Utilization Review Policy 392

POLICY: Otolaryngology – Gene Therapy – Otarmeni Utilization Management Medical Policy
- Otarmeni™ (lunsotogene parvec-cwha intracochlear infusion – Regeneron)

EFFECTIVE DATE: 08/01/2026
REVIEW DATE: 4/29/2026

COVERAGE CRITERIA FOR: All UCare Plans

OVERVIEW

Otarmeni, an adeno-associated virus vector-based gene therapy, is indicated for the treatment of pediatric patients and adults with **severe-to-profound and profound sensorineural hearing loss (any frequency > 90 decibel hearing level [dB HL]) associated with molecularly confirmed biallelic variants in the (otoferlin) *OTOF* gene, preserved outer hair cell function, and no prior cochlear implant in the same ear**.[1]

Otarmeni was approved under accelerated approval based on improvement of hearing sensitivity assessed by average pure tone audiometry at Week 24.[1] Continued approval for this indication may be contingent upon verification and description of clinical benefit in the confirmatory clinical trial.

Limitations of use.[1] Otarmeni is not recommended in patients in whom preoperative imaging demonstrates that access to the inner ear is not feasible, including those with abnormal mastoid pneumatization or clinically significant anatomic variations of the middle ear and inner ear.

Disease Overview

In the US, congenital deafness occurs in 1.7 out of every 1,000 newborns and is mainly the result of genetic variabilities.[2] Variants in the *OTOF* gene, which encodes otoferlin, are one of the leading causes of congenital deafness; approximately 1% to 3% of congenital genetic deafness cases are due to biallelic pathogenic variants in *OTOF*.[2,3] *OTOF*-related hearing loss, an ultra-rare condition, is inherited in an autosomal recessive manner.[4] *OTOF*-related hearing loss is an auditory synaptopathy that results from defective synaptic transmission from normally functioning cochlear inner hair cells to the auditory nerve.

Otoferlin, expressed exclusively in the cochlear hair cells, vestibular hair cells, and central nervous system, is essential for auditory signal transmission.[2,3] There are no consensus clinical diagnostic criteria for *OTOF*-related hearing loss.[4] Early auditory intervention is vital to the development of speech and language. Current management options include hearing aids, cochlear implants, and assistive hearing technologies.[3,4]

Clinical Efficacy

Otarmeni is being evaluated in an ongoing, multicenter, single-arm, Phase I to II study (CHORD).[1,2] The study will enroll up to 30 patients; approval of Otarmeni was based on efficacy assessment results from 20 patients.[1] Enrolled patients were < 18 years of age and had molecularly confirmed *OTOF* gene-associated profound sensorineural hearing loss (defined by an average audiometric threshold of > 90

dB HL on pure tone audiometry averaged across 0.5, 1, 2, and 4 kHz and auditory brainstem response). In addition, patients had evidence of outer hair cell activity by otoacoustic emissions testing. Patients with cochlear implants in the same ear to be treated with Otarmeni were excluded from the study. In total, 24 patients received a single dose of Otarmeni; 10 patients received unilateral treatment and 14 patients received bilateral treatment.

The median age of the patients was 2 years (range 10 months to 16 years).[1] The majority of patients were female (n = 16) and White (n = 17), followed by Asian (n = 4) and race was not reported in 3 patients. Of the 24 patients who received Otarmeni, 20 patients completed efficacy assessments at Week 24; 5 patients had a contralateral cochlear implant in place before enrollment and 2 patients received a cochlear implant in the contralateral ear during the same surgical session for Otarmeni administration.

At 24 weeks, 80% of patients achieved the primary endpoint, which was the achievement of a hearing sensitivity threshold ≤ 70 dB HL assessed by average pure tone audiometry (i.e., average of pure tone audiometry thresholds at 0.5, 1, 2, and 4 kHz).[1] In total, 70% of patients achieved the key secondary endpoint, which was the presence of auditory brainstem response to a click (broadband sound) stimulus of ≤ 90 dB noise-induced hearing loss).

POLICY STATEMENT

Prior Authorization is recommended for medical benefit coverage of Otarmeni. Approval is recommended for those who meet the **Criteria** and **Dosing** for the listed indication. Because of the specialized skills required for evaluation and diagnosis of patients treated with Otarmeni as well as the specialized training required for administration of Otarmeni, approval requires Otarmeni to be prescribed by or in consultation with a physician who specializes in the condition being treated. All approvals are provided for one dose per ear (per lifetime). The approval duration is 90 days to allow for an adequate timeframe to administer Otarmeni.

Automation: None.

RECOMMENDED AUTHORIZATION CRITERIA

Coverage of Otarmeni is recommended in those who meet the following criteria:

FDA-Approved Indication

1. **Sensorineural Hearing Loss.** Approve one dose per ear per lifetime (i.e., up to total of two doses) if the patient meets ALL of the following (A, B, C, D, E, F, and G):
   - **A)** Patient has molecularly confirmed biallelic variants in the otoferlin (*OTOF)* gene; AND
   - **B)** Patient has severe-to-profound or profound hearing loss, as defined by > 90 decibels hearing level; AND
   - **C)** Patient has preserved outer hair cell function, as determined by the prescriber; AND
   - **D)** Patient did not have a prior cochlear implant in the ear to be treated with Otarmeni; AND
   - **E)** Patient is not receiving retreatment of ear(s) previously treated with Otarmeni; AND
   - **F)** Patient meets BOTH of the following (i and ii):
     - **i.** Patient had preoperative imaging; AND
     - **ii.** Access to the inner ear is feasible; AND
       Note: Scenarios such as abnormal mastoid pneumatization or clinically significant anatomic variations of the middle ear and inner ear may deem access to the inner ear infeasible.
   - **G)** The medication is prescribed by or in consultation with an otolaryngologist.

Dosing. Approve up to two doses of Otarmeni (one dose per ear per lifetime) to be given as an intracochlear infusion; each dose is 7.2 x 10^{13} vector genomes in a total volume of 0.24 mL.

CONDITIONS NOT RECOMMENDED FOR APPROVAL

Coverage of Otarmeni is not recommended in the following situations:

1. **Prior Gene Therapy**. Patients who had received prior gene therapy were excluded from the Otarmeni pivotal study.[1,2]

2. Coverage is not recommended for circumstances not listed in the Recommended Authorization Criteria. Criteria will be updated as new published data are available.

REFERENCES

1. Otarmeni™ intracochlear infusion [prescribing information]. Tarrytown NY; Regeneron: April 2026.
2. Valayannopoulos V, Bance M, Carvalho DS, et al. DB-OTO gene therapy for inherited deafness. *N Engl J Med*. 2026;394:1074-1083.
3. Yang, JH, Zhang DM, Wang K. Pathogenesis and research progress of OTOF gene related auditory neuropathy: a retrospective review. *Am J Transl Res*. 2025;17:1643-1650.
4. Azaiez H, Thorpe RK, Odell AM, et al. OTOF-related hearing loss. In: GeneReviews® [Internet]. Seattle (WA): University of Washington, Seattle; 1993. Initial posting: February 29, 2008 [updated March 13, 2025]. Available at: https://www.ncbi.nlm.nih.gov/books/NBK1251/. Accessed on April 23, 2026.

HISTORY

Type of Revision	Summary of Changes	Review Date
New Policy	--	04/29/2026
UCare P&T Review	Policy reviewed and approved by UCare P&T committee.	06/15/2026