CAREPATHrx™
Specialty Pharmacy & Infusion Solutions

GUIDELINES FOR OUTPATIENT INTRAVENEOUS VYEPTI (EPTINEZUMAB-JJMR) THERAPY

Section: Nursing
Compliance: ACHC Infusion Pharmacy
ACHC Standards: N/A
URAC Standards: N/A
TJC Standards: N/A
Policy ID: NUR242
Effective: 9/21/22
Reviewed:
Revised:
Approved by, Title and Date Approved: Kathleen Patrick, 9/21/22

I. POLICY

Eptinezumab-jjmr is a humanized immunoglobulin G1 (IgG1) monoclonal antibody specific for calcitonin gene-related peptide (CGRP) ligand used for the preventive treatment of migraine in adults. Migraines are associated with activation of trigeminal durovascular nociceptive afferents and release of CGRP. Eptinezumab binds to both isoforms of CGRP and inhibits the interaction between CGRP and its' receptor. Through inhibition of the CGRP ligand, eptinezumab is a preventative treatment for patients with chronic and episodic migraines. Eptinezumab is currently formulated for IV administration every three months.

The following outlines the procedures and protocol for coordination of servicing patients in need of outpatient eptinezumab home infusions.

II. PATIENT ACCEPTANCE CRITERIA

A. All candidates for home care service must be evaluated by the clinician(s) and deemed appropriate to receive home care based upon admission criteria.

B. The decision to administer a first dose of eptinezumab in the home will be determined on a case-by-case basis and reviewed by nursing and pharmacy management. Appropriateness of subsequent doses for home administration will be reviewed. Date of prior infusion must be provided, if applicable. The following criteria will be evaluated:
    1. Prescriber preference
    2. Allergy profile
    3. Other relevant social and/or medical history

C. Onboarding information will include:
    1. Past medical history

2. For female patients of child-bearing age, confirm if they are pregnant or have plans to become pregnant. Advise patients to notify their healthcare provider if they become pregnant during treatment or plan to become pregnant and/or breastfeed
3. Fax/email information for prescribing office

D. All patients will require an anaphylaxis kit in the home due to the risk of hypersensitivity reactions. Dispensing pharmacy treatment protocol for anaphylaxis will be instituted unless more comprehensive patient-specific orders are provided by a physician. See policy NUR012 (Appendix A)

E. Physician orders for eptinezumab-jjmr will include:
1. Drug and dose
2. Administration frequency
3. Route of administration
4. Anaphylaxis protocol
5. Line care orders

III. PHARMACOLOGIC OVERVIEW

A. Indications
1. Eptinezumab-jjmr is indicated for the preventive treatment of migraine in adults

B. Dosing
1. 100 mg administered by intravenous infusion every 3 months
2. Some patients may benefit from a dosage of 300 mg every 3 months.

C. Contraindications
1. Patients with serous hypersensitivity to eptinezumab-jjmr or to any of the excipients.

D. Precautions
1. Hypersensitivity reactions occurred in clinical trials:
a. Angioedema
b. Urticaria
c. Facial flushing
d. Rash
2. Most reactions occurred during the infusion, were not serious, but led to discontinuation or required treatment.

E. Adverse Reactions
1. Hypersensitivity reactions

F. Drug Interactions
1. Eptinezumab-jjmr is not metabolized by cytochrome P450 enzymes.
2. No alteration in pharmacokinetics when administered with subcutaneous sumatriptan.

G. Pharmacokinetics:
1. Eptinezumab-jjmr exhibits linear pharmacokinetics, and exposure increases proportionally with doses from 100 mg to 300 mg after intravenous administration. Steady-state plasma concentration is attained after the first dose with a once every 3-month dosing schedule.
2. Distribution

a. The central volume of distribution (Vc) is approximately 3.7 L.

3. Metabolism and elimination: Eptinezumab-jjmr is expected to be degraded by proteolytic enzymes into small peptides and amino acids. The apparent clearance was 0.006 L/h, and the terminal elimination half-life was approximately 27 days.

IV. ADMINISTRATIVE GUIDELINES

A. IV infusions should be given immediately after dilution; diluted solution must be used within one hour of preparation per current USP Immediate-Use Guidelines. **Use in-line 0.2micron low protein binding filter.**

B. Dosing
   1. 100 mg or 300 mg over 30 minutes every three months

C. Therapy duration
   1. Discontinue therapy if treatment is unsuccessful after two treatment cycles (at 6 months after initiation). Maintenance treatment duration has not been defined.

