DEXYCU™ (dexemethasone intracameral suspension) 9%, for intracameral administration

HIGHLIGHTS OF PRESCRIBING INFORMATION
These highlights do not include all the information needed to use DEXYCU™ safely and effectively. See full prescribing information for DEXYCU.

DEXYCU™ is a corticosteroid indicated for the treatment of postoperative inflammation (1).

1 INDICATIONS AND USAGE

2 DOSAGE AND ADMINISTRATION

2.1 Dosing Information
DEXYCU should be administered as a single dose, intracamerally in the posterior chamber at the end of surgery.
The dose is 0.005 mL of dexemethasone 9% (equivalent to 517 micrograms).

2.2 Preparation and Administration
Each kit of DEXYCU is for a single administration. After preparation, 0.005 mL will be administered.
The DEXYCU administration kit contains the following items:

Step 1. Prepare a sterile field.

Step 2. Withdraw the syringe plunger approximately 1 inch.

Step 3. Place the 18-gauge needle firmly on the flange of the syringe.

Step 4. Invert the vial.

Step 5. Remove the needle from the syringe.

Step 6. Insert the needle into the vial and inject the air into the vial.

Step 7. Remove the needle from the vial and discard the unused portion in the vial.

Step 8. Affix the syringe guide over the syringe ring on the plunger.

Step 9. Depress the plunger until the syringe guiding mechanism comes gently into contact with the flange of the syringe.

Step 10. Note: If the sphere of administered suspension is larger than 2 mm in diameter, excess drug after injection may remain in the syringe after the injection—do not wipe or touch the tip of the needle.

Adverse reactions: Report any untoward reactions to EyePoint Pharmaceuticals

WARNINGS AND PRECAUTIONS

CONTRAINdications

None.

In controlled studies, the most common adverse reactions reported by 5-15% of patients were intraocular pressure increased, corneal edema and iritis.

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

8.2 Lactation

8.3 Pediatric Use

8.4 Geriatric Use

8.6 Gender-Specific Use

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

12.2 Pharmacokinetics

12.3 Pharmacodynamics

13 NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis

13.2 Mutagenesis

13.3 Impairment of Fertility

14 CLINICAL STUDIES

16 HOW SUPPLIED/STORAGE AND HANDLING

*Sections or subsections omitted from the full prescribing information are not listed.

Adverse Reactions: Report any untoward reactions to EyePoint Pharmaceuticals, Inc. at 1-833-EYEPOINT (1-833-393-7646) or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

Revised: 12/2018

*Sections or subsections omitted from the full prescribing information are not listed.
Step 10. Remove the syringe guide, leaving the syringe ring in place. Caution to not move the plunger. The space between the syringe ring and the top of the plunger is the medication injection volume that will be applied to the patient’s eye. The syringe is now ready for injection.

Step 11. In a single slow motion, inject 0.005 mL of the drug material behind the iris in the inferior portion of the posterior chamber. If the sphere of administered drug material is too large, the drug may move inferiorly to the iris when the patient blinks. The following adverse events rates are derived from three clinical trials in which 339 patients received the 517 mcg dose of DEXYCU. The most commonly reported adverse reaction occurring in ≥5% of subjects and included increases in intraocular pressure, corneal edema and iritis. Other adverse ocular reactions occurring in ≥5% of subjects included, canalicular endothelial cell loss, blepharitis, eye pain, cystoid macular edema, dry eye, ocular inflammation, posterior capsular fissure, iris color change, corneal abrasion, conjunctival injection, keratitis, photophobia, presbyopia, visual disturbance, cataract progression, and vitreous hemorrhage.

3 DOSAGE FORMS AND STRENGTHS

DEXYCU contains dexamethasone 9% w/w (103.4 mg/mL) as a sterile suspension for intraocular ophthalmic administration. DEXYCU is provided as a kit for administration of a single dose of 0.005 mL of 9% dexamethasone (equivalent to 517 mcg of dexamethasone).

4 CONTRAINDICATIONS

None.

5 WARNINGS AND PRECAUTIONS

5.1 Increase in Intraocular Pressure

The use of dexamethasone ophthalmic suspension may increase intraocular pressure. Patients and/or caregivers should be advised of this potential complication and instructed to report the onset of new symptoms or a sudden worsening of existing symptoms to their healthcare provider as soon as possible. In the clinical trials, DEXYCU was associated with a statistically significant increase in the average intraocular pressure compared to placebo.

5.2 Delayed Healing

In patients with active cataracts, DEXYCU may delay the healing of the wound and increase the risk of secondary ocular infections.

5.3 Exacerbation of Infection

Systemic exposure to dexamethasone was evaluated in a subgroup of patients enrolled in two trials (n=25 for the first study and n=33 for the second study). The patients received a single intraocular injection of DEXYCU containing 342 mcg or 517 mcg of dexamethasone at the end of cataract surgery. Blood samples were collected prior to surgery and at central time points post-surgery between Day 1 and up to Day 30. In the first study, the dexamethasone plasma concentrations on post-surgery Day 1 ranged from 0.09 to 0.36 ng/mL and from 0.07 to 1.61 ng/mL following administration of DEXYCU 342 mcg and 517 mcg, respectively. In the second study, dexamethasone plasma concentrations on post-surgery Day 1 ranged from 0.149 to 2.79 ng/mL following administration of DEXYCU 517 mcg. In both studies, dexamethasone plasma concentrations declined over time and very few patients had quantifiable dexamethasone plasma concentrations at the final time point of sampling (Day 15 or Day 30).

