SERVICES: PROCEDURES AND DEFINITIONS

**OVR Guidance Document – Guidance Document Number to be added
(MONTH) (YEAR)**

PROCEDURES

Purchasing Hearing Aids from a Licensed and Qualified Audiologist

The following process must be used for hearing aid purchases:

1. OVR staff and customer develop either an initial IPE or an amended IPE with hearing aids as a service.
2. OVR staff generates a purchase order (PO) and blank provider invoice form for the quoted price of hearing aids, plus the appropriate separate dispensing fee, any ear molds, hearing aid checkout fee, and other cost services to be provided by the provider.
3. Audiologist receives the PO and blank provider invoice form from OVR and orders the hearing aid.
4. Audiologist receives the hearing aid from the manufacturer or third-party hearing aid broker and contacts customer for the initial fitting.
5. After the initial fitting, audiologist fills out the hearing aid verification form and OVR provider invoice and sends those forms and the hearing aid manufacturer invoice or detailed hearing aid invoice from the third-party hearing aid broker to OVR staff for payment.
6. OVR staff follows up with customer to ensure their hearing aid(s) are working as expected.

Purchasing Hearing Aids from a Hearing Aid Fitter

The following process must be used for hearing aid purchases:

1. OVR staff and customer develop either an initial IPE or an amended IPE with hearing aid(s) as a service.
2. OVR staff generates a PO and blank provider invoice form for the quoted price of hearing aid(s), plus the appropriate separate dispensing fee, any ear molds, and other cost services to be provided by the provider.
3. OVR staff generates a separate PO for the hearing aid verification fee to the audiologist who will be fitting the hearing aid(s).
4. The hearing aid fitter receives the PO and blank provider invoice form from OVR and orders the hearing aid(s).
5. The hearing aid fitter receives the hearing aid(s) from the manufacturer or third-party hearing aid broker and sends them to the

audiologist of customer's choice. The hearing aid fitter also sends the hearing aid manufacturer invoice or detailed invoice from the hearing aid broker and completed OVR provider invoice to OVR staff.

6. After the initial fitting, the audiologist fills out the hearing aid verification form and OVR provider invoice for the hearing aid verification fee and sends both to OVR staff.
7. OVR staff follows up with customer to ensure that their hearing aid(s) are working as expected.

Cochlear Implant (CI) Prior Approval for Surgery

The following process must be used prior to forwarding the OVR request to provide financial assistance for the CI surgery to CO:

1. Refer the customer to an audiologist who is trained on fitting and programming CIs. This is necessary to ensure that FDA procedures for candidacy for CI surgery are followed.
2. Obtain clearance for CI surgery from the audiologist and ENT surgeon on either an OVR-9 or in writing on official letterhead. OVR may pay for bilateral implantation surgery if the audiologist and ENT recommends bilateral CIs. OVR may also pay for the customer's bimodal use of a CI on one ear and a compatible regular or BiCROS hearing aid for the other ear.
3. Obtain a cost breakdown for the surgery from the hospital or clinic in which surgery will occur. At minimum, the cost breakdown must include all doctor's fees, hospital room charges, charges for anesthesia, and the internal and external device(s) itself.
4. Draft the IPE with CI surgery and cochlear implant activation and programming as planned services and send the IPE in draft status to the DA or designee for review and approval.
5. If approved, the DA or designee will forward all the above information to the OVR Statewide Coordinator for final approval.
6. If the request to cover the costs of CI surgery is approved by CO, then DO staff must finalize the IPE and generate the appropriate POs using the CWDS fee schedule.
7. DO staff will closely monitor the customer's progress toward acclimation of the CI device(s) and authorize as many AR sessions as needed up to one year after the activation date of the CI device(s).

Auditory Osseointegrated Implant

For OVR to contribute to the overall cost of surgery of the auditory osseointegrated implant, the following items must be reviewed by the DA or designee and then sent to the OVR Statewide Coordinator for approval:

1. Refer the customer to an audiologist who has training on fitting and programming auditory osseointegrated implants. This is necessary to ensure that FDA procedures for candidacy for surgery are followed.
2. Obtain clearance for CI surgery from the audiologist and ENT surgeon on either an OVR-9 or in writing on official letterhead.
3. Obtain a cost breakdown for the surgery from the hospital or clinic in which surgery will occur. At a minimum, the cost breakdown must include all doctor's fees, any hospital room charges, charges for anesthesia, and the internal and external device(s) itself.
4. Draft the IPE with surgery and device activation and programming as planned services and send the IPE in draft status to the DA or designee for review and approval.
5. If approved, the DA or designee will forward all the above information to the OVR Statewide Coordinator for final approval.
6. If the request to cover the costs of surgery is approved by CO, then DO staff must finalize the IPE and generate the appropriate POs using the CWDS fee schedule.
7. DO staff must closely monitor the customer's progress toward acclimation of the auditory osseointegrated implant and authorize as many AR sessions as needed up to one year after the activation date of the auditory osseointegrated implant.
8. DO staff may pay providers the monaural hearing aid fitting fee, in addition to the AR sessions.