D. Dose adjustment:
   1. No dose adjustment for renal or hepatic impairment are noted in manufacturer labeling, however impairment is not expected to alter pharmacokinetics.
   2. Clinical trials did not include enough patients aged 65 and over.

V. NURSING PROCEDURE

A. Supplies
   1. Alcohol Swabs
   2. Gloves
   3. Vial(s) of eptinezumab-jjmr (100 mg/mL)
   4. Bag of sodium chloride 0.9% for dilution (100 mL)
   5. Sodium chloride flushes
   6. IV Pole
   7. IV Start Kit
   8. Peripheral IV catheter (22-gauge x 1" and 24 gauge x ¾")
   9. Port access needle (22 Gauge x ¾ to 1" safe step)
   10. Tape
   11. Extension set 8"
   12. IV injection cap
   13. IV administration set with 0.2-micron filter
   14. Dial-a-flow tubing with extension set 0.2-micron filter
   15. Syringes (5mL and 10mL, and various sizes depending on dose) and Needles (20Gx1")
   16. Sharp container

B. How supplied
   1. Eptinezumab-jjmr injection is a sterile, preservative-free, clear to slightly opalescent, colorless to brownish-yellow solution supplied as a carton containing one 100 mg/mL single-dose vial
   2. Storage and handling

a. Store refrigerated at 2°C to 8°C (36°F to 46°F) in the original carton to protect from light until time of use. Do not freeze. Do not shake.

C. Compatibility
1. Stable in NS. Do not infuse with other agents.

D. Procedures
1. Explain reasoning for visit and use of eptinezumab-jjmr
2. Confirm pregnancy status for females of reproductive age. Developmental risks associated with the use of eptinezumab in pregnant women has not been studied.
3. Don gloves
4. Establish venous access prior to preparing drug product
5. Counsel patient on warnings, precautions, and potential side effects
    a. Hypersensitivity reactions including angioedema, itching, facial flushing, and rash
    b. Nasopharyngitis/cold
6. Obtain vitals prior to starting infusion
7. Remove eptinezumab-jjmr vials from refrigerator and allow to stand to reach room temperature. Inspect eptinezumab-jjmr vials prior to preparation. Do not use if opaque particles, discoloration, or other foreign particles are present.
8. Prepare infusion
    a. Each eptinezumab vial contains 100 mg. Withdraw 100mg/1mL (from 1 vial) or 300mg/3mL (from 3 vials). Inject prescribed dose into 100 mL normal saline bag.
    b. Gently invert the solution to mix completely. Do not shake.
9. Infuse eptinezumab-jjmr over a total of 30 minutes (rate= 101 mL/h) via dial-a-flow or gravity tubing with a **0.2-micron filter**.
10. Monitor vitals periodically throughout the infusion
11. After the infusion is complete, flush the line with 20 mL of 0.9% Saline

VI. CLINICAL MONITORING

A. Monitor for signs and symptoms of hypersensitivity reactions: Monitor patients periodically during administration and thereafter for clinical signs and symptoms of hypersensitivity reactions including rash, angioedema, and dyspnea. If a hypersensitivity reaction occurs during administration, discontinue eptinezumab-jjmr infusion and institute appropriate supportive measures if needed. NUR012 (Appendix A)

B. Immunogenicity: As with all monoclonal antibodies, there is a potential for immunogenicity. In clinical trials, approximately 20% of patients developed anti-eptinezumab-jjmr antibodies and approximately 40% of those patients developed neutralizing antibodies. The available data is too limited to make definitive conclusions on immunogenicity. Patients should be monitored for disease progression and therapy efficacy. In addition, the ordering provider may order periodic labs to check for various antibodies.

C. Monitor disease progression and symptoms of migraine including unilateral, pulsating, or throbbing head pain, nausea, vomiting, photophobia, phonophobia, and blurred vision. The clinical trial efficacy endpoint used was monthly migraine days (MMD). MMD should be used to monitor disease progression. The following patient-reported outcome measures were used during clinical trials:

1. Headache Impact Test (HIT-6): Patient completed survey that consists of 6 questions

regarding headache symptoms and its impact on QoL (i.e., impact on ADLs and mood).