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

Dexamethasone is a corticosteroid. Corticosteroids have been shown to suppress inflammation by inhibiting multiple inflammatory cytokines resulting in decreased edema, fibrin deposition, capillary leakage and migration of inflammatory cells.

12.3 Pharmacokinetics

Systemic exposure to dexamethasone was evaluated in a subgroup of patients enrolled in two trials (n=25 for the first study and n=33 for the second study). The patients received a single intraocular injection of DEXYCU containing 342 mcg or 517 mcg of dexamethasone at the end of cataract surgery. Blood samples were collected prior to surgery and at central time points post-surgery between Day 1 and up to Day 30. In the first study, the dexamethasone plasma concentrations on post-surgery Day 1 ranged from 0.09 to 0.36 ng/mL and from 0.07 to 1.61 ng/mL following administration of DEXYCU 342 mcg and 517 mcg, respectively. In the second study, dexamethasone plasma concentrations on post-surgery Day 1 ranged from 0.149 to 2.79 ng/mL following administration of DEXYCU 517 mcg. In both studies, dexamethasone plasma concentrations declined over time and very few patients had quantifiable dexamethasone plasma concentrations at the final time point of sampling (Day 15 or Day 30).

13 NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Animal studies have not been conducted to determine whether DEXYCU has the potential for carcinogenicity or mutagenicity. Fertility studies have not been conducted in animals.

14 CLINICAL STUDIES

Clinical efficacy was evaluated in a randomized, double-masked, placebo-controlled trial (NCT02066688) in which subjects received either DEXYCU or placebo (vehicle). A dose of 3 microliters of DEXYCU (equivalent to 517 mcg of dexamethasone), a dose equivalent to 342 mcg of dexamethasone or vehicle was administered by the physician at the end of the surgical procedure. The primary efficacy endpoints for the study was the proportion of patients with anterior chamber cell clearing (i.e., cell score=0) on postoperative day 7 (POD 7). The presence of anterior chamber cells was assessed using a slit-lamp biomicroscope up to 30-post day post-treatment. The percentage of patients with anterior chamber clearing at Day 8 was 20% in the placebo group, and 57%, and 60% in the 342 and 517 mcg treatment groups, respectively (Table 1). The percentage of subjects receiving rescue medication of ocular steroids or NSAID was significantly lower at Day 1, 3, 15 and 30 in the 342 and 517 mcg treatment groups compared to placebo (Table 2).

Table 1: Proportion of subjects with clearing of the anterior chamber cells by visit

<table>
<thead>
<tr>
<th>Visits</th>
<th>Placebo</th>
<th>DEX342</th>
<th>DEX517</th>
<th>DEX342 vs Placebo</th>
<th>DEX517 vs Placebo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1</td>
<td>7 (14%)</td>
<td>11 (73%)</td>
<td>24 (15%)</td>
<td>2% (13%), 11%</td>
<td>7% (15%), 10%</td>
</tr>
<tr>
<td>Day 3</td>
<td>13 (16%)</td>
<td>58 (68%)</td>
<td>48 (54%)</td>
<td>22% (30%), 34%</td>
<td>52% (38%), 24%</td>
</tr>
<tr>
<td>Day 8</td>
<td>16 (20%)</td>
<td>90 (57%)</td>
<td>94 (60%)</td>
<td>37% (24%), 30%</td>
<td>62% (27%), 34%</td>
</tr>
<tr>
<td>Day 15</td>
<td>21 (26%)</td>
<td>83 (52%)</td>
<td>91 (58%)</td>
<td>56% (28%), 40%</td>
<td>32% (18%), 40%</td>
</tr>
<tr>
<td>Day 30</td>
<td>28 (35%)</td>
<td>131 (67%)</td>
<td>103 (60%)</td>
<td>50% (22%), 31%</td>
<td>11% (18%), 40%</td>
</tr>
</tbody>
</table>

Subjects who received rescue medication were treated as failure.

Table 2: Proportion of subjects receiving rescue medications

<table>
<thead>
<tr>
<th>Visits</th>
<th>Number (Percent) of Patients Receiving Rescue Medications, and 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placebo</td>
<td>DEX342</td>
</tr>
<tr>
<td>Day 1</td>
<td>10 (10%)</td>
</tr>
<tr>
<td>Day 3</td>
<td>18 (18%)</td>
</tr>
<tr>
<td>Day 8</td>
<td>40 (50%)</td>
</tr>
<tr>
<td>Day 15</td>
<td>63 (54%), 65 (62%), 22% (14%)</td>
</tr>
</tbody>
</table>

Subjects who received an ocular corticosteroid or NSAID in study eye.

16 HOW SUPPLIED/STORAGE AND HANDLING

Each kit of DEXYCU contains a single dose for a single patient. The 2-mL glass vial is filled with 0.5 mL of 9% dexamethasone intravenous suspension and has a blue cap (NDC 71879-001-01). Each kit also contains one sterile 18-gauge, 1.5-inch needle with a plastic cap attachment, one sterile plastic 1-mL syringe for withdrawal of the vial contents, one sterile 25-gauge 3-mm cannula with a plastic cap attached for the intraocular administration, and one syringe assembly pouch containing a sterile ring and a sterile syringe guide used for measuring and injection of the 0.005 mL dose.

Store at 20°C to 25°C (68°F to 77°F).

Manufactured for: Eyefund Pharmaceuticals, LLC, Watertown, MA 02472