HIGHLIGHTS OF PRESCRIBING INFORMATION
These highlights do not include all of the information needed to use MACUGEN® safely and effectively. See full prescribing information for MACUGEN®.
MACUGEN®(pegaptanib sodium injection)
Intravitreal Injection
Initial U.S. Approval: 2004

----------INDICATIONS AND USAGE----------
Macugen is indicated for the treatment of neovascular (wet) age-related macular degeneration (1).

----------DOSAGE AND ADMINISTRATION----------
- FOR OPHTHALMIC INTRAVITREAL INJECTION ONLY (2.1).
- Macugen 0.3 mg should be administered once every six weeks by intravitreous injection into the eye to be treated (2.2).

----------DOSAGE FORMS AND STRENGTHS----------
- 0.3 mg/90 µL solution in a single-use syringe for intravitreal injection (3).

----------CONTRAINDICATIONS----------
- Ocular or periocular infections (4.1).
- Hypersensitivity (4.2).

----------WARNINGS AND PRECAUTIONS----------
- Endophthalmitis may occur following intravitreous injections. Proper aseptic injection technique should always be utilized when administering Macugen. Patients should be monitored during the week following the injection (5.1).
- Increases in intraocular pressure have been seen within 30 minutes of injection of Macugen (5.2).
- Rare cases of anaphylaxis/anaphylactoid reactions, including angioedema, have been reported in the post-marketing experience (5.3).

----------ADVERSE REACTIONS----------
Most common adverse reactions (reported in 10-40% of patients treated with Macugen for up to two years) are anterior chamber inflammation, blurred vision, cataract, conjunctival hemorrhage, corneal edema, eye discharge, eye irritation, eye pain, hypertension, increased intraocular pressure (IOP), ocular discomfort, punctate keratitis, reduced visual acuity, visual disturbance, vitreous floaters, and vitreous opacities (6.2).

To report SUSPECTED ADVERSE REACTIONS, contact Eyetech Inc. at 1-866-MACUGEN (1-866-622-8436) or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

See 17 for PATIENT COUNSELING INFORMATION

Revised: 07/2011

FULL PRESCRIBING INFORMATION: CONTENTS*

1 INDICATIONS AND USAGE
2. DOSAGE AND ADMINISTRATION
2.1 General Dosing Information
2.2 Dosing
2.3 Preparation for Administration
2.4 Administration
3 DOSAGE FORMS AND STRENGTHS
4 CONTRAINDICATIONS
4.1 Ocular or Periocular Infections
4.2 Hypersensitivity
5 WARNINGS AND PRECAUTIONS
5.1 Endophthalmitis
5.2 Increases in Intraocular Pressure
5.3 Anaphylaxis
6 ADVERSE REACTIONS
6.1 Injection Procedure
6.2 Clinical Studies Experience
6.3 Postmarketing Experience
8 USE IN SPECIFIC POPULATIONS
8.1 Pregnancy
8.3 Nursing Mothers
8.4 Pediatric Use
8.5 Geriatric Use
10 OVERDOSAGE
11 DESCRIPTION
12 CLINICAL PHARMACOLOGY
12.1Mechanism of Action
12.3Pharmacokinetics
13 NONCLINICAL TOXICOLOGY
13.1Carcinogenesis, Mutagenesis, Impairment of Fertility
13.2Animal Toxicology and/or Pharmacology
14 CLINICAL STUDIES
16 HOW SUPPLIED/STORAGE AND HANDLING
17 PATIENT COUNSELING INFORMATION

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

FULL PRESCRIBING INFORMATION

1 INDICATIONS AND USAGE

Macugen is indicated for the treatment of neovascular (wet) age-related macular degeneration.

2. DOSAGE AND ADMINISTRATION

2.1 General Dosing Information

FOR OPHTHALMIC INTRAVITREAL INJECTION ONLY.

2.2 Dosing

Macugen 0.3 mg should be administered once every six weeks by intravitreous injection into the eye to be treated.

2.3 Preparation for Administration

Macugen should be inspected visually for particulate matter and discoloration prior to administration. If visible particulates are observed and/or the liquid in the syringe is discolored, the syringe must not be used.

