Molina Clinical Policy
Dexycu (dexamethasone intraocular suspension): Policy No. 342

Last Approval: 4/13/2023
Next Review Due By: April 2024

DISCLAIMER

This Molina Clinical Policy (MCP) is intended to facilitate the Utilization Management process. Policies are not a supplementation or recommendation for treatment; Providers are solely responsible for the diagnosis, treatment, and clinical recommendations for the Member. It expresses Molina's determination as to whether certain services or supplies are medically necessary, experimental, investigational, or cosmetic for purposes of determining appropriateness of payment. The conclusion that a particular service or supply is medically necessary does not constitute a representation or warranty that this service or supply is covered (e.g., will be paid for by Molina) for a particular Member. The Member's benefit plan determines coverage – each benefit plan defines which services are covered, which are excluded, and which are subject to dollar caps or other limits. Members and their Providers will need to consult the Member's benefit plan to determine if there are any exclusion(s) or other benefit limitations applicable to this service or supply. If there is a discrepancy between this policy and a Member's plan of benefits, the benefits plan will govern. In addition, coverage may be mandated by applicable legal requirements of a State, the Federal government or CMS for Medicare and Medicaid Members. CMS's Coverage Database can be found on the CMS website. The coverage directive(s) and criteria from an existing National Coverage Determination (NCD) or Local Coverage Determination (LCD) will supersede the contents of this MCP and provide the directive for all Medicare members. References included were accurate at the time of policy approval and publication.

OVERVIEW

Post-Operative Inflammation Following Cataract Surgery. An estimated 3.7 million cataract surgeries were performed annually in the United States (Ianchulev et al. 2016), with data suggesting that the incidence of cataract surgery will continue to increase (Gollogly et al. 2013). Mechanical trauma during ocular surgery, such as membrane disruption and tissue injury, causes an inflammatory response. Postoperative pain, edema, erythema, anterior chamber (AC) cells and flare, secondary glaucoma, posterior synechia, and, potentially, cystoid macular edema are all increased by inadequately controlled inflammation (Aptel et al., 2017; Salinger et al., 2019). Controlling postoperative inflammation is critical for achieving a positive outcome after cataract surgery.

The current standard of care for treating post-operative inflammation generally involves multiple postoperative eyedrops after surgery, including a combination of steroids, antibiotics, and non-steroidal eye drops with a duration of 4 to 6 weeks. However, a regimen of multiple post-operative eyedrops with a complex regimen may create a significant burden on patients and lead to non-adherence of the postoperative regimen, particularly for patients who are elderly and may have patient-related challenges with the administration of several postoperative eyedrops due to dexterity, poor eyesight after cataract surgery, or compromised cognitive function.

Corticosteroids are generally administered topically to treat postoperative inflammation however these agents can also be administered intravitreally, intracamerally, subtenonally, or subconjunctivally. Intracameral dexamethasone has the advantage of delivering a corticosteroid via a single administration after the completion of surgery, eliminating the potential for compliance problems that can compromise postoperative treatment outcomes when patients self-administer eye drops. However, there are several adverse effects associated with intracameral administration that are not factors in non-invasive topical administration, such as when placing a biodegradable sustained-release system, and may include the possibility of iris prolapse, surgical hyphema, focal peripheral anterior synechiae, and implant migration. Intracameral dexamethasone is not a replacement for topical medications as the standard management for postoperative inflammation, but it provides an additional alternative to manage postoperative inflammation after routine cataract surgery.

Dexycu (dexamethasone intraocular suspension) 9% for intraocular administration
Single-dose, sustained-release, intracameral steroid for the treatment of postoperative inflammation

Dexycu is a long-acting, intracameral biodegradable, extended-release formulation of dexamethasone 9% that provides the cataract surgeon the option of a single administration of a corticosteroid. Dexycu treatment is applied as a single intracameral injection using the Verisome™ drug delivery technology to deliver a tapering dose of steroid post-surgery. This is advantageous to patients with dexterity issues who are prohibited from using corticosteroid eye drops and individuals who have previously failed or has a contraindication to post-operative treatment with corticosteroid ophthalmic drops. Non-compliance and dosing errors associated with the conventional practice of self-administration of medicated eye drops multiple times a day is also eliminated. However, despite the benefits of convenience, there is a lack of evidence and data to confirm the effectiveness of Dexycu over other more cost-effective interventions (Donnenfeld, et al. 2018).

COVERAGE POLICY

Dexamethasone intraocular suspension 9% (Dexycu) for the treatment of ocular postoperative inflammation **may be considered medically necessary** when **ALL** of the following clinical criteria are met:

1. Prescribed for Member who will undergo ocular surgery and requires treatment for postoperative inflammation;

AND

2. Member is unable to use corticosteroid eye drops due to **ONE** of the following conditions:
   a. Post-operative treatment with corticosteroid ophthalmic drops has previously failed or is contraindicated; **OR**
   b. Dexterity issues prohibiting member from using corticosteroid eye drops; **OR**
   c. Other medical/clinical rationale supported by documentation.