2. SF-36v2: Patient completed survey that consists of 36 questions and measures patient functional health and well-being. It is a non-specific QoL survey that can be used across ages, diseases, and treatment groups.
3. EuroQoL 5-Dimensions 5-Levels: Patient completed survey that measures 5-dimensions (mobility, self-care, usual activities, pain/discomfort, and anxiety/depression). Each dimension has 5 levels that range from no problems to extreme problems.
4. Patient Global Impression of Change: Patient answered single question that measures the patient's impression of their global improvement based on a 7-point scale (1=very much improved and 7=very much worse).

Please refer to the package insert for the most up to date guidance on this medication.

REFERENCES

Vyepti [package insert]. Bothell,WA: Lundbeck; 2020.

Lipton RB, Goadsby PJ, Smith J, et al. Efficacy and safety of eptinezumab in patients with chronic migraine: PROMISE-2. *Neurology*. 2020;94(13):e1365-e1377.

Yan Z, Xue T, Chen S, et al. Different dosage regimens of Eptinezumab for the treatment of migraine: a meta-analysis from randomized controlled trials. *J Headache Pain*. 2021;22(1):10. Published 2021 Mar 6. doi:10.1186/s10194-021-01220-y

Ailani J, Burch RC, and Robbins MS. The American Headache Society Consensus Statement: Update on integrating new migraine treatments into clinical practice. *J Headache Pain*. 2021;61(7):1021-1039.

APPENDIX A: ANAPHYLAXIS KIT INTRUCTIONS

Emergency Medication After Your Infusion

Please call your pharmacy if you have any questions or concerns. In the event of an emergency, always call 911.

Your nurse will tell you when you need to use Emergency Medications.
The epinephrine dose will be noted on the Anaphylaxis Protocol included with your kit.

Start with a clean work surface and clean hands.

Open the supply bag labeled Anaphylaxis Kit Contents.

You will need:

1. **Bag containing Pills** (2 Acetaminophen and 2 Diphenhydramine)
2. **Bag containing Alcohol Prep Pads**
3. **Bag labeled IM Epinephrine**

All other contents will not be needed.

Open the IM Epinephrine Bag

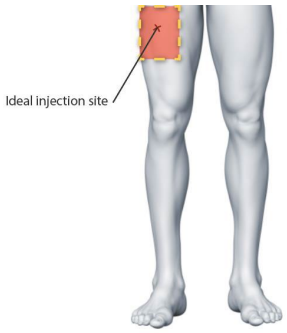
1. **Remove 1 of each item**
    a. 1 -syringe
    b. 1 – brown labeled filter needle (BD Filter Needle)- **for ampule use only**
    c. 1 – black labeled safety needle (Magellan Hypodermic Safety Needle 22G x 1”)
    d. 1 ampule of epinephrine

Prepare IM (intramuscular) injection of Epinephrine:

1. **Attach the brown filtered needle to syringe**
    a. Be careful to not touch the tip of the syringe or the needle.
2. Using an **alcohol swab, wipe the neck of the epinephrine ampule.**
3. Holding the ampule upright, **swirl and flick the ampule until all fluid flows to the bottom chamber** (the top chamber should be empty).
4. Using a new alcohol wipe, grasp the neck of the ampule and with your other hand grasp the bottom chamber of the ampule. **Quickly snap the top of the ampule off, directing the snap way from you.**

5. **Place the tip of the brown filter needle inside the ampule**. Tilting the ampule, **withdraw dose of medication into the syringe** by gently pulling back on the plunger. Be careful to not pull the plunger out of the syringe.
6. Remove the needle from the ampule and h**old the syringe upright** with the needle pointing upward. **Gently tap the side of the syringe to bring any air to the top of the syringe.**
7. **Push the air out of the syringe by gently pushing on the plunger**.
8. Replace the cap on the brown filter needle. Discard remainder in ampule.
9. **Remove the brown filter needle and place the black safety needle onto the syringe.**

Give your IM Epinephrine injection



1. **Grasp your leg muscle at the outer mid-thigh** and **cleanse the area** with a new alcohol wipe.
2. **Push the needle into your leg muscle straight** in at a 90-degree angle.
3. **Inject the medication** by depressing the plunger in a slow and steady motion.
4. **Remove the needle** and wipe the site with the alcohol wipe.
5. May repeat dose every 5 minutes (**maximum 3 doses**) if ordered per protocol.

Take the pills by mouth.

a. 2 – Acetaminophen
b. 2 – Diphenhydramine

Place all trash in the bag the pills came in and take with you when you seek medical care. **Give the bag to the nurse or EMT**, so your doctor will know what medication you already took. They will properly dispose of the syringe and needles.
Call 911 or have someone drive you to the emergency department.