

Name of Blue Advantage Policy:

Intratympanic Dexamethasone for the Treatment of Ménière's Disease and/or Sudden Hearing Loss

Policy #238

Latest Review Date: January 2025

Category: Medicine

BACKGROUND:

Blue Advantage medical policy does not conflict with Local Coverage Determinations (LCDs), Local Medical Review Policies (LMRPs) or National Coverage Determinations (NCDs) or with coverage provisions in Medicare manuals, instructions or operational policy letters. In order to be covered by Blue Advantage, the service shall be reasonable and necessary under Title XVIII of the Social Security Act, Section 1862(a)(1)(A). The service is considered reasonable and necessary if it is determined that the service is:

- 1. Safe and effective
- 2. Not experimental or investigational*;
- 3. Appropriate, including duration and frequency that is considered appropriate for the service, in terms of whether it is:
 - Furnished in accordance with accepted standards of medical practice for the diagnosis or treatment of the patient's condition or to improve the function of a malformed body member;
 - Furnished in a setting appropriate to the patient's medical needs and condition;
 - Ordered and furnished by qualified personnel;
 - One that meets, but does not exceed, the patient's medical need; and
 - At least as beneficial as an existing and available medically appropriate alternative.

*Routine costs of qualifying clinical trial services with dates of service on or after September 19, 2000, which meet the requirements of the Clinical Trials NCD, are considered reasonable and necessary by Medicare. Providers should bill **Original Medicare** for covered services that are related to **clinical trials** that meet Medicare requirements (Refer to Medicare National Coverage Determinations Manual, Chapter 1, Section 310 and Medicare Claims Processing Manual, Chapter 32, Sections 69.0-69.11).

POLICY:

Blue Advantage will treat intratympanic dexamethasone for the treatment of Ménière's disease as a covered benefit for the following:

- Patient has tried and failed conservative treatment such as
 - o Dietary salt restriction and diuretics.
 - o Treatment of allergies.
 - o Anticholinergics.
 - o Vestibular sedatives (e.g., Antivert).
 - High-dose oral steroids.

OR

- Patient has a medical **condition that prohibits the use of oral steroids**, including but not limited to the following:
 - o Diabetes mellitus;
 - o Immunosuppressed patients;
 - Hypertension;
 - o Active or latent peptic ulcer disease;
 - o Renal insufficiency;
 - o Osteoporosis;
 - o Myasthenia gravis;
 - o Some psychiatric disorders (e.g., severe depression or psychosis);
 - o Ocular herpes;
 - o Active tuberculosis:
 - Serious infections;
 - o Systemic fungal infections, varicella;
 - o Administration of liver virus vaccines;
 - o Pregnancy;
 - o Lactation;
 - o Known hypersensitivity or adverse reaction

Blue Advantage will treat intratympanic dexamethasone for the treatment of sudden hearing loss as a covered benefit for the following:

- Patient has tried and failed conservative treatments such as:
 - o Aspirin;
 - o Antiviral mediations;
 - o Diuretics:
 - Vasodilators;
 - o High dose oral steroids;

OR

- Patient has a medical **condition that prohibits the use of oral steroids**, including but not limited to the following:
 - o Diabetes mellitus;
 - o Immunosuppressed patients;

- o Hypertension;
- o Active or latent peptic ulcer disease;
- o Renal insufficiency;
- Osteoporosis;
- o Myasthenia gravis;
- o Some psychiatric disorders (e.g., severe depression or psychosis);
- Ocular herpes;
- o Active tuberculosis;
- Serious infections;
- o Systemic fungal infections, varicella;
- o Administration of liver virus vaccines;
- o Pregnancy;
- o Lactation;
- o Known hypersensitivity or adverse reaction.

Blue Advantage does not approve or deny procedures, services, testing, or equipment for our members. Our decisions concern coverage only. The decision of whether or not to have a certain test, treatment, or procedure is one made between the physician and their patient. Blue Advantage administers benefits based on the members' contract and medical policies. Physicians should always exercise their best medical judgment in providing the care they feel is most appropriate for their patients. Needed care should not be delayed or refused because of a coverage determination.