AND

3. Documentation/attestation required:
   a. Member has been informed about the potential adverse effects of Dexycu, including increase in intraocular pressure (IOP), delayed healing, infection exacerbation, and cataract progression; **AND**
   b. Requested intravitreal implant for use in affected eye: right eye or left eye.

LIMITATIONS AND EXCLUSIONS

The following are considered **contraindications/exclusions** based on insufficient evidence:

1. Hypersensitivity to dexamethasone, other corticosteroids, or any component of the formulation

The following are considered **experimental, investigational, and unproven** based on insufficient evidence:

1. Any indications other than those listed above
   There are case series and case reports concerning the use of intravitreal dexamethasone for several disease processes; however, there are no long-term well-conducted studies to demonstrate the safety and efficacy of Dexycu for these indications at this time; thus, this Clinical Policy considers any indication other than that which is listed above experimental, investigational, and unproven.

CONTINUATION OF THERAPY: Reauthorization is not allowed for this single dose, dexamethasone intraocular suspension 9% (Dexycu) treatment. All requests must meet initial therapy criteria.

DURATION OF APPROVAL: ONE time authorization.

PRESCRIBER REQUIREMENTS: Prescribed by board-certified ophthalmologists or retinal specialist, retinal surgeon experienced in the administration of intraocular injections.

AGE RESTRICTIONS: 18 years of age or older

DOSING CONSIDERATIONS: Ocular post-operative inflammation (9% suspension), intraocular: One intraocular injection of 0.005 mL (517 mcg) of 9% dexamethasone (equivalent to 517 micrograms) administered into the posterior chamber inferiorly behind the iris at the end of ocular surgery.

NOTE: Dexycu is not a part of the actual ocular surgical procedure, which is complete cataract removal and placement of an intraocular lens in the capsular bag.

QUANTITY LIMITATIONS: ONE time authorization of ONE intraocular injection 0.005 mL of 9% dexamethasone (equivalent to 517 micrograms) as a single dose per eye per surgery.

ADMINISTRATION

1. Dexycu is considered a **provider-administered** procedure to be performed in a surgery center or other outpatient surgical settings by an ophthalmologist, retinal specialist, or retinal surgeon experienced in the administration of intraocular injections; **AND**
2. Refer to MHI Policy & Procedure: *Specialty Medication Administration Site of Care Policy: MHI Pharm 11.*

DOCUMENTATION REQUIREMENTS. Molina Healthcare reserves the right to require that additional documentation be made available as part of its coverage determination; quality improvement; and fraud; waste and abuse prevention processes. Documentation required may include, but is not limited to, patient records, test results and credentials of the provider ordering or performing a drug or service. Molina Healthcare may deny reimbursement or take additional appropriate action if the documentation provided does not support the initial determination that the drugs or services were medically necessary, not investigational, or experimental, and otherwise within the scope of benefits afforded to the member, and/or the documentation demonstrates a pattern of billing or other practice that is inappropriate or excessive.

DRUG INFORMATION

ROUTE OF ADMINISTRATION: Intraocular injection (intracameral)

DRUG CLASS: Anti-inflammatory Agent, Corticosteroid, Ophthalmic

FDA-APPROVED USES: Ocular postoperative inflammation

COMPENDIAL APPROVED OFF-LABELED USES: None

SUMMARY OF MEDICAL EVIDENCE

The safety and efficacy of dexamethasone intraocular suspension 9% (Dexycu) for intracameral administration in two dosages in patients undergoing cataract surgery were evaluated in a randomized, double-masked, placebo-controlled trial. The study included 394 patients (n = 394) who received either Dexycu 342 mcg (n=158) or 517 mcg (n = 156) or a placebo (n = 80) administered by a physician at the end of the surgical procedure (Donnenfeld et al. 2018). The use of ocular, periocular, or systemic corticosteroids, immunomodulators, alkylating agents, or ocular topical non-steroidal anti-inflammatory drugs (NSAIDs) was not permitted through day 30 unless necessary; glaucoma and other ocular medications (including topical cyclosporine but excluding ocular topical NSAIDs) could be administered peri- and post-operatively as indicated. Patients who received corticosteroids or immunosuppressants for any condition (ocular or systemic) were observed for 90 days after surgery. The primary outcome measure was the AC cell clearance on post-operative day 8. Secondary outcomes in the study eyes included AC flare and AC cell plus flare clearance. Adverse events (AEs) were also evaluated.

- On post-op day eight, 57% of patients in the 342µg and 60% of patients in the 517µg Dexycu groups (n=94/156) had cleared AC cells, compared to 20% in the placebo group (n=16/80). At days 3, 8, 15 and 30, the percentage of patients receiving ocular steroid or a NSAID rescue therapy was considerably lower in the 342 and 517 mcg treatment groups compared to placebo.
- AEs were comparable across the three groups, with no serious AEs reported up to post-operative day 90. Dexycu-treated eyes had IOP increases of at least 10mmHg compared to 13% of placebo-treated eyes. IOP did not exceed 21mmHg in any measurement across the groups. Other treatment-emergent AEs that occurred in 15% of eyes included corneal edema, pain, inflammation in the AC, and dry eye. Inflammatory AEs such as macular edema, eye inflammation, and iritis were more common in placebo-treated eyes. CME as diagnosed by OCT was reported in 3.8% of placebo-treated and 3.2% of Dexycu-treated eyes.

Donnenfeld et al. (2018) compare the safety and efficacy of IBI-10090 anterior chamber intracameral dexamethasone drug-delivery suspension (Dexycu) with those of prednisolone acetate 1.0% ophthalmic drops in treating inflammation with intracameral dexamethasone after cataract surgery. The prospective, randomized, double-masked, multicenter analysis included 126 patients on dexamethasone and 55 patients on prednisolone. At the conclusion of cataract surgery, patients were randomized to either a 5µL injection of 517µg dexamethasone in the anterior eye chamber (Dexycu) or topical prednisolone 1.0% drops (1 drop 4 times daily for 3 weeks). The postoperative follow-up was 90 days. The primary outcome was safety, evaluated by the incidence and severity of AEs. Exploratory measures were AC cell, AC flare, and AC cell–flare clearing. By day 8 post-op, 51.6% of dexamethasone intraocular suspension eyes and 50.9% of prednisolone eyes had cleared AC cells, and more than 98% of eyes had cleared by 90 days. The AC flare and AC cell-flare clearing results were comparable. Of dexamethasone patients, 68.7% strongly agreed that not having to use eyedrops was very convenient; 39.2% were using prednisolone. Two serious AEs unrelated to treatment were reported. The difference in endothelial cell density between the two groups was not significant. The most common AEs were increased IOP (11.1%), iritis (6.3%) and systemic (7.9% IBI-10090 group; 10.9% prednisolone group). The safety and efficacy of dexamethasone intraocular

suspension and prednisolone 1.0% were comparable; however, patients preferred intracameral dexamethasone over topical steroid drops.

National and Specialty Organizations

Corticosteroids and NSAIDs have traditionally been used to treat inflammation prophylactically as well as post-operatively; however, currently there are no established guidelines or consensus for the treatment of inflammation induced by cataract surgery. Due to the lack of sufficient evidence from randomized controlled studies, preferred postoperative protocols for managing inflammation and pain after cataract surgery and other intraocular procedures have not been established (Aptel et al. 2017).

The **American Academy of Ophthalmology (AAO)** published a guideline on *Cataract in the Adult Eye Preferred Practice Pattern (PPP).* The PPP guidelines indicate that "medication regimens vary among practitioners….Topical corticosteroids and NSAIDs are also used for control of postoperative inflammation, but there is insufficient high-level evidence to compare these interventions (Juthani et al. 2017) making it the decision of the operating surgeon to use one or both of these medication classes. Complications of postoperative medications include elevated IOP with corticosteroids and allergic reactions to antibiotics."

CODING & BILLING INFORMATION

CPT Codes – N/A

HCPCS Code

HCPCS	Description
J1095	Injection, dexamethasone 9%, intraocular, 1 mcg

AVAILABLE DOSAGE FORMS: 9% intraocular suspension equivalent to dexamethasone 103.4 mg/mL in a single-dose vial provided in a kit

CODING DISCLAIMER. Codes listed in this policy are for reference purposes only and may not be all-inclusive. Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement. Listing of a service or device code in this policy does not guarantee coverage. Coverage is determined by the benefit document. Molina adheres to Current Procedural Terminology (CPT®), a registered trademark of the American Medical Association (AMA). All CPT codes and descriptions are copyrighted by the AMA; this information is included for informational purposes only. Providers and facilities are expected to utilize industry standard coding practices for all submissions. When improper billing and coding is not followed, Molina has the right to reject/deny the claim and recover claim payment(s). Due to changing industry practices, Molina reserves the right to revise this policy as needed.

APPROVAL HISTORY

04/13/2023	**MCPC**	Policy reviewed. No changes to criteria. Updated references.
04/13/2022	**MCPC**	Policy reviewed; no changes to criteria; updated Summary of Medical Evidence and Reference sections.
04/05/2021	**MCPC**	Policy reviewed and updated, no changes in coverage criteria, updated references. Content update includes: Added information on the phase 3 prospective randomized open-label study Donnenfeld, et al. (2018) supporting criterion #4 of corticosteroid eye drops.
Q2 2020	**P&T**	Policy reviewed and updated, no changes in coverage criteria, updated references.
5/29/2019	**MCPC**	New policy. IRO Peer Review. 5/6/2019. Practicing physician board certified in ophthalmology.

REFERENCES

Government Agencies

1. Centers for Medicare and Medicaid Services (CMS). Medicare coverage database. Available from CMS. Accessed February 2023.
   - National coverage determination (NCD) – Verteporfin (80.3.1). Available from CMS. Effective Date April 1, 2004. February 2022.
2. ClinicalTrials.gov. National Library of Medicine; 2000 Feb 29 - [cited February 2019]. Available from ClinicalTrials.gov.

Prescribing Information and Drug Compendia

1. Dexycu (dexamethasone) [prescribing information]. Watertown, MA: EyePoint Pharmaceuticals US, Inc; June 2020
2. Clinical Pharmacology [database online]. Elsevier; 2023. Available from ClinicalPharmacology. Registration and login required. Accessed February 2023. Registration and login required.
3. Drug Facts and Comparisons. Facts & Comparisons eAnswers [online]. UpToDate 2023. Available from Wolters Kluwer Health, Inc. Accessed February 2023. Registration and login required.

Peer Reviewed Publications

1. Aptel F, Colin C, Kaderli S, et al. Management of postoperative inflammation after cataract and complex ocular surgeries: a systematic review and Delphi survey. Br J Ophthalmol. 2017;101(11):1-10. doi: 10.1136/bjophthalmol-2017-310324.
2. Donnenfeld E, Holland E. Dexamethasone intracameral drug-delivery suspension for inflammation associated with cataract surgery: a randomized, placebo-controlled, Phase III trial. Ophthalmology. 2018;125(6):799-806. doi: 10.1016/j.ophtha.2017.12.029. Epub 2018 Feb 13. Erratum in: Ophthalmology. 2018 Oct;125(10):1664. PMID: 29397189.
3. Donnenfeld ED, Solomon KD, Matossian C. Safety of IBI-10090 for inflammation associated with cataract surgery: Phase 3 multicenter study. Journal of Cataract & Refractive Surgery. 2018;44:1236-46. DOI: 10.1016/j.jcrs.2018.07.015
4. Juthani VV, Clearfield E, Chuck RS. Non-steroidal anti-inflammatory drugs versus corticosteroids for controlling inflammation after uncomplicated cataract surgery. Cochrane Database Syst Rev. 2017;7:CD010516. doi: 10.1002/14651858.CD010516.pub2.
5. Salinger CL, Gaynes BI, Rajpal RK. Innovations in topical ocular corticosteroid therapy for the management of postoperative ocular inflammation and pain. Am J Manag Care. 2019;25(12 Suppl):S215–S226. PMID: 31419092.
6. Shah TJ, Conway MD, Peyman GA. Intracameral dexamethasone injection in the treatment of cataract surgery induced inflammation: design, development, and place in therapy. Clin Ophthalmol. 2018;12:2223-2235. Published 2018 Nov 1. doi:10.2147/OPTH.S165722.

National and Specialty Organizations

1. Miller KM, Oetting TA, American Academy of Ophthalmology (AAO), et al. Cataract in the adult eye preferred practice pattern. Ophthalmology. 2021 Nov. doi: https://doi.org/10.1016/j.ophtha.2021.10.006. Accessed February 2023.

Other Authoritative Publications

1. [DEFINITION] Ianchulev T, Litoff D, Ellinger D, Stiverson K, Packer M. Office-based cataract surgery: Population health outcomes study of more than 21,000 cases in the United States. Ophthalmology. 2016 Apr;123(4):723-8. doi: 10.1016/j.ophtha.2015.12.020. Epub 2016 Jan 22. PMID: 26804760.
2. [DEFINITION] Gollogly HE, Hodge DO, St Sauver JL, Erie JC. Increasing incidence of cataract surgery: Population-based study. J Cataract Refract Surg. 2013 Sep;39(9):1383-9. doi: 10.1016/j.jcrs.2013.03.027. Epub 2013 Jun 29.
3. Duan P, Liu Y, Li J. The comparative efficacy and safety of topical non-steroidal anti-inflammatory drugs for the treatment of anterior chamber inflammation after cataract surgery: A systematic review and network meta-analysis. Graefes Arch Clin Exp Ophthalmol. 2017;255(4):639–649. doi: 10.1007/s00417-017-3599-8. Epub 2017 Jan 27.