DEFINITIONS

Act 57, Sign Language Interpreter and Transliterators State Registration Act of 2004

The state act that establishes the registry of state-registered interpreters. Interpreters must adhere to this Act in order to be state registered within the Commonwealth of Pennsylvania. The Office for the Deaf & Hard of Hearing (ODHH) administers and enforces the Act. See Appendix 4 for more information about the Act and procedures for obtaining state-registered interpreters for OVR customers.

Audiogram

A graph that shows the audible threshold for standardized frequencies as measured by an audiometer. The Y axis represents intensity measured in

decibels hearing level (dB HL) and the X axis represents frequency measured in Hertz (Hz).

Audiologist

Audiologists are licensed health care professionals who evaluate, treat, and manage hearing loss and balance disorders in adults and children. Audiologists prescribe and fit hearing aids, administer tests of balance to evaluate dizziness, evaluate and treat tinnitus, and provide hearing rehabilitation training. Some audiologists who are employed in a cochlear implant (CI) clinic can evaluate patients for CI candidacy (which may include an audiogram to be completed again), counsel patients with regard to CI processor selection and expectations, provide follow up programming of the CI processor, trouble shoot equipment malfunction and complete follow-up sound field post testing to monitor progress with the CI. Audiologists hold a doctoral degree (AuD or Ph.D.) or master's degree from an accredited university with special training in prevention, identification, assessment, and treatment of hearing and balance disorders.

Auditory Osseointegrated Device Implant

Some customers who are deaf, hard of hearing, and deaf-blind have unilateral or bilateral hearing loss due to physical deformities of the external ear, such as certain cranio-facial disorders, or due to trauma of the ear from disease or an accident. In such cases, the fitting and use of traditional hearing aids, CROS, and BiCROS hearing aids may be contraindicated. Instead, the audiologist may recommend an auditory osseointegrated device implant, or a bone anchored hearing aid (Baha) as it is more commonly known, for treating the hearing loss. The auditory osseointegrated device implant system consists of a small titanium post called an abutment that is surgically implanted above the ear and anchored into the skull, and an external sound processor that is attached to the abutment. The device works by sending digitally processed signals through the skull and to the brain in a process known as bone conduction.

Auditory Osseointegrated Speech Processor

This type of speech processor sends vibrations through the skull. It is attached to an abutment that is surgically implanted on the skull of the patient above the ear with hearing loss. Sound is processed and converted into vibrations through the abutment, then to the other ear without hearing loss, where they are converted into nerve impulses and carried on the hearing nerve to the brain.

Aural Rehabilitation (AR)

Also referred to as audiological rehabilitation, auditory rehabilitation, hearing rehabilitation, and rehabilitative audiology, aural rehabilitation refers to practices that reduce hearing-loss-induced deficits of function, activity,

participation, and quality of life through sensory management, instruction, perceptual training, and counseling.

Communication Access Realtime Translation (CART)

This type of communication access service uses court reporters or stenographers to provide live captioning of meetings, classes, and events. The captioner uses a stenography machine connected to a computer to translate the keystrokes from the stenography machine to English words. The translated captions are then displayed via a projector to a screen or sent over the internet to a user's internet browser or videoconferencing software. This service is typically used for individuals who self-identify as hard of hearing but may also be used in conjunction with sign language interpreting services (see below), especially in public events. The OVR FNT is not applied to this service because CART is considered an auxiliary aid.

Cochlear Implant (CI)

A CI is considered an effective long-term solution for individuals with moderate to profound sensorineural hearing loss who no longer have useful speech recognition ability with hearing aids. To determine if a patient is a candidate for a CI, in addition to a medical consult, he/she must undergo an audiology candidacy evaluation to determine if speech recognition ability with appropriately fitting hearing aids is within FDA criteria for a CI. Further requirements from OVR for consideration of financial assistance for CI surgery and/or hardware replacement is explained in greater detail in OVR's Audiological Services policy.

A complete CI system consists of two components:

- A surgically implanted device consisting of a receiver/stimulator placed under the skin behind the ear and an electrode array that is inserted into the cochlea (inner ear), replacing damaged hair cell receptors in the cochlea.
- An external processor that interfaces magnetically to the surgically implanted implant. The microphone of the processor picks up the acoustic signal which is then transformed into an electrical signal. Based on the electrical current needs of the patient, an appropriate listening program is created which is then transmitted across the skin via an FM radio signal to the electrode array in the cochlea. These electrodes then stimulate remaining auditory nerve fibers, and the signal is interpreted at the level of the brain as sound.

With follow up reprogramming of the CI sound processor system and additional experience listening through the device, patients have improved access to high frequency information and potentially better understand conversational level speech without use of lip reading and hear more environmental sounds.