DESCRIPTION OF PROCEDURE OR SERVICE:

Ménière's disease, also known as endolymphatic hydrops, is a disorder of the inner ear of unknown origin. It is speculated that Ménière's disease may be an immune-mediated disorder. Symptoms include tinnitus, vertigo, heightened sensitivity to loud sounds, fluctuating hearing loss, headache, and aural fullness. In acute phases, nausea, vomiting, and disabling dizziness may occur. Usually, attacks are sudden and may last several hours. The disease usually lasts a few years and, in most cases, occurs in only one ear. Diagnosis is difficult because its symptoms are often present in other conditions.

Treatment initially consists of diuretics, elimination of nicotine and a low-sodium, non-caffeine diet to reduce fluid retention. Acute exacerbations may be treated with antiemetics, anti-vertigo medications and systemic steroids. When these medical and dietary treatments are unsuccessful, other medical and surgical interventions may be considered, which include labyrinthectomy, endolymphatic sac shunt or decompression, vestibular neurectomy, and intratympanic gentamicin (which ablates vestibular function).

Oral steroids are frequently employed in the treatment of sudden sensorineural hearing loss (SSHL) and autoimmune inner ear disease (AIED). Individuals who can tolerate systemic steroids are initially treated with oral steroids first. If individuals do not fully respond after two weeks of oral steroids, then inner ear perfusion with dexamethasone can be used. It is proposed that individuals who have a medical contraindication to steroids, such as diabetes, hypertension,

or peptic ulcer disease, can be treated primarily with direct inner ear perfusion while avoiding the systemic effects of the drug.

KEY POINTS:

The literature search for this policy was performed through January 7, 2025.

Summary of Evidence:

Intratympanic dexamethasone has been used for anti-inflammation and immunosuppression to decrease the incidence of acute attacks. Intratympanic dexamethasone may be considered in individuals who wish to avoid surgical procedures and systemic steroid use. Intratympanic dexamethasone injections are made via tympanostomy or myringotomy with or without placement of ventilation tubes. Disadvantages of intratympanic dexamethasone may include the need for repeated offices visits, potential infection, and potential persistent perforation of the tympanic membrane. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

Practice Guidelines and Position Statements:

American Academy of Otolaryngology-Head and Neck Surgery

In 2020, the American Academy of Otolaryngology-Head and Neck Surgery published a clinical practice guideline on Meniere's Disease.

STATEMENT 11. INTRATYMPANIC STEROID THERAPY: Clinicians may offer, or refer to a clinician who can offer, intratympanic (IT) steroids to patients with active Ménière's disease not responsive to noninvasive treatment. Option based on a systematic review and a randomized controlled trial with a preponderance of benefit over harm.

Grade C, based on 1 Cochrane review that concluded limited efficacy for disability score and 1 small RCT looking at dexamethasone and gentamicin with 90% symptom reduction.

U.S. Preventive Services Task Force Recommendations

Not applicable.

KEY WORDS:

Intratympanic, intratympanic dexamethasone, intratympanic steroids, IT dexamethasone, IT steroids, Ménière's disease, sudden hearing loss, sudden loss of hearing, MicroWick

APPROVED BY GOVERNING BODIES:

U.S. Food and Drug Administration has granted approval for Dexamethasone.

BENEFIT APPLICATION:

Coverage is subject to member's specific benefits. Group-specific policy will supersede this policy when applicable.

CURRENT CODING:

CPT Codes:

69801

Labyrinthotomy, with perfusion of vestibuloactive drug(s); transcanal

REFERENCES:

