Dexamethasone intravitreal implant (Ozurdex; Allergan Inc.) for treatment of diabetic macular edema

HAYES, Inc

Record Status
This is a bibliographic record of a published health technology assessment. No evaluation of the quality of this assessment has been made for the HTA database.

Citation

Authors' objectives
Diabetic macular edema (DME) is the main cause of loss of vision in patients with diabetes, and patients with DME typically lose several lines of visual acuity within a few years. Corticosteroids suppress inflammation, reduce leukostasis, support the barrier function of retinal endothelial cells, and regulate proteins associated with transport of water out of the cell, thereby reducing edema. However, they are associated with the formation of cataracts and an increase in intraocular pressure (IOP). The limitations of steroids for treatment of DME have led to the development of several types of long-acting, sustained-release, intravitreal implants that provide continuous delivery of a low dose of steroids without need for repeated intravitreal injections. Description of Technology: Ozurdex (dexamethasone intravitreal implant; Allergan Inc.) is a sterile, biodegradable, rod-shaped, intravitreal implant containing 0.7 milligrams (mg) of the corticosteroid dexamethasone (DEX) embedded in a Novadur solid polymer drug delivery system. The implant is injected into the vitreous cavity of the eye with a single-use, sterile, preloaded 22-gauge applicator. As the implant biodegrades, Ozurdex produces a sustained release of DEX over a period of 6 months or more. The implant remains vitreous until 270 days before completely dissolving. Patient Population: The DEX implant is indicated for the treatment of adults with DME, macular edema following branch or central retinal vein occlusion, or uveitis. The focus of this health technology assessment is on patients with DME. Clinical Alternatives: Clinical alternatives include intravitreal injection of triamcinolone or anti-VEGF agents (i.e., ranibizumab or bevacizumab) or photocoagulation (laser therapy). Other intravitreal implants include fluocinolone acetonide (FA)-containing implants approved for treatment of DME (Iluvien; Alimera Sciences) and the off-label use of an implant containing 0.59 mg of FA (Retisert; Bausch & Lomb) approved by the Food and Drug Administration for uveitis.

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