

**HIGHLIGHTS OF PRESCRIBING INFORMATION**

These highlights do not include all the information needed to use LUCENTIS safely and effectively. See full prescribing information for LUCENTIS.

**LUCENTIS® (ranibizumab injection)  
For Intravitreal Injection  
Initial U.S. Approval: 2006**

**RECENT MAJOR CHANGES**

Indications and Usage, Myopic Choroidal Neovascularization (mCNV) (1.5)	01/2017
General Dosing Information (2.1)	11/2016
Dosage and Administration, Myopic Choroidal Neovascularization (mCNV) (2.6)	01/2017
Dosage and Administration, Preparation for Administration (2.7)	11/2016
Dosage and Administration, Administration (2.8)	10/2016

**INDICATIONS AND USAGE**

LUCENTIS, a vascular endothelial growth factor (VEGF) inhibitor, is indicated for the treatment of patients with:

- Neovascular (Wet) Age-Related Macular Degeneration (AMD) (1.1)
- Macular Edema Following Retinal Vein Occlusion (RVO) (1.2)
- Diabetic Macular Edema (DME) (1.3)
- Diabetic Retinopathy in patients with DME (1.4)
- Myopic Choroidal Neovascularization (mCNV) (1.5)

**DOSAGE AND ADMINISTRATION**

For Ophthalmic Intravitreal Injection Only (2.1)

**Neovascular (Wet) Age-Related Macular Degeneration (AMD) (2.2)**

LUCENTIS 0.5 mg (0.05 mL) is recommended to be administered by intravitreal injection once a month (approximately 28 days).

Although not as effective, patients may be treated with 3 monthly doses followed by less frequent dosing with regular assessment.

Although not as effective, patients may also be treated with one dose every 3 months after 4 monthly doses. Patients should be assessed regularly.

**Macular Edema Following Retinal Vein Occlusion (RVO) (2.3)**

- LUCENTIS 0.5 mg (0.05 mL) is recommended to be administered by intravitreal injection once a month (approximately 28 days).

**Diabetic Macular Edema (DME) and Diabetic Retinopathy (DR) in patients with Diabetic Macular Edema (2.4, 2.5)**

- LUCENTIS 0.3 mg (0.05 mL) is recommended to be administered by intravitreal injection once a month (approximately 28 days).

**Myopic Choroidal Neovascularization (mCNV) (2.6)**

- LUCENTIS 0.5 mg (0.05 mL) is recommended to be initially administered by intravitreal injection once a month (approximately 28 days) for up to three months. Patients may be retreated if needed.

**DOSAGE FORMS AND STRENGTHS**

Single-use prefilled syringe designed to provide 0.05 mL for intravitreal injections:

- 10 mg/mL solution (LUCENTIS 0.5 mg) (3)

Single-use glass vial designed to provide 0.05 mL for intravitreal injections:

- 10 mg/mL solution (LUCENTIS 0.5 mg) (3)
- 6 mg/mL solution (LUCENTIS 0.3 mg) (3)

**CONTRAINDICATIONS**

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

**WARNINGS AND PRECAUTIONS**

- Endophthalmitis and retinal detachments may occur following intravitreal injections. Patients should be monitored following the injection (5.1).
- Increases in intraocular pressure (IOP) have been noted both pre- and post-intravitreal injection (5.2).
- There is a potential risk of arterial thromboembolic events following intravitreal use of VEGF inhibitors (5.3).
- Fatal events occurred more frequently in patients with DME and DR at baseline, who were treated monthly with LUCENTIS compared with control (5.4).

**ADVERSE REACTIONS**

- The most common adverse reactions (reported more frequently in LUCENTIS-treated subjects than control subjects) are conjunctival hemorrhage, eye pain, vitreous floaters, and increased IOP (6.2).

To report SUSPECTED ADVERSE REACTIONS, contact Genentech at 1-888-835-2555 or FDA at 1-800-FDA-1088 or [www.fda.gov/medwatch](http://www.fda.gov/medwatch).