- 1. Banerjee A, Parnes LS. The biology of intratympanic drug administration and pharmacodynamics of round window drug absorption. Otolaryngol Clin N Am 2004; 27:1035-51.
- 2. Banerjee A, Parnes LS. Intratympanic Corticosteroids for sudden idiopathic sensorineural hearing loss. Otol Neurotol 2005; 26:878-81.
- 3. Barrs DM. Intratympanic corticosteroids for Ménière's disease and vertigo. Otolaryngol Clin N Am 2004; 37(5).
- 4. Basil M.N. Saeed, Mohammed Tawalbeh, Alyaa Farouk Al-Omari, Intratympanic dexamethasone in Meniere's disease, Egyptian Journal of Ear, Nose, Throat and Allied Sciences, Volume 17, Issue 2, 2016, Pages 63-69, ISSN 2090-0740, https://doi.org/10.1016/j.ejenta.2016.05.002.
- Basura, G.J., Adams, M.E., Monfared, A., Schwartz, S.R., Antonelli, P.J., Burkard, R., Bush, M.L., Bykowski, J., Colandrea, M., Derebery, J., Kelly, E.A., Kerber, K.A., Koopman, C.F., Kuch, A.A., Marcolini, E., McKinnon, B.J., Ruckenstein, M.J., Valenzuela, C.V., Vosooney, A., Walsh, S.A., Nnacheta, L.C., Dhepyasuwan, N. and Buchanan, E.M. (2020), Clinical Practice Guideline: Ménière's Disease. Otolaryngology—Head and Neck Surgery, 162: S1-S55. https://doi.org/10.1177/0194599820909438
- 6. Beyea, J. A., Instrum, R. S., Agrawal, S. K., & Parnes, L. S. (2017). Intratympanic Dexamethasone in the Treatment of Ménière's Disease: A Comparison of Two Techniques. Otology & neurotology: official publication of the American Otological Society, American Neurotology Society [and] European Academy of Otology and Neurotology, 38(6), e173–e178. https://doi.org/10.1097/MAO.0000000000001437
- 7. Chih-Yu Hu, Kuang-Hsu Lien, Shih-Lung Chen, Bang-Yan Zhang, Kai-Chieh Chan, Complications and prognosis associated with intra-tympanic steroid injection to treat sudden sensorineural hearing impairment, American Journal of Otolaryngology, Volume 43, Issue 1, 2022, 103221, ISSN 0196-0709, https://doi.org/10.1016/j.amjoto.2021.103221.
- 8. Choung YH, Park K, Shin YR and Cho MJ. Intratympanic dexamethasone injection for refractory sudden sensorineural hearing loss. Laryngoscope 2006; 116(5): 747-752.
- 9. Cochrane Review. Steroids for idiopathic sudden sensorineural hearing loss. www.medscape.com/viewarticle/534092 print.
- 10. Doyle KJ, Bauch C, Battista R, et al. Intratympanic steroid treatment: a review. Otol Neurotol 2004; 25(6):1034-39.
- 11. Garduño-Anaya MA, De Toledo HC, Hinojosa-González, et al. Dexamethasone inner ear perfusion by intratympanic injection in unilateral Ménière's disease: a two-year prospective, placebo-controlled, double-blind, randomized trial. Otolaryngol Head Neck Surg 2005; 133(2):285-94.

- 12. Hilton, A., McClelland, A., McCallum, R. et al. Duration of symptom control following intratympanic dexamethasone injections in Meniere's disease. Eur Arch Otorhinolaryngol 279, 5191–5198 (2022). https://doi.org/10.1007/s00405-022-07368-w
- 13. Ho HG. Effectiveness of intratympanic dexamethasone injection in sudden-deafness patients as salvage treatment. Laryngoscope 2004; 114(7):1184-9.
- 14. IOM (Institute of Medicine). 2011. Clinical Practice Guidelines We Can Trust. Washington, DC: The National Academies Press
- 15. Leng, Y., Liu, B., Zhou, R., Liu, J., Liu, D., Zhang, S. L., & Kong, W. J. (2017). Repeated courses of intratympanic dexamethasone injection are effective for intractable Meniere's disease. Acta oto-laryngologica, 137(2), 154–160. https://doi.org/10.1080/00016489.2016.1224920
- 16. Light JP. Transtympanic perfusion: indications and limitations. Curr Opin Otolaryngol Head Neck Surg 2004; 12(5):378-83.
- 17. Lustig LR. The history of intratympanic drug therapy in otology. Otolaryngol Clin N Am 2004; 37:1001-17.
- 18. Jumaily, M., Faraji, F., & Mikulec, A. A. (2017). Intratympanic Triamcinolone and Dexamethasone in the Treatment of Ménière's Syndrome. Otology & neurotology: official publication of the American Otological Society, American Neurotology Society [and] European Academy of Otology and Neurotology, 38(3), 386–391. https://doi.org/10.1097/MAO.000000000001311
- 19. Maksoud, A.A., Hassan, D.M., Nafie, Y. et al. Intratympanic dexamethasone injection in Meniere's disease. Egypt J Otolaryngol 31, 128–134 (2015).
- 20. McEvoy GK, ed. AHFS: Drug Information. Bethesda, MD: American Society of Health-System Pharmacist; 2004:2885-98.
- 21. Phillips J, et al. Efficacy of Intratympanic OTO-104 for the Treatment of Ménière's Disease: The Outcome of Three Randomized, Double-Blind, Placebo-Controlled Studies. Otol Neurotol. 2023 Jul 1;44(6):584-592.
- 22. Pradhan P, Lal P, Sen K. Long Term Outcomes of Intratympanic Dexamethasone in Intractable Unilateral Meniere's Disease. Indian J Otolaryngol Head Neck Surg. 2019 Nov;71(Suppl 2):1369-1373. doi: 10.1007/s12070-018-1431-3. Epub 2018 Jun 24.
- 23. Rauch SD. Intratympanic steroids for sensorineural hearing loss. Otolarynogol Clin North Am 2004; 37(5):1061-74.
- 24. Ren H, Yin T, Lu Y, Kong W, Ren J. Intratympanic dexamethasone injections for refractory Meniere's disease. Int J Clin Exp Med. 2015 Apr 15;8(4):6016-23.
- 25. Seidman MD & Vivek P. Intratympanic treatment of hearing loss with novel and traditional agents. Otolarynogol Clin North AM 2004; 37)5).
- 26. Selivanova OA, Gouveris H, Victor A, et al. Intratympanic dexamethasone and hyaluronic acid in patiens with low-frequency and Ménière's-associated sudden sensorineural hearing loss. Otol Neurotol 2005; 26:890-95.
- 27. Slattery WH, Fisher LM, Iqbal Z, et al. Intratympanic steroid injection for treatment of idiopathic sudden hearing loss. Otolaryngol Head Neck Surg 2005; 133(2):251-9.
- 28. Sudden deafness treatment trial (SSNHL). www.clinicaltrials.gov/study/NCT00097448?cond=sudden%20deafness%20treatment%2 0trial&rank=1.
- 29. Weber PC. Sudden sensorineural hearing loss in adults 2024. www.uptodate.com/contents/sudden-sensorineural-hearing-loss-in-adults-evaluation-and-

- management?search=Sudden%20deafness%20treatment%20trial%20(SSNHL&source=s earch result&selectedTitle=1~150&usage type=default&display rank=1.
- 30. Xenellis J, Papadimitriou N, et al. Intratympanic steroid treatment in idiopathic sudden sensorineural hearing loss: A control study. Otolaryngology Head and Neck Surgery, June 2006; 134(6): 940-945.

POLICY HISTORY:

Adopted for Blue Advantage, May 2006

Available for comment May 30-July 13, 2006

Medical Policy Group, April 2008

Medical Policy Group, April 2010

Medical Policy Group, December 2010

Medical Policy Group, September 2012: Effective September 14, 2012, this policy is no longer scheduled for regular literature reviews and updates.

Medical Policy Group, October 2013

Medical Policy Group, November 2019

Medical Policy Group, March 2021: Reviewed by consensus. No new published peer-reviewed literature is available that would alter the coverage statement in this policy.

Medical Policy Group, January 2023: Reviewed by consensus. No new published peer-reviewed literature is available that would alter the coverage statement in this policy.

UM Committee, December 2023: Policy approved by UM Committee for use for Blue Advantage business.

Medical Policy Group, February 2024: Reviewed by consensus. No new published peer-reviewed literature is available that would alter the coverage statement in this policy.

UM Committee, February 2024: Annual review of policy approved by UM Committee for use for Blue Advantage business.

Medical Policy Group, January 2025

UM Committee, January 2025: Annual review of policy approved by UM Committee for use for Blue Advantage business.

This medical policy is not an authorization, certification, explanation of benefits, or a contract. Eligibility and benefits are determined on a case-by-case basis according to the terms of the member's plan in effect as of the date services are rendered. All medical policies are based on (i) research of current medical literature and (ii) review of common medical practices in the treatment and diagnosis of disease as of the date hereof. Physicians and other providers are solely responsible for all aspects of medical care and treatment, including the type, quality, and levels of care and treatment.

This policy is intended to be used for adjudication of claims (including pre-admission certification, pre-determinations, and pre-procedure review) in Blue Cross and Blue Shield's administration of plan contracts.