Administration of the syringe contents involves assembly of the syringe with the administration needle. The injection procedure should be carried out under controlled aseptic conditions, which includes the use of sterile gloves, a sterile drape, and a sterile eyelid speculum (or equivalent). When ready to assemble syringe and administer injection, carefully peel open pouches, remove contents, and place on sterile field. If upon opening the pouch, the plastic clip is missing or not attached to the syringe, the syringe should not be used.

To avoid compromising the sterility of the product, do not pull back on the plunger.

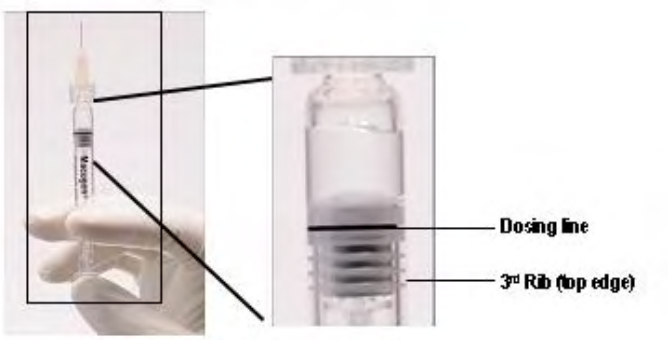
1. Remove the syringe from the plastic clip.
2. Twist off cap.
3. Attach the sterile BD® 30G ½" Precision Glide® administration needle (included) to the syringe by screwing it into the syringe tip.

--Another sterile BD® 30G ½" Precision Glide® administration needle may be used in lieu of the one included. Remove the plastic needle shield from the needle.

4. Holding the syringe with the needle pointing up, check the syringe for bubbles. If there are bubbles, gently tap the syringe with your finger until the bubbles rise to the top of the syringe. **SLOWLY** depress the plunger to eliminate all the bubbles and to expel the excess drug so that the **top edge of the 3rd rib on the plunger stopper aligns with the pre-printed black dosing line (See Figure 2, below).**
5. Inject the entire contents of the syringe.

PRIOR to Injection

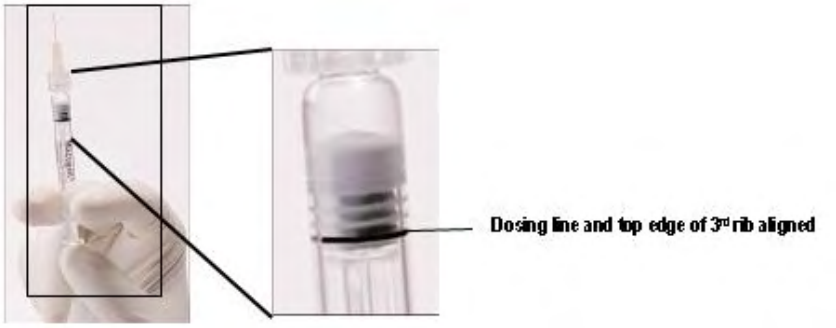
Figure1. **Before** expelling air bubble and excess drug



(Actual air bubble formation may vary)

READY for Injection

Figure 2. **After** expelling air bubble and excess drug



2.4 Administration

The injection procedure should be carried out under controlled aseptic conditions, which includes the use of sterile gloves, a sterile drape, and a sterile eyelid speculum (or equivalent). Adequate anesthesia and a broad-spectrum microbicide should be given prior to the injection.

The patient's medical history for hypersensitivity reactions should be evaluated prior to performing the intravitreal procedure [*see Warnings and Precautions (5) and Adverse Events (6)*].

Following the injection, patients should be monitored for elevation in intraocular pressure and for endophthalmitis. Monitoring may consist of a check for perfusion of the optic nerve head immediately after the injection, tonometry within 30 minutes following the injection, and monitoring during the week following the injection. Patients should be instructed to report any symptoms suggestive of endophthalmitis without delay.

No special dosage modification is required for any of the populations that have been studied (i.e. gender, elderly).

The safety and efficacy of Macugen therapy administered to both eyes concurrently have not been studied.

3 DOSAGE FORMS AND STRENGTHS

Single-use glass syringe pre-filled with 0.3 mg of Macugen® in a nominal 90 µL solution for intravitreal injection.

4 CONTRAINDICATIONS

4.1 Ocular or Periocular Infections

Macugen is contraindicated in patients with ocular or periocular infections.

4.2 Hypersensitivity

Macugen is contraindicated in patients with known hypersensitivity to pegaptanib sodium or any other excipient in this product.

5 WARNINGS AND PRECAUTIONS

5.1 Endophthalmitis

Intravitreous injections, including those with Macugen, have been associated with endophthalmitis. Proper aseptic injection technique should always be utilized when administering Macugen. In addition, patients should be monitored during the week following the injection to permit early treatment, should an infection occur [*see Dosage and Administration (2.4)*].

5.2 Increases in Intraocular Pressure

Increases in intraocular pressure have been seen within 30 minutes of injection with Macugen. Therefore, intraocular pressure as well as the perfusion of the optic nerve head should be monitored and managed appropriately [*see Dosage and Administration (2.4)*].

5.3 Anaphylaxis

Rare cases of anaphylaxis/anaphylactoid reactions, including angioedema, have been reported in the post-marketing experience following the Macugen intravitreal administration procedure [*see Adverse Events (6.3) and Dosage and Administration (2.4)*].

6 ADVERSE REACTIONS

6.1 Injection Procedure

Serious adverse events related to the injection procedure occurring in < 1% of intravitreous injections included endophthalmitis [*see Warnings and Precautions (5.1)*], retinal detachment, and iatrogenic traumatic cataract.

6.2 Clinical Studies Experience

The most frequently reported adverse events in patients treated with Macugen 0.3 mg for up to two years were anterior chamber inflammation, blurred vision, cataract, conjunctival hemorrhage, corneal edema, eye discharge, eye irritation, eye pain, hypertension, increased intraocular pressure (IOP), ocular discomfort, punctate keratitis, reduced visual acuity, visual disturbance, vitreous floaters, and vitreous opacities. These events occurred in approximately 10-40% of patients.

The following events were reported in 6-10% of patients receiving Macugen 0.3 mg therapy:
Ocular: blepharitis, conjunctivitis, photopsia, vitreous disorder.
Non-Ocular: bronchitis, diarrhea, dizziness, headache, nausea, urinary tract infection.

The following events were reported in 1-5% of patients receiving Macugen 0.3 mg therapy:
Ocular: allergic conjunctivitis, conjunctival edema, corneal abrasion, corneal deposits, corneal epithelium disorder, endophthalmitis, eye inflammation, eye swelling, eyelid irritation, meibomianitis, mydriasis, periorbital hematoma, retinal edema, vitreous hemorrhage.
Non-Ocular: arthritis, bone spur, carotid artery occlusion, cerebrovascular accident, chest pain, contact dermatitis, contusion, diabetes mellitus, dyspepsia, hearing loss, pleural effusion, transient ischemic attack, urinary retention, vertigo, vomiting.

6.3 Postmarketing Experience

Anaphylaxis/anaphylactoid reactions, including angioedema, have been identified during postapproval use of Macugen. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure [*see Warnings and Precautions (5.3) and Dosage and Administration (2.4)*].

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Teratogenic Effects: Pregnancy Category B. Pegaptanib produced no maternal toxicity and no evidence of teratogenicity or fetal mortality in mice at intravenous doses of up to 40 mg/kg/day (about 7,000 times the recommended human monocular ophthalmic dose of 0.3 mg/eye). Pegaptanib crosses the placenta in mice.

There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

8.3 Nursing Mothers

It is not known whether pegaptanib is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when Macugen is administered to a nursing woman.

8.4 Pediatric Use

Safety and effectiveness of Macugen in pediatric patients have not been established.

8.5 Geriatric Use

Approximately 94% (834/892) of the patients treated with Macugen were ≥ 65 years of age and approximately 62% (553/892) were ≥ 75 years of age. No difference in treatment effect or systemic exposure was seen with increasing age.

10 OVERDOSAGE

Doses of Macugen up to 10 times the recommended dosage of 0.3 mg have been studied. No additional adverse events have been noted but there is decreased efficacy with doses above 1 mg.

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