See 17 for PATIENT COUNSELING INFORMATION.

Revised: 01/2017

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## FULL PRESCRIBING INFORMATION

### 1 INDICATIONS AND USAGE

LUCENTIS is indicated for the treatment of patients with:

- 1.1 Neovascular (Wet) Age-Related Macular Degeneration (AMD)
- 1.2 Macular Edema Following Retinal Vein Occlusion (RVO)
- 1.3 Diabetic Macular Edema (DME)
- 1.4 Diabetic Retinopathy (Non Proliferative Diabetic Retinopathy (NPDR), Proliferative Diabetic Retinopathy (PDR)) in patients with Diabetic Macular Edema (DME)
- 1.5 Myopic Choroidal Neovascularization (mCNV)

### 2 DOSAGE AND ADMINISTRATION

#### 2.1 General Dosing Information

FOR OPHTHALMIC INTRAVITREAL INJECTION ONLY.

*Vials:* A 5-micron sterile filter needle (19-gauge x 1-1/2 inch), a 1-mL Luer lock syringe and a 30-gauge x 1/2 inch sterile injection needle are needed but not included.

#### 2.2 Neovascular (Wet) Age-Related Macular Degeneration (AMD)

LUCENTIS 0.5 mg (0.05 mL of 10 mg/mL LUCENTIS solution) is recommended to be administered by intravitreal injection once a month (approximately 28 days).

Although not as effective, patients may be treated with 3 monthly doses followed by less frequent dosing with regular assessment. In the nine months after 3 initial monthly doses, less frequent dosing with 4-5 doses on average is expected to maintain visual acuity while monthly dosing may be expected to result in an additional average 1-2 letter gain. Patients should be assessed regularly [*see Clinical Studies (14.1)*].

Although not as effective, patients may also be treated with one dose every 3 months after 4 monthly doses. Compared with continued monthly dosing, dosing every 3 months over the next 9 months will lead to an approximate 5-letter (1-line) loss of visual acuity benefit, on average. Patients should be assessed regularly [*see Clinical Studies (14.1)*].

#### 2.3 Macular Edema Following Retinal Vein Occlusion (RVO)

LUCENTIS 0.5 mg (0.05 mL of 10 mg/mL LUCENTIS solution) is recommended to be administered by intravitreal injection once a month (approximately 28 days).

In Studies RVO-1 and RVO-2, patients received monthly injections of LUCENTIS for 6 months. In spite of being guided by optical coherence tomography and visual acuity re-treatment criteria, patients who were then not treated at Month 6 experienced on average, a loss of visual acuity at Month 7, whereas patients who were treated at Month 6 did not. Patients should be treated monthly [*see Clinical Studies (14.2)*].

#### 2.4 Diabetic Macular Edema (DME)

LUCENTIS 0.3 mg (0.05 mL of 6 mg/mL LUCENTIS solution) is recommended to be administered by intravitreal injection once a month (approximately 28 days).

### 2.5 Diabetic Retinopathy in Patients with Diabetic Macular Edema (DME)

LUCENTIS 0.3 mg (0.05 mL of 6 mg/mL LUCENTIS solution) is recommended to be administered by intravitreal injection once a month (approximately 28 days).

### 2.6 Myopic Choroidal Neovascularization (mCNV)

LUCENTIS 0.5 mg (0.05 mL of 10 mg/mL LUCENTIS solution) is recommended to be initially administered by intravitreal injection once a month (approximately 28 days) for up to three months. Patients may be retreated if needed [(see *Clinical Studies 14.5*)].

### 2.7 Preparation for Administration

#### *Prefilled Syringe:*

To prepare LUCENTIS for intravitreal administration, please adhere to these instructions for use. Read all the instructions carefully before using the prefilled syringe.

How to store LUCENTIS:

1. LUCENTIS should be refrigerated at 2°-8°C (36°-46°F). **Do not** freeze.
2. **Do not** use beyond the expiration date stamped on the label.
3. Protect LUCENTIS prefilled syringes from light and store in the original carton until time of use.
4. **Do not** open the sealed tray until time of use.

The prefilled syringe is for single use only. The prefilled syringe is sterile. **Do not** use the product if the packaging is damaged or has been tampered with.

The opening of the sealed tray and all subsequent steps should be done under aseptic conditions.

For the intravitreal injection, a 30-gauge x ½ inch sterile injection needle should be used (not provided).

**Note: the dose must be set to 0.05 mL.**

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#### Device description

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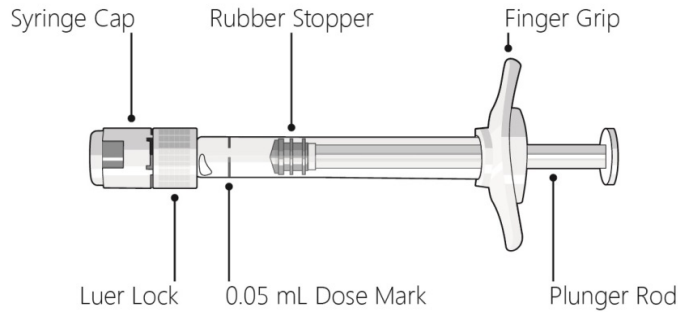


Figure 1

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### Step 1: Prepare

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- Make sure that your pack contains a sterile prefilled syringe in a sealed tray.
- Peel the lid off the syringe tray and, using aseptic technique, remove the syringe.

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### Step 2: Inspect syringe

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- LUCENTIS should be colorless to pale yellow.
- **Do not** use the prefilled syringe if:
  - the syringe cap is detached from the Luer lock.
  - the syringe is damaged.
  - particulates, cloudiness, or discoloration are visible.

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### Step 3: Remove syringe cap

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- Snap off (**do not** turn or twist) the syringe cap (see Figure 2).

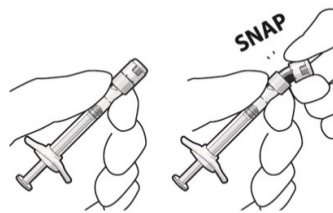


Figure 2

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### Step 4: Attach needle

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- Attach a 30G x ½ inch sterile injection needle firmly onto the syringe by screwing it tightly onto the Luer lock (see Figure 3).
- Carefully remove the needle cap by pulling it straight off.

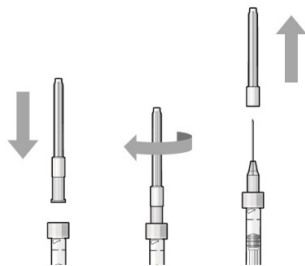


Figure 3

**Note: Do not wipe the needle at any time.**

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### Step 5: Dislodge air bubbles

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- Hold the syringe with the needle pointing up.
- If there are any air bubbles, gently tap the syringe with your finger until the bubbles rise to the top (see Figure 4).

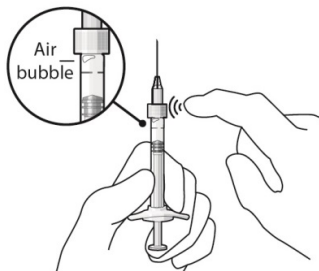


Figure 4

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### Step 6: Expel air and adjust drug dose

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Hold the syringe at eye level, and carefully push the plunger rod until the **edge below the dome** of the rubber stopper is aligned with the 0.05 mL dose mark (see Figure 5).

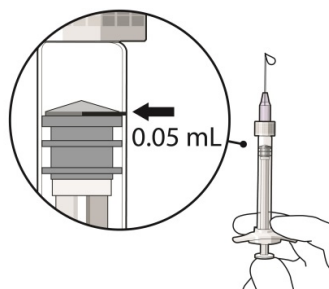


Figure 5

**Note: The plunger rod is not attached to the rubber stopper – this is to prevent air being drawn into the syringe.**

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### Step 7: Inject

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- The injection procedure should be carried out under aseptic conditions.

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