Contralateral Routing of Signal (CROS) and Bilateral Contralateral Routing of Signal (BiCROS) Hearing Aids

On occasion, a customer with single-sided deafness may experience problems with localizing sound and understanding speech in noisy environments due to hearing loss in one ear. This happens due to the head's tendency to block sound coming from the side of the head with the hearing loss. CROS and BiCROS hearing aids were developed to address this issue.

- **BiCROS systems** are used for customers with one ear in which a traditional hearing aid cannot be used due to the severity of the hearing loss, word recognition, or tolerance issue, and one ear with hearing loss that may be corrected with a traditional hearing aid. The transmitter is worn on the affected ear, and the signal from the transmitter is sent wirelessly to the other side to give the customer the sensation of hearing from both ears. The receiver on the ear which receives clearer sound is a traditional hearing aid that accept signals from the transmitter and amplifies the sound.
- **CROS systems** are used for customers with one ear in which a traditional hearing aid cannot be used due to the severity of the hearing loss, word recognition, or tolerance issue, and one ear which is unimpaired. The transmitter is worn on the affected ear, and the signal from the transmitter is sent wirelessly to the other side to give the customer the sensation of hearing from both ears. The receiver on the ear which is unimpaired is a hearing aid that only serves to accept the transmitted signal without amplifying the sound, as this ear does not have a hearing loss.

Ear Molds

An ear mold is a specifically molded piece of plastic, acrylic or other soft material shaped to fit a patient's ear canal, and/or the outer ear structure (concha) surrounding the ear canal. Ear molds are used for behind-the-ear hearing aids and depending on customer preference and the type of hearing loss, ear molds may either be canal, full-shell, half-shell, skeleton, or semi-skeleton. Ear molds may be manufactured with open vents that allow low frequencies to exit the ear canal naturally. Ear molds with vents also reduce occlusion (the sound one hears when their sinuses are clogged or when the entire ear is cupped). Ear molds with larger vents are called "open fit" and are recommended with good hearing in the low frequencies.

Hearing Aid

Hearing aids are sound-amplifying devices designed to aid people who have a hearing impairment. Most share several similar electronic components, including a microphone that picks up sound, amplifier circuitry that makes the sound louder, a microprocessor that digitally manipulates the incoming

sound specific to the patient's hearing loss, a miniature loudspeaker (receiver) that delivers the amplified and digitally manipulated sound into the ear canal, and batteries that power the electronic parts. Hearing aids are medical devices that are regulated by the US Food and Drug Administration (FDA).

- **Monaural Hearing Aid** - one (1) hearing aid.
- **Binaural Hearing aids** - two (2) hearing aids

Hearing Aid Fitter (or Hearing Instrument Specialist)

An individual who holds a fitter's certification of registration. Prior to holding a valid certification of registration, such individuals must undergo a six-month supervised training program as an apprentice under another holder of the fitter's certification of registration, and at the conclusion of training, must pass the fitter's exam. Audiologists do not need to hold a valid certification of registration, as their state license allows them to fit hearing aids without requiring a separate certification of registration.

Hearing Loss

- **Conductive hearing loss** - Hearing loss is due to problems with the ear canal, ear drum, or middle ear and its bones (the malleus, incus, and stapes).
- **Mixed hearing loss** – Refers to a combination of conductive and sensorineural hearing loss. It means that there may be damage in the outer or middle ear as well as in the inner ear (cochlea) or auditory nerve.
- **Post-lingual deafness**
Individuals who became profoundly to totally deaf after acquiring spoken language.
- **Pre-lingual deafness**
Individuals who became profoundly to totally deaf before acquiring spoken language.
- **Sensorineural hearing loss (SNHL)** - Hearing loss is due to problems of the inner ear, also known as nerve-related hearing loss.

Sign Language Interpreting Services

This type of communication access service uses a person employed as a sign language interpreter to translate spoken English or other spoken language into a signed system, such as American Sign Language (ASL), Signing Exact English, or Pidgin Signed English. The same person also translates ASL, Signing Exact English, or Pidgin Signed English to spoken English. This service is typically used by individuals who self-identify as deaf but may also

be offered in conjunction with CART (see above), especially for public events. For the purposes of this policy, sign language interpreters employed by OVR to facilitate communication between OVR staff and customers, and between providers and customers, must be state-registered with ODHH under Act 57. The FNT is not applied to sign language interpreting services because this is an auxiliary aid.

Telecoils and T-Switches

Telecoils, also called t-coils, t-switches, or telephone switches, are inexpensive devices that can be installed inside most hearing aids, if size permits its use. The main purpose of the telecoils is to enable the hearing aid wearer to access assistive listening devices that use induction loops or neckloops to transmit sound directly to the hearing aids. Telecoils have the advantage of eliminating hearing aid feedback when used at a high volume and may also assist in reducing or eliminating background noise. Telecoils can also be used with hearing aid-compatible telephones to assist with increased understanding of phone conversations.