Drug Monograph

Drug/Drug Class:	**Emgality™ (galcanezumab-gnlm) solution for injection / Calcitonin Gene-Related Peptide Receptor Antagonist**
Prepared for:	MO HealthNet
Prepared by:	Conduent

☒ **New Criteria** ☐ **Revision of Existing Criteria**

Executive Summary

Purpose:	The purpose of this monograph is to provide a review of new therapy to determine whether the reviewed drug should be made available on an open access basis to prescribers, require a clinical edit or require prior authorization for use.
Dosage Forms & Manufacturer:	Emgality™ is available as a 120 mg/mL single-dose prefilled pen or syringe. Distributed by: Eli Lilly and Company, Indianapolis, IN 46285.
Summary of Findings:	In a randomized, double-blind, three-part clinical trial (N=2886), Emgality™ showed improved efficacy versus placebo at both episodic and chronic migraine endpoints. During the three and six-month trial the most common adverse reaction with Emgality™ was injection site reactions. Patients should be monitored closely for hypersensitivity reactions while taking Emgality™.
Status Recommendation:	☐ Prior Authorization (PA) Required ☐ Open Access ☒ Clinical Edit ☐ PDL
Type of PA Criteria:	☐ Increased Risk of ADE ☐ Non-Preferred Agent ☒ Appropriate Indications ☐ No PA Required

Purpose

The purpose of this monograph is to provide a review of new therapy to determine whether the reviewed drug should be considered a prior authorization drug, a clinical edit drug or an open access drug. While prescription expenditures are increasing at double-digit rates, payers are evaluating ways to control these costs by influencing prescriber behavior and guide appropriate medication usage. This review will assist in the achievement of qualitative and economic goals related to health care resource utilization. Restricting the use of certain medications can reduce costs by requiring documentation of appropriate indications for use, and where appropriate, encourage the use of less expensive agents within a drug class.

Introduction [2]

Migraine is a neurological disease that affects as many as 1 in 4 U.S. households. This widespread disease ranks 6th in the world for most disabling illness. While migraine affects women more than men, 18% to 6% respectively, it is still labeled as the 3rd most prevalent disease in the world and is estimated to affect nearly 39 million people in the U.S. alone. A migraine attack is more than just a headache and can present with nausea, vomiting, visual impairments, sensitivity to light and sound to name a few. One treatment option for migraine sufferers is to prevent a migraine using medications prophylactically. There are several prophylactic treatment options available with the newest form being calcitonin gene-related peptide (CGRP) inhibitors. This class of medication act to block the vasodilating CGRP neuropeptide believed to be vital to migraine presentation. To date there are three monoclonal antibodies in this class all of which coming to market in 2018.

Dosage Form(s) [1]

Emgality™ is available as a 120 mg/mL single-dose prefilled pen or syringe.

Manufacturer [1]

Distributed by: Eli Lilly and Company, Indianapolis, IN 46285.

Indication(s) [1]

Emgality™ is indicated for the preventative treatment of migraine in adults.

Clinical Efficacy [1] (mechanism of action/pharmacology, comparative efficacy)

Emgality™ is a humanized monoclonal antibody that binds to the calcitonin gene-related peptide (CGRP) antagonist and prevents its binding to the receptor. Emgality™ is approved for the prevention of migraine in adult patients.

Pharmacokinetics:

	Emgality™
Volume of Distribution	~7.3 L
Metabolism	Degraded by enzymatic proteolysis
Excretion	Clearance 0.008 L/h
Half-life	~27 Days

Efficacy in Preventative Treatment of Episodic or Chronic Migraine

STUDY DESIGN	Three multi-centered, double-blind, randomized, placebo-controlled clinical trial (N=2886).
INCLUSION CRITERIA	Adult patients with a history of episodic migraine as defined by 4-14 migraine days per month or history of chronic migraine as defined by ≥15 headache days per month with ≥8 migraine days per month.
EXCLUSION CRITERIA	Parts 1 and 2 of the study excluded patients on any other migraine preventive treatment, patients with medication overuse headache, patients with ECG abnormalities compatible with an acute cardiovascular event. Parts 1, 2 and 3 excluded patients with a history of stroke, myocardial infarction, unstable angina, percutaneous coronary intervention, coronary artery bypass grafting, deep vein thrombosis, or pulmonary embolism within 6 months of screening. Part 3 of the study
TREATMENT REGIMEN	Patients in part 1 of the study (episodic migraine) were randomized to receive Emgality™ 120 mg, 240 mg or placebo monthly for 6 months. 858 patients were randomized with 703 completing the 6-month study. The second part of the study had 915 patients with 785 patients reaching the 6-month endpoint. In the third part of the study (chronic migraine) patients were randomized to randomized to receive Emgality™ 120 mg, 240 mg or placebo monthly over a 3-month period. 1113 patients were randomized with 1037 completing the 3-month study.
RESULTS	The three-part clinical trial showed statistically significant improvement for efficacy endpoints compared to placebo in both parts of the study. For parts 1 and 2 of the study, endpoints were defined by mean change from baseline monthly migraine days, ≥50% migraine headache days responders, monthly acute migraine-specific medication days and the average Migraine-Specific Quality of Life Questionnaire (MSQ) Role Function-Restrictive domain score. The 120 mg dose of Emgality™ showed improvement over placebo in all endpoints over the 6-month period. The 240 mg monthly dose showed to additional benefit over the Emgality™ 120 mg dose. In part 3 of the study, efficacy endpoints of change from baseline in monthly migraine headache days, ≥50% migraine headache days responders and monthly acute migraine-specific medication days and the average Migraine-Specific Quality of Life Questionnaire (MSQ) Role Function-Restrictive domain score. Emgality™ 120 mg showed significant improvement versus placebo for the mean change from baseline in the number of monthly migraine headache days and in the mean percentage of patient reaching at least

	50% reduction from baseline in the number of monthly migraine headache days.
SAFETY	The most common adverse reactions were injection site reactions. These included injections site pain, induration and erythema.

Contraindications (1)

- Emgality™ is contraindicated in patients with a serious hypersensitivity to galcanezumab-gnlm or to any of the excipients.

Warnings and Precautions (1)

- Emgality™ has a warning for hypersensitivity reactions. This includes rash, urticaria and dyspnea. Hypersensitivity reactions can occur days after administration and may be prolonged. If any of these reactions occur, therapy should be discontinued, and appropriate therapy should be initiated.

Adverse Effects (1)

Most common, ≥ 2%	**Emgality™ 120 mg Monthly (N=705)**	**Placebo (N=1451)**
Injection Site Reaction	18%	13%

Drug Interactions (1)

- Emgality™ can potentially increase the adverse/toxic effect of Belimumab and therefore combination should be avoided.

Dosage and Administration (1)

Emgality™ is to be given subcutaneously as a 240 mg loading dose (two consecutive 120 mg injections) then a monthly 120 mg dose. Patients and/or caregivers should be provided training on how to prepare and administer Emgality™ including aseptic technique. Emgality™ should not be administered in areas where the skin is tender, bruised, red or hard.

Cost

BRAND NAME	MANUFACTURER	STRENGTH	DOSE	COST/MONTH*

Emgality™	Eli Lilly	120 mg/mL	Monthly	$575
Aimovig™	Amgen	70 mg/mL	Monthly	$575
Ajovy™	Teva	225 mg/1.5 mL	Monthly or Quarterly	$575

* Wholesale Acquisition Cost

Conclusion

Emgality™ is a monoclonal antibody available in injection form that blocks CGRP for use in adults for the preventative treatment of migraine. In a three-part double-blind study (N=2886), Emgality™ showed statistically significant improvement versus placebo in both episodic and chronic migraine endpoints. The most common adverse reaction during the study was injection site reactions. There are several medications used for the prevention of migraines and multiple factors should be addressed when selecting an appropriate regimen. While Emgality™ was well tolerated in clinical trials, the medication is very costly when compared to other medication options that have generic forms available. As with any injectable medication, proper training and ability should be confirmed before starting a patient on Emgality™. Patients should be monitored for signs and symptoms of hypersensitivity reactions while using this medication.

Recommendation

The Division recommends adding this drug to the current CGRP Clinical Edit.

References

1) Product Information: Emgality™ (galcanezumab-gnlm), Eli Lilly and Company, Indianapolis, IN 46285 09/2018.
2) Jazwinder, Chawla MD, Helmi, Lutsep MD et al. Migraine Headache Treatment & Management January 30,2018 Medscape.

Prepared by: Tyler Woods PharmD
Date: January 18, 2019

