CAREPATHrx™
Specialty Pharmacy & Infusion Solutions

CLINICAL GUIDELINES FOR INTRAVENOUS ANIFROLUMAB-FNIA (SAPHNELO)

Section: Nursing
Compliance: ACHC Infusion Pharmacy
ACHC Standards: N/A
URAC Standards: N/A
TJC Standards: N/A
Policy ID: NUR232
Effective: 3/1/22
Reviewed: 5/1/22
Revised:
Approved by: Kathleen Patrick, 3/1/22

I. POLICY

Anifrolumab-fnia (Saphnelo) is a human immunoglobulin G1 kappa (IgG1k) monoclonal antibody that inhibits type 1 IFN signaling by inducing the internalization of IFNAR1 when bound to the type 1 interferon receptor. The reduction of IFNAR1 available on the cell surface causes a blockade of receptor mediated type 1 IFN signaling that inhibits IFN responsive gene expression, and therefore dampens the inflammatory and immunologic processes downstream. Anifrolumab-fnia is indicated for moderate to severe systemic lupus erythematosus (SLE). The following outlines the procedures and protocols for coordination of servicing patients in need of outpatient anifrolumab-fnia 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 in the home by a field nurse will be determined on a case-by-case basis and reviewed by nursing and pharmacy management. The following criteria will be evaluated:
   1. Prescriber preference
   2. Allergy profile
   3. Ability to secure contracted nursing for subsequent infusions
   4. Other relevant social and/or medical history

C. CarepathRx treatment protocol for anaphylaxis will be instituted unless a more comprehensive patient-specific orders are provided by physician. See policy NUR012 (Appendix A).

III. PHARMACOLOGY OVERVIEW

A. Indications:
   1. Treatment of adult patients with moderate to severe systemic lupus erythematosus (SLE) who are receiving standard therapy

B. Dosage
    1. Systemic lupus erythematosus (SLE) [≥ 18yrs]:
       IV: 300mg IV infusion over 30 minutes every 4 weeks
       Missed dose: Administer planned infusion as soon as possible but maintain at least 14 days between infusions

C. Contraindications: Known history of anaphylaxis to anifrolumab-fnia or any of its components

D. Precautions
    1. Serious infections
        a. Serious and potentially fatal infections may occur during treatment. Monitor closely and consider interrupting anifrolumab-fnia in patients who develop new infections while appropriate anti-infective therapy is administered. Consider the risks and benefits of administering anifrolumab-fnia in patients who have chronic infections or are at high risk for developing infections before starting therapy. Do not start therapy in a patient who has an active serious infection until it has resolved. Anifrolumab-fnia increases the risk of respiratory infections and Herpes Zoster.

    2. Hypersensitivity reactions
        a. Hypersensitivity reactions, including anaphylaxis and angioedema, have been reported following the administration of anifrolumab-fnia. If the reactions are minor, patient can be premedicated with Benadryl 25mg oral 30 minutes prior to anifrolumab-fnia infusion is recommended. Oral medication NOT supplied by pharmacy.

    3. Use with biologic therapies is not recommended.

    4. Infusion reactions
        a. Similar to hypersensitivity reactions, with symptoms including angioedema, bradycardia, dyspnea, headache, hypotension, myalgia, pruritus, rash, nausea, vomiting, fatigue, dizziness and urticaria. Monitor following administration and slow or temporarily interrupt infusion for infusion reactions. May consider premedication prior to infusion.

    5. Malignancy
        a. The impact of Saphnelo on the potential development of malignancies is not known. Immunosuppressants may increase risk of malignancy. Consider the individual benefit-risk in patients who develop malignancies.

    6. Pregnancy/Lactation
        a. Available data on use of anifrolumab-fnia in pregnant women is insufficient. If pregnancy occurs while receiving Saphnelo, enroll in Saphnelo pregnancy registry for monitoring.
        b. It is not known if Saphnelo passes into human milk. The effects on a breastfed child of mother on anifrolumab-fnia are unknown.

    7. Live Vaccinations
        a. Avoid concurrent use of live or live-attenuated vaccines in patients who are treated with anifrolumab-fnia.

b. Update vaccinations according to current immunization guidelines prior to initiation of anifrolumab-fnia.

E. Pharmacokinetics

1. Peak concentration
   a. Cmax: 1.36
   b. Steady state: reached on day 85

2. Volume of distribution: 6.23 L

3. Total body clearance: 0.193 L/day

F. Adverse Reactions

1. Dermatologic: Incidences include breast cancer and squamous cell carcinoma and non-melanoma skin cancers (1.3%)

2. Immunologic: Herpes zoster (6.1%), hypersensitivity reaction (2.8%)

3. Respiratory: