

**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**

**Uveitis** is a group of intraocular inflammatory disorders affecting the middle layer of the eye (the uvea), which can cause significant visual impairment and partial or complete loss of vision. Non-infectious uveitis may be due to an underlying inflammatory condition, an autoimmune disorder, or because of trauma to the eye. In many cases, the cause remains uncertain. It is estimated that only 10 in 100,000 adults and 3 in 100,000 children are diagnosed with noninfectious posterior uveitis (Thorne et al., 2016). The goals of therapy in noninfectious posterior uveitis are to eliminate intraocular inflammation, relieve discomfort, prevent visually significant complications, minimize recurrences, and prevent the occurrence of sight-threatening complications secondary to the disease or the therapy itself. The mainstay of treatment for intermediate and posterior uveitis is systemic or local corticosteroids. Posterior uveitis is challenging to treat and often unresponsive to topical administration of steroids due to inadequate therapeutic drug penetration into the posterior ocular tissues (Tan et al., 2016). Long-term systemic steroid therapy, although highly effective, is associated with various serious adverse effects and intolerances. Immunosuppressive drugs and biological agents such as tumor necrosis factor inhibitors may be used as 'steroid sparing' treatments; however, most of these treatments also present adverse effect profiles. While topical corticosteroids administered as eye drops are better tolerated than systemic corticosteroids, they are more effective for anterior uveitis than for posterior uveitis. Side effects of local ophthalmic corticosteroids include a high rate of cataracts and complications due to increased intraocular pressure (IOP). Other forms of local therapy for corticosteroids include local injection (sub-Tenon's or intravitreal) and intraocular drug implants [i.e., dexamethasone intravitreal implant (Ozurdex), fluocinolone acetonide intravitreal implant (Retisert, Iluvien)].

**Diabetic macular edema (DME)** is macular thickening secondary to diabetic retinopathy (DR) that may be present in any of the stages of this disease. DME can be present in all stages of DR and is the most common cause of vision loss in patients with DR, with an increasing prevalence tied to type 2 diabetes mellitus. Inflammation plays a key role in the pathogenesis of DME. The breakdown of the blood–retinal barrier involves the expression of inflammatory cytokines and growth factors, including vascular endothelial growth factor (VEGF). Although the exact mechanism of corticosteroid on ocular tissues is not fully understood, steroids have demonstrated efficacy in the treatment of DME by inhibiting many of the processes known to be involved in the progression of DME through anti-inflammatory properties and VEGF inhibition. Visual acuity and macular thickness are two central parameters in the follow-up of patients with DME. Three synthetic corticosteroids (dexamethasone, fluocinolone, and triamcinolone) have been used in the treatment of DME. Corticosteroids have a broad spectrum of biologic action and have been noted to inhibit some of the processes known to be involved in the progression of DME through anti-inflammatory properties and VEGF inhibition, which results in anti-vascular permeability and antiangiogenic effects and stabilizes retinal capillaries (Darwich et al., 2018). Ozurdex (dexamethasone intravitreal implant) is the first intravitreal injectable drug implant approved for the treatment of DME.

Other treatment options for DME include intravitreal anti-VEGF and photocoagulation (laser therapy). Macular laser photocoagulation is effective in preserving vision by slowing the progression of retinopathy and reducing visual loss but has a limited effect in restoring lost vision. Although first-line treatment of DME with anti-VEGF agents, with or without laser, has become the standard treatment for DME, there is no consensus on the treatment of patients who do not respond to, or are contraindicated to anti-VEGF agents. Focal photocoagulation is an established treatment for DME and can be used as initial therapy in poorly compliant patients with DME, who may not return for follow-up

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appointments, or as adjunctive therapy for patients who do not respond to or have an incomplete response to anti-VEGF therapy (UTD, 2021). The efficacy of intravitreal injection of anti-VEGF has been proven in several RCTs (Randomized controlled trials), which reported better outcomes compared to macular laser photocoagulation in DME (Blinder et al., 2017; Lazic et al., 2014).

**Retinal vein occlusion (RVO)** is a blockage of a portion of the venous circulation that drains the retina and is classified according to where the occlusion is located. Pressure builds up in the capillaries and results in hemorrhage and leakage of fluid and blood, which can lead to macular edema with leakage near the macula. Central retinal vein occlusion (CRVO) occurs when the blockage is in the main vein in the retina. Branch retinal vein occlusion (BRVO) occurs when the blockage is in one of the smaller veins attached to the main vein in the retina. The prognosis of RVOs varies according to the site of the occlusion and the type of occlusion (ischemic or nonischemic). In general, more-distal RVOs with less occlusion have a better prognosis than more-proximal RVOs with greater ischemia. VEGF increases vessel permeability by increasing the phosphorylation of tight junction proteins and is an important mediator of the blood-retinal barrier breakdown leading to vascular leakage and macular edema (EURETINA, 2019). Therefore, therapy that inhibits VEGF is an effective therapeutic modality that targets the underlying pathogenesis of macular edema. Pharmacologic treatment with intravitreal anti-VEGF agents is a first-line therapy for macular edema (Fraser et al., 2021). Intravitreal glucocorticoid therapy is considered an alternative for patients with edema refractory to anti-VEGF monotherapy. Corticosteroids inhibit the expression of VEGF, a cytokine that is expressed at increased concentrations in macular edema and is a potent promoter of vascular permeability.

**Ozurdex (biodegradable dexamethasone intravitreal implant)** is a sustained-release intravitreal implant of 0.7mg dexamethasone designed to release over a 6-month period. Dexamethasone is combined with biodegradable material in the form of a small rod, which is injected into the vitreous cavity using a customized, single-use, 22-gauge applicator. Dexamethasone is released in a biphasic manner over 6 months, with higher concentrations released for the first 6 weeks, followed by lower concentrations for the following months. After this time, the implant dissolves into CO<sub>2</sub> and H<sub>2</sub>O, leaving no residue within the eye. The mean number of Ozurdex injections reported in the literature is 4.2 injections per year, and more than 6 consecutive injections have been reported (Haller et al., 2011 & 2010). Ozurdex is indicated for the treatment of DME, macular edema associated with RVO, and non-infectious posterior uveitis. Ozurdex received FDA (Food and Drug Administration) approval based on MEAD trial results, in which administration was every 6 months and injections mean number over 3 years was 4.1 (Boyer et al., 2014).

An intravitreal implant administering sustained-release corticosteroid is a treatment option for patients who are intolerant or refractory to conventional medications, or who are likely to develop significant adverse effects from systemic corticosteroids. Continuous local steroid release via an implant may reduce or eliminate the need for long-term systemic therapy or frequent intravitreal injections; however, it should be noted that the device's insertion or surgical implantation carries risks such as endophthalmitis, ocular inflammation, and retinal detachments. Furthermore, prolonged use of ophthalmic dexamethasone causes increased IOP, glaucoma with damage to the optic nerve, defects in visual acuity and visual field, posterior subcapsular cataract formation, secondary ocular infection from pathogens (including herpes simplex), and perforation of the globe where there is thinning of the cornea or sclera. Cataracts are a frequent complication of long-term corticosteroid therapy and should be considered regardless of the route of administration.

## COVERAGE POLICY

Ozurdex (dexamethasone intravitreal implant) for treatment of patients with non-infectious uveitis, macular edema following retinal vein occlusion, and DME **may be considered medically necessary** when **ALL** the following clinical criteria are met:

1. Definitive diagnosis of **ONE** of the following:

a. DME; **or**

*Informational Note: DME is indicated by the presence of clinically significant macular edema as defined by the Early Treatment Diabetic Retinopathy Study (ETDRS): Retinal thickening within 500 micrometers (µm) of the center of the fovea, OR Hard exudates within 500 µm (≤ 500 micrometers) of the fovea center with adjacent retinal thickening, OR At least 1 disc area of retinal thickening, any part of which is within 1 disc diameter of the center of the fovea*

b. Macular Edema due to BRVO or CRVO; **or**

c. Chronic (duration of 1 year or more) Non-infectious *Posterior Segment Uveitis*. [OBJ]

**NOTE:** Ozurdex is not for use in *anterior* uveitis or in uveitis caused by infection.

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#### AND

2. Diagnosis and disease progression (history of progressive visual loss or worsening of anatomic appearance) as confirmed/determined by fluorescein angiography, Optical Coherence Tomography (OCT) or Scanning Computerized Ophthalmic Diagnostic Imaging (SCODI)

**MOLINA REVIEWER:** Baseline labs (prior to treatment with requested implant) should be noted in member's profile to reference for review if reauthorization of treatment is requested

#### AND

3. Vision impairment (sight-threatening or sight-losing) caused by condition. Documentation required.

#### AND

4. Inadequate response, intolerance, contraindication, or clinical rationale supporting the inappropriateness of the following therapies as applicable to member's specific diagnosis (**a or b or c**). Documentation of ALL therapy with dates of failed therapy or clinical events required.

##### a. DME

- i. ONE of the following VEGF inhibitors: bevacizumab (Avastin): PREFERRED/NO PA REQUIRED; aflibercept (Eylea), brolucizumab (Beovu); pegaptanib (Macugen), ranibizumab (Lucentis); **AND**
- ii. Laser Photocoagulation

#### OR

##### b. Macular Edema due to BRVO and CRVO

- i. ONE of the following VEGF inhibitors: bevacizumab (Avastin): PREFERRED/NO PA REQUIRED; aflibercept (Eylea), brolucizumab (Beovu); pegaptanib (Macugen), ranibizumab (Lucentis); **AND**
- ii. FOR CRVO ONLY (BRVO not required): Intravitreal glucocorticoids (e.g., Triamcinolone acetonide, intravitreal injection)

*Informational Note: Randomized trials and cohort studies have found that intravitreal glucocorticoid injections may improve visual acuity in patients with BRVO (SCORE-BRVO) and with CRVO (SCORE-CRVO). The SCORE-CRVO trial suggests that patients with visual acuity loss from macular edema secondary to CRVO may benefit, relative to observation alone, from treatment with 1 mg of preservative-free triamcinolone at baseline and at four-month intervals as needed for one year.*

#### OR

##### c. Non-infectious Posterior Segment Uveitis

- i. Systemic corticosteroid OR periocular or intravitreal corticosteroid therapy (e.g., Triamcinolone acetonide), **AND**
- ii. Non-Biologic Immunosuppressive Therapy [Antimetabolites (e.g., azathioprine, mycophenolate mofetil (CellCept; Myfortic), or methotrexate) OR Calcineurin inhibitors (e.g., cyclosporine or tacrolimus)]

#### AND

3. Member was previously treated with a course of corticosteroids and did not have a clinically significant rise in intraocular pressure; **AND**
4. Documentation/attestation required for **ALL** the following:
  - a. Member has been informed about the potential adverse effects of a corticosteroid intravitreal implant, including cataracts, increased intraocular pressure, or hypotony, endophthalmitis, and risk of need for additional surgical procedures; **AND**
  - b. Requested dexamethasone intravitreal implant (Ozurdex) is NOT intended for administration with other intravitreal implants (e.g., fluocinolone acetonide intravitreal implant [Iluvien/Retisert])

**MOLINA REVIEWER:** Verify medical/pharmacy claims data and medical history/chart notes for concurrent intravitreal implants

## CONTINUATION OF THERAPY

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1. Reauthorization request is for the same eye as initial authorization

**NOTE:** The continuation of therapy criteria is for the same treated eye in which authorization was obtained. If a member has developed condition in an untreated eye, Prescriber must submit new request according to the 'Initial Coverage' criteria.

#### AND

2. Members continued need for Ozurdex and response to treatment as determined by fluorescein angiography, OCT or SCODI (including disease progression or history of progressive visual loss or worsening of anatomic appearance) has been formally assessed and documentation submitted for review.

**NOTE:** Ozurdex treatment should be discontinued (and patient monitored) in absence of macular edema or stable visual acuity. Treatment (and monitoring intervals) may be resumed at prescribing specialist's discretion and submission of authorization request with presence of macular edema or visual acuity is decreasing at any time.

**NOTE:** Retreatment is usually not necessary for patients that have maintained vision improvement. Exceptions may be reviewed on a case-by-case basis with relevant supporting documentation from Prescriber.

#### AND

3. **ONE** of the following is applicable based on member's diagnosis:
  - a. DME: Member had an initial positive, but subsequently has experienced decreased vision and/or an increase in retinal thickness, secondary to recurrent or worsening DME; **OR**
  - b. Macular Edema due to CRVO or BRVO: Member experienced an initial positive response to treatment, but has subsequently experienced a loss in visual acuity; **OR**
  - c. Non-infectious Posterior Segment Uveitis: Member experienced an initial positive response to treatment defined as the following, but has subsequently experienced a loss in visual acuity:
    - o Greater than (>) 15 letters (3 lines) in BCVA from baseline after 12 weeks following administration or the patient achieves driving visual acuity; **OR**
    - o Visual acuity is maintained to at least 50% of the best recorded following diagnosis of uveitis

#### AND

4. Member is likely to benefit from re-treatment without being exposed to significant risk, according to Prescriber's clinical judgment; **AND**
5. Member does not have ANY of the following conditions which warrants discontinuation of therapy:
  - a. Loss of visual acuity from baseline (pre-treatment with Ozurdex); **OR**
  - b. Moderately or severely raised IOP in the treated eye is related to Ozurdex; **OR**
  - c. Limited clinically meaningful benefit of treatment (e.g., maximal gain in visual acuity is less than five letters on a standard sight chart in the presence of limited anti-inflammatory effect); **OR**
  - d. Absence of macular edema or stable visual acuity.

**NOTE:** If absence of macular edema or stable visual acuity, Ozurdex treatment should be discontinued, and patient monitored. Treatment and monitoring intervals may be resumed at prescribing specialist's discretion and submission of authorization request if there is presence of macular edema or visual acuity is decreasing at any time.

### LIMITATIONS AND EXCLUSIONS

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

1. Hypersensitivity to dexamethasone or any component of the formulation.
2. Active or suspected ocular or periocular infections including most viral diseases of the cornea and conjunctiva, including active epithelial herpes simplex keratitis (dendritic keratitis), vaccinia, varicella, mycobacterial infections, or fungal infections of the eye.  
*Informational Note: Corticosteroids are not recommended to be used in patients with a history of ocular herpes simplex because of the potential for reactivation of viral infection.*
3. Advanced glaucoma: Glaucoma with cup to disc ratios greater than 0.8.
4. Aphakic eyes with rupture of the posterior lens capsule.
5. Anterior Chamber Intraocular Lens (ACIOL) and Rupture of the Posterior Lens Capsule.  
*Informational Note: Contraindicated in patients whose posterior lens capsule is torn or ruptured because of the risk of migration into the anterior chamber. Laser posterior capsulotomy in pseudophakic patients is not a contraindication for use.*
6. Concurrent treatment with other intravitreal implants (i.e., Fluocinolone acetonide intravitreal implant [Iluvien and Retisert]).



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The following are considered **discontinuation** conditions based on insufficient evidence of clinical benefit:

1. Loss of visual acuity from baseline (pre-treatment with Ozurdex); **OR**
2. Moderately or severely raised IOP in the treated eye is related to Ozurdex; **OR**
3. Limited clinically meaningful benefit of treatment (e.g., maximal gain in visual acuity is less than five letters on a standard sight chart in the presence of limited anti-inflammatory effect); **OR**
4. Absence of macular edema or stable visual acuity.

NOTE: If absence of macular edema or stable visual acuity, Ozurdex treatment should be discontinued, and patient monitored. Treatment and monitoring intervals may be resumed at prescribing specialist's discretion and submission of authorization request if there is presence of macular edema or visual acuity is decreasing at any time.

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

1. Any indications other than those listed above.
2. Combined cataract surgery with intravitreal dexamethasone implant (Ozurdex).  
*Informational Note: Combined cataract surgery and Ozurdex is considered experimental/investigational for the treatment of cataract and macular edema (ME) due to insufficient evidence of effectiveness of this approach. The safety and effectiveness of intravitreal dexamethasone implant in patients with cataract and ME undergoing phacoemulsification and intra-ocular lens (IOL) implantation was evaluated (Sze et al 2015). A total of 24 eyes with ME secondary to DME and RVO were retrospectively reviewed. These eyes underwent phacoemulsification with IOL implantation and intravitreal dexamethasone implant 0.7 mg at the same setting between September 2012 and September 2013. The authors of the study concluded that combined cataract surgery with intravitreal dexamethasone implant appeared to be safe and effective in treating patients with cataract and ME in this small case series. Furthermore, a larger prospective study with longer follow-up is required to demonstrate the long-term benefit of this combined procedure.*
3. Coats' disease.
4. Macular edema secondary to idiopathic retinal vasculitis, Aneurysms, Neuroretinitis (IRVAN) syndrome, or retinitis Pigmentosa.
5. Non-arteritic anterior ischemic optic neuropathy.
6. Proliferative vitreoretinopathy.
7. Pseudophakic macular edema (Irvine-Gass syndrome) except for Pseudophakic persons with DME.
8. Radiation maculopathy.
9. Age-Related Macular Degeneration.

*Informational Note: The ERIE Study Group published a single-masked, sham-controlled, multicenter trial on the use of a dexamethasone intravitreal implant as adjunctive therapy to treat age-related macular edema (Kuppermann et al. 2015). All patients (n=243) in this study received 2 ranibizumab injections, with the next injection given as needed based on established study criteria. The primary efficacy end point was the ranibizumab injection-free interval. Ozurdex increased the injection interval based on Kaplan-Meier survival analysis. A small, but statistically significant percentage of patients did not require rescue ranibizumab over the 6-month study period (8.3% vs 2.5%). There was a small reduction in the mean number of as needed ranibizumab injections over the 6 months of the study (3.15 vs. 3.37), but patients in the Ozurdex group received an additional injection of the implant. There were no significant differences between the groups in mean change from baseline BCVA. More patients in the Ozurdex group had increased IOP (13.2% vs 4.2%), however there were no differences between the groups in cataract-related events.*

**DURATION OF APPROVAL:** 12 months

**PRESCRIBER REQUIREMENTS:** Prescribed by board-certified ophthalmologists or retinal specialist experienced in the administration of intravitreal injections. Treatment and monitoring must be retained by the specialist. Submit consultation notes if applicable.

**AGE RESTRICTIONS:** 18 years of age or older

**DOSING CONSIDERATIONS:** Macular Edema, Noninfectious Uveitis, DME  
Adults: 0.7 mg (700 µg) intravitreal implant injected intravitreally in affected eye

**QUANTITY LIMITATIONS:** ONE dexamethasone intravitreal implant per affected eye every 4 to 6 months

*Informational Note: There is limited information on repeat dosing intervals of less than 6 months; an interval of approximately 6 months should be allowed between the two injections.*

#### ADMINISTRATION

1. Ozurdex implantation is considered a provider-administered procedure performed under local anesthesia by an ophthalmologist experienced in intravitreal injections (Allergan 2018); **AND**
2. Documentation of the following information required for review and submission of requests. Prescriber to maintain record of administration of intravitreal therapy (recorded in the procedure or post-procedure note following the completion of treatments): Name of the intravitreal therapy; Dose and frequency; Treated eye: right eye, left eye, or both eyes; **AND**

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3. If member meets all criteria and approval for therapy is granted, medication will be dispensed by a specialty pharmacy vendor at the discretion of Molina Healthcare; **AND**
4. Refer to MHI Policy & Procedure (P&P): 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:** Intravitreal implant

**DRUG CLASS:** Anti-inflammatory Agent, Corticosteroid, Ophthalmic

**FDA-APPROVED USES:**

- Macular Edema: Treatment of macular edema following BRVO or CRVO
- Non-infectious uveitis: Treatment of non-infectious uveitis affecting the posterior segment of the eye
- DME: Treatment of DME

**COMPENDIAL APPROVED OFF-LABELED USES:** None

## SUMMARY OF MEDICAL EVIDENCE

### Dexamethasone Implant for DME

The MEAD (Macular Edema: Assessment of Implantable Dexamethasone in Diabetes) study consists of two multicenter, three-year, sham controlled, masked RCTs that assess the proportion of patients whose BCVA improved by 15 or more letters from baseline. The trial included 1,048 DME patients, with 351 receiving a 0.7-mg implant, 347 receiving a 0.35-mg implant, and 348 receiving sham treatment (350 participants). Patients with a BCVA of 34 to 68 ETDRS letters and a central subfield retinal thickness of 300  $\mu$ m on OCT were randomized to therapy with dexamethasone implant 0.7 mg, dexamethasone implant 0.35 mg, or a placebo operation in a 1:1:1 ratio. Re-treatment was limited to once every six months for patients who met the re-treatment eligibility criteria. The primary endpoint in the intent-to-treat population was a 15-letter improvement in BCVA from baseline at trial conclusion, with the last observation carried forward for missing values. Adverse events and IOP were both utilized as safety measures. More patients treated with dexamethasone implant 0.7-mg experienced a statistically significant improvement in BCVA (22.4%) compared to patients in the placebo group (12.0%), as well as a statistically significant reduction in central macular thickness (112 vs. 42  $\mu$ m) when compared to patients in the placebo group. Dexamethasone 0.7 mg and 0.35 mg implant had a greater mean average reduction in central retinal thickness from baseline during the study than placebo. The dexamethasone intravitreal implant of 0.7 mg and 0.35 mg met the primary efficacy endpoint for improvement in BCVA and reduction in central subfield retinal thickness with an average of four to five injections administered over three years (NCT00168337 and NCT00168389, ClinicalTrials.gov).

### Dexamethasone Implant for Noninfectious Posterior Uveitis

The HURON study demonstrated the efficacy and safety of dexamethasone intravitreal implants (Ozurdex) for the treatment of noninfectious posterior segment uveitis (Lowder et al., 2011). The study (n = 229) was a 26-week multicenter, masked, randomized, sham-controlled trial of a dexamethasone intravitreal implant. Patients were randomized to 0.35-mg implants (n=76), 0.7-mg implants (n=77), or placebo (n=76) and followed up for 8 weeks with an 18-week masked extension for 26 weeks. The primary outcome measure was the proportion of eyes with a vitreous haze score of 0 (0 = no inflammation) at week 8. Other outcome measures were vitreous haze through week 26, BCVA, adverse events, IOP, and biomicroscopy/ophthalmoscopy. A single dexamethasone intravitreal implant effectively reduced vitreous haze compared to placebo. At the primary endpoint of week 8, 47% of eyes treated with the 0.7 mg dexamethasone implant had complete vitreous haze resolution, compared to 10% of eyes treated with sham. Compared to sham controls, 0.7-mg implant-treated phakic eyes had a greater rate of increased IOP (>25

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mm Hg). Twenty-three percent (n=77) of Ozurdex-treated patients required IOP-lowering medications, while 7.9% (n=76) had a pressure increase greater than 35 mm Hg. Cataract developed in 15% of phakic eyes treated with the implant compared to 7% in the control group, and only one eye required surgery. Dexamethasone intravitreal implant treatment improved BCVA by week 3 and continued through week 26. This study had limitations, such as a shorter follow-up time (6 months), which might have made it difficult to detect adverse effects such as cataract formation. Long-term efficacy and safety data for the dexamethasone 0.7 mg implant are unavailable, and the trial lacked information regarding the efficacy of recurrent 0.7 mg dexamethasone implantation.

#### Dexamethasone Implant for RVO

Two randomized, prospective, masked, sham-controlled studies assessed the safety and efficacy of dexamethasone implant (0.7 mg and 0.35 mg to a sham procedure) during a 6-month period followed by a 6-month open-label extension (Haller et al. 2011 & 2010; Ozurdex GENEVA Study Group). Adults with BRVO or CRVO-related macular edema were studied. Inclusion required a duration of macular edema between 6 weeks and 12 months for BRVO and 6 weeks to 9 months for CRVO (Haller et al., 2010). Three months after administration of a single dexamethasone implant, the 0.7 mg and 0.35 mg dexamethasone implants were preferable to the sham procedure in terms of reducing central retinal thickness and enhancing BCVS. At month 1 and month 3, the proportion of eyes with at least a 15-letter improvement in vision was higher in the treatment groups. The effect was no longer statistically significant by the sixth month. At month 3, the reduction in mean OCT central retinal thickness was greater in the 0.7mg and 0.35mg groups compared to the sham group, but statistically insignificant at month 6. Based on the findings of the GENEVA study, the FDA approved the 0.7 mg dexamethasone intravitreal implant for the treatment of RVO-associated macular edema. Except for cataract, the rate of adverse events was comparable in the open-label extension between patients who received their first or second DEX implant (Haller et al., 2011). Increases in intraocular pressure (IOP) were also observed in groups treated with DEX implant, which were typically transient and managed with medications or observation. Furthermore, 30% and 32% of patients improved by 15 letters 60 days after the first and second DEX implants, respectively.

#### Comparative Studies

The BEVORDEX study was the first head-to-head RCT comparing bevacizumab to a slow-release intravitreal dexamethasone implant (Ozurdex) for DME. At 12 months, there was no difference between groups in the proportion of eyes achieving a 10-letter improvement in visual acuity. At 12 months, the dexamethasone implant significantly reduced central macular thickness with fewer intravitreal injections compared to the bevacizumab group. However, more eyes in the dexamethasone implant group lost vision, primarily due to cataracts. Similarly, the 24-month results of the BEVORDEX study found no significant difference between bevacizumab and dexamethasone implant treatment in terms of the proportion of eyes with a 10-letter gain in visual acuity, with both agents providing acceptable improvements (Fraser-Bell et al., 2016). Significantly more infusions were required with bevacizumab (mean 9.1 versus 2.8). However, the dexamethasone implant group had a higher incidence of visual impairment, particularly in phakic eyes at baseline. In the dexamethasone implant group, elevated IOP was essentially manageable with topical therapy. The dexamethasone implant may therefore be considered a first-line treatment option for pseudophakic patients and a second-line treatment option for phakic patients with DME.

#### *Efficacy of the Intravitreal Sustained-Release Dexamethasone Implant for DME Refractory to Anti-VEGF*

Khan et al. (2017) conducted a meta-analysis to evaluate the effect of 0.7 mg dexamethasone implant (Ozurdex) on BCVA and its efficacy in 3,859 patients with refractory DME. Studies included adults undergoing treatment with Ozurdex for DME. A total of 15 studies were included in the final analysis. Dexamethasone intravitreal implant treatment in patients with DME resistant to anti-VEGF therapy is associated with a mean improvement of 20 ETDRS letters or a gain of 4 lines after a mean follow-up period of 6 months. The authors concluded that Ozurdex therapy is associated with a significant mean improvement in visual acuity. A multimodal approach is recommended for the treatment of DME, and clinicians should be aware that Ozurdex is an option for patients whose response to anti-VEGF therapy is suboptimal.

Callanan et al. (2017) in a multicenter, open-label, 12-month, randomized, parallel-group, noninferiority study in 363 patients with DME, compared a 0.7 mg dexamethasone intravitreal implant with an anti-VEGF agent (ranibizumab). The study assessed whether dexamethasone delivered a mean change from baseline in BCVA every 5 months, like ranibizumab 0.5 mg. Patients received the dexamethasone implant at baseline, 5, and 10 months, and ranibizumab was administered every 4 weeks until maximum visual acuity was achieved and maintained stable over 3 visits.

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Treatment can then be discontinued but can be resumed if the BCVA decreases. Over one year, the mean average improvement in BCVA for the dexamethasone group was 4.34 letters and for the ranibizumab group it was 7.60 letters. Both the dexamethasone implant and ranibizumab improved BCVA in patients with DME while being well tolerated. Based on these findings, the dexamethasone implant was shown to be noninferior to ranibizumab; however, the dexamethasone group had a higher risk of IOP elevation. Ocular adverse effects in the study eyes were more common in the dexamethasone implant group due to the frequency of IOP rises and cataracts. IOP increases were usually addressed with topical medication because they were transitory. Cataract surgery was performed on 7 individuals in the dexamethasone group and 1 patient in the ranibizumab group.

The Diabetic Retinopathy Clinical Research Network (DRCR Retina Network) conducted Protocol U, a phase 2, multicenter RCT comparing ranibizumab monotherapy to a combination of dexamethasone implant (Ozurdex) and ranibizumab (Lucentis) for persistent DME. To confirm DME, patients were run in. 65 eyes were treated with ranibizumab and 64 with a combination. If edema persisted or the Snellen equivalent was 20/25 or worse, ranibizumab was retreated every 4 weeks. The combination arm received a second dexamethasone implant at 3rd month and was followed to week 24. Lucentis alone and Lucentis + dexamethasone implant had similar visual acuity at 24 weeks. During the 24-week research, both groups gained three letters. Dexamethasone implants did not improve visual acuity at 24 weeks. Combination therapy with dexamethasone implant improved macular thickness but elevated IOP.

#### National and Specialty Organizations

The **American Academy of Ophthalmology (AAO)** published its Preferred Practice Pattern for retinal vein occlusions in 2019: 'Macular edema may complicate both CRVOs and BRVOs. The first line of treatment for associated macular edema is anti-VEGFs. Intravitreal corticosteroids, with the associated risk of glaucoma and cataract formation, have demonstrated efficacy. Also, laser photocoagulation surgery in BRVO has a potential role in treatment.'

The **National Institute for Health and Clinical Excellence (NICE)** published the following:

#### *Dexamethasone Intravitreal Implant for the Treatment of Macular Edema Secondary to RVO (2011; TA229)*

NICE, published guidance on the use of the dexamethasone intravitreal implant for macular edema secondary to retinal vein occlusion. The dexamethasone implant is recommended as an option for the treatment of macular edema following CRVO. It is recommended as an option for the treatment of macular edema following BRVO when treatment with laser photocoagulation has not been beneficial, or if laser photocoagulation is not considered suitable because of the extent of macular hemorrhage.

#### *Dexamethasone Intravitreal Implant for Treating DME (2022; TA824)*

NICE issued recommendations for the treatment of DME with the dexamethasone intravitreal implant (Ozurdex). Ozurdex is suggested for diabetic macular edema patients "only if their condition has not responded well enough to, or if they are unable to receive, non-corticosteroid therapy." This recommendation applies regardless of whether a patient's lens is phakic or pseudo phakic.

#### *Adalimumab and Dexamethasone for Treating Noninfectious Uveitis (2017; TA460)*

NICE, released guidance in 2017 addressing the use of dexamethasone intravitreal implant (with adalimumab) for the treatment of noninfectious uveitis. NICE recommended the dexamethasone intravitreal implant is recommended as an option for treating non-infectious uveitis in the posterior segment of the eye in adults, only if there is:

- Active disease (that is, current inflammation in the eye) and
- Worsening vision with a risk of blindness

## CODING & BILLING INFORMATION

### CPT (Current Procedural Terminology) Codes

CPT	Description
67028	Intravitreal injection of a pharmacologic agent (separate procedure)
67027	Implantation of intravitreal drug delivery system (e.g., ganciclovir implant), includes concomitant removal of vitreous



## Molina Clinical Policy

### Ozurdex (dexamethasone intravitreal implant): Policy No. 282

Last Approval: 6/14/2023

Next Review Due By: June 2024



#### HCPCS (Healthcare Common Procedure Coding System) Code

HCPCS	Description
J7312	Injection, dexamethasone, intravitreal implant, 0.1 mg [Ozurdex]

**AVAILABLE DOSAGE FORMS:** Biodegradable intravitreal implant containing dexamethasone 0.7 mg. *Ozurdex employs the Novadur™ solid polymer drug delivery system. Each implant comes preloaded in a specially designed, single-use applicator. The implant provides intravitreal dexamethasone for up to 6 months.*

**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

<b>06/14/2023</b>	Policy reviewed and updated. No changes in coverage criteria. Updated summary of medical evidence and references. Coding updated to include 67027.
<b>06/08/2022</b>	Policy reviewed and updated. No changes in coverage criteria Updated references.
<b>06/09/2021</b>	Policy revised. Updated references. IRO (Independent Review Organization) Peer Review. 5/19/2021. Practicing Physician. Board certified in Ophthalmology. Content update includes: In the 'Initial Coverage Criteria' section: <ul style="list-style-type: none"><li>DME and Non-infectious Posterior Segment Uveitis: the requirement for 'Triamcinolone acetonide, intravitreal injection' was removed.</li><li>Macular Edema due to BRVO and CRVO: In the criterion 'FOR CRVO ONLY (BRVO not required)'—previously 'Triamcinolone acetonide, intravitreal injection' replaced with 'Intravitreal glucocorticoids' AND removed: 'Laser Photocoagulation [AS APPLICABLE ONLY]' requirement.</li><li>Added criterion to #5: 'Member has been informed about the potential adverse effects of a corticosteroid intravitreal implant, including cataracts, increased intraocular pressure, or hypotony, endophthalmitis, and risk of need for additional surgical procedures.'</li><li>Added criterion to #6 for congruency with existing continuation of treatment requirement: 'Prescriber to maintain record of administration of intravitreal therapy (recorded in the procedure or post-procedure note following the completion of treatments) with the following information: name of the medication, dose/amount of drug administered, and treated eye (right eye, left eye, or both eyes). Submit with re-authorization requests.'</li><li>Reauthorization/Continuation of Treatment section: Removed 'Member continues to meet initial coverage criteria' from criteria #1</li></ul>
<b>Q3 2020 P&amp;T</b>	Policy reviewed and updated, no changes in coverage criteria, updated references.
<b>Q3 2019 P&amp;T</b>	Policy revised. Updated references. IRO Peer Review. 7/10/2019. Practicing Physician. Board certified in Ophthalmology. Content update included: Revised authorization limit criterion from ONE dexamethasone intravitreal implant per affected eye 'every 6 months' to 'every 4 to 6 months'
<b>12/15/2016</b>	New policy. IRO Peer Review. 10/20/2016. Practicing Physician. Board certified in Ophthalmology, Surgery Vitreoretinal.

#### REFERENCES

- American Academy of Ophthalmology (AAO). Retinal vein occlusions PPP 2019. Published October 2019. Accessed April 2023. <https://www.aao.org/education/preferred-practice-pattern/retinal-vein-occlusions-ppp>
- American Diabetes Association (ADA). Standards of medical care in diabetes – 2015. Diabetes Care 2015 Jan;38 Suppl 1:S1-93. 10.2337/diaclin.33.2.97.
- Bhagat N, Grigorian RA, Tutela A, Zarbin MA. Diabetic macular edema: pathogenesis and treatment. Survey of Ophthalmology. 2009;54(1):1-32. DynaMed. Diabetic retinopathy. EBSCO Information Services. Accessed April 20, 2023. <https://www.dynamed.com/condition/diabetic-retinopathy>
- Blinder KJ, Dugel PU, Chen S, et al. Anti-VEGF treatment of diabetic macular edema in clinical practice: effectiveness and patterns of use (ECHO Study Report 1). Clin Ophthalmol. 2017 Feb 21;11:393-401. doi: 10.2147/OPHTH.S128509. PMID: 28260851; PMCID: PMC5328320.
- Boyer DS, Yoon YH, Belfort R, et al. Ozurdex MEAD study group: Three-year, randomized, sham-controlled trial of dexamethasone intravitreal implant in patients with diabetic macular edema. Ophthalmology. 2014 Oct; 121(10): 1904–14. doi: 10.1016/j.ophtha.2014.04.024.
- Callanan DG, Loewenstein A, Patel SS, et al. A multicenter, 12-month randomized study comparing dexamethasone intravitreal implant with ranibizumab in patients with diabetic macular edema. Graefes Arch Clin Exp Ophthalmol. 2017;255(3):463-473. doi: 10.1007/s00417-016-3472-1.
- Centers for Medicare and Medicaid Services (CMS). Medicare coverage database. <https://www.cms.gov/medicare-coverage-database/search.aspx>

8. Clinical Pharmacology. Published 2022. Accessed April 2023. <http://www.clinicalkey.com/>.
9. D'Amico DJ, Shah, AR. Diabetic retinopathy: Prevention and treatment (Topic 1773 Version 34.0). Updated March 21, 2023. Accessed April 2023. <http://www.uptodate.com>
10. Daruich A, Matet A, Moulin A, et al. Mechanisms of macular edema: Beyond the surface. *Prog Retin Eye Res.* 2018 Mar;63:20-68. doi: 10.1016/j.preteyeres.2017.10.006.
11. Drug Facts and Comparisons. Facts and comparisons eAnswers. Accessed May 2023. <https://eanswers.factsandcomparisons.com/>.
12. Dynamed. Posterior uveitis. EBSCO Information Services. Accessed April 20, 2023. <https://www.dynamed.com/condition/posterior-uveitis>
13. Early treatment diabetic retinopathy study research group: Photocoagulation for diabetic macular edema: Early Treatment Diabetic Retinopathy Study Report No. 1. *Arch Ophthalmol* 103:1796–1806, 1985. PMID: 2866759.
14. Ehlers JP, Kim SJ, Yeh S, et al. Therapies for macular edema associated with branch retinal vein occlusion: A report by the American Academy of Ophthalmology. *Ophthalmology.* 2017 Sep;124(9):1412-1423. doi: 10.1016/j.ophtha.2017.03.060. PMID: 28551163.
15. Fraser-Bell S, Lim LL, Campain A, et al. Bevacizumab or Dexamethasone implants for DME: 2-year results (the BEVORDEX study). *Ophthalmology.* 2016 Jun; 123(6): 1399–401. doi: 10.1016/j.ophtha.2015.12.012.
16. Gillies MC, Lim LL, Campain A, et al. A randomized clinical trial of intravitreal bevacizumab versus intravitreal dexamethasone for diabetic macular edema: the BEVORDEX study. *Ophthalmology.* 2014;121(12):2473-2481. doi: 10.1016/j.ophtha.2014.07.002.
17. Han DP, Ahmad B. Retinal vein occlusion: Epidemiology, clinical manifestations, and diagnosis (Topic 15264 Version 40.0). Updated October 10, 2022. Accessed April 2023. <http://www.uptodate.com>
18. Han DP, Ahmad B. Retinal vein occlusion: Treatment (Topic 15263 Version 41.0). Updated August 9, 2022. Accessed April 2023. <http://www.uptodate.com>
19. He Y, Ren X, Hu B, et al. A meta-analysis of the effect of a dexamethasone intravitreal implant versus intravitreal anti-vascular endothelial growth factor treatment for diabetic macular edema. *BMC Ophthalmol.* 2018;18(1):121. doi: 10.1186/s12886-018-0779-1.
20. Ji K, Zhang Q, Tian M, et al. Comparison of dexamethasone intravitreal implant with intravitreal anti-VEGF injections for the treatment of macular edema secondary to branch retinal vein occlusion: A meta-analysis. *Medicine (Baltimore).* 2019;98(22):e15798. doi: 10.1097/MD.00000000000015798.
21. Khan Z, Kuriakose RK, Khan M, et al. Efficacy of the intravitreal sustained-release Dexamethasone implant for diabetic macular edema refractory to anti-vascular endothelial growth factor therapy: Meta-analysis and clinical implications. *Ophthalmic Surg Lasers Imaging Retina.* 2017 Feb 1;48(2):160-166. doi: 10.3928/23258160-20170130-10.
22. Kuppermann BD, Goldstein M, Maturi RK, et al. Dexamethasone intravitreal implant as adjunctive therapy to ranibizumab in neovascular age-related macular degeneration: a multicenter randomized controlled trial. *Ophthalmologica.* Sep 2015; 234(1):40-54. doi: 10.1159/000381865. Epub 2015 Jun 18.
23. Lazić R, Lukic M, Boras I, et al. Treatment of anti-vascular endothelial growth factor-resistant diabetic macular edema with dexamethasone intravitreal implant. *Retina.* 2014;34:719–724. doi: 10.1097/IAE.0b013e3182a48958.
24. Lowder C, Belfort R Jr, Lightman S, et al. Ozurdex HURON study group: Dexamethasone intravitreal implant for noninfectious intermediate or posterior uveitis. *Arch Ophthalmol,* 2011, 129(5):545-53. doi: 10.1001/archophthalmol.2010.339.
25. National Institute for Health and Clinical Excellence (NICE). Adalimumab and dexamethasone for treating non-infectious uveitis [TA460]. Published July 26, 2017. Accessed April 2023. <https://www.nice.org.uk/guidance/ta460>
26. National Institute for Health and Clinical Excellence (NICE). Dexamethasone intravitreal implant for the treatment of macular edema secondary to retinal vein occlusion. NICE technology appraisal guidance [TA229]. Published July 27, 2011. Updated January 2015. Accessed April 2023. <https://www.nice.org.uk/Guidance/ta229>
27. National Institute for Health and Clinical Excellence (NICE). Dexamethasone intravitreal implant for treating diabetic macular edema [TA349]. Published July 22, 2015. Accessed April 2023. <http://www.nice.org.uk/guidance/ta349>
28. Ozurdex (dexamethasone) [prescribing information]. Madison, NJ: Allergan USA Inc; December 2022.
29. Rosenbaum JT, et al. Uveitis: Treatment (Topic 5592 Version 41.0). Updated March 5, 2023. Accessed April 2023. <http://www.uptodate.com>
30. Scott IU, Ip MS, VanVeldhuisen PC, et al. A randomized trial comparing the efficacy and safety of intravitreal triamcinolone with standard care to treat vision loss associated with macular edema secondary to branch retinal vein occlusion: The Standard Care vs Corticosteroid for Retinal Vein Occlusion (SCORE) study report 6. *Arch Ophthalmol* 2009; 127:1115.
31. Solomon SD, Chew E, Duh EJ, et al. Diabetic retinopathy: A position statement by the American Diabetes Association. *Diabetic Care.* 2017;40:412-418. doi: 10.2337/dc16-2641. PMID: 28223445. PMID: PMC5402875.
32. Tan HY, Agarwal A, Lee CS, et al. Management of noninfectious posterior uveitis with intravitreal drug therapy. *Clin Ophthalmol.* 2016;10:1983-2020. Published 2016 Oct 13. doi:10.2147/OPTH.S89341.
33. Thorne JE, Suhler E, Skup M, et al. Prevalence of noninfectious uveitis in the United States: A claims-based analysis. *JAMA Ophthalmol* 2016;134:1237-1245. doi: 10.1001/jamaophthalmol.2016.3229.
34. Wu L, Fernandez-Loaiza P, Sauma J, et al. Classification of diabetic retinopathy and diabetic macular edema. *World Journal of Diabetes.* 2013;4(6):290-4.
35. Yeh S, Kim SJ, Ho AC, et al. Therapies for macular edema associated with central retinal vein occlusion: A report by the American Academy of Ophthalmology. *Ophthalmology.* 2015 Apr. 122(4):769-78. doi: 10.1016/j.ophtha.2014.10.013. PMID: 25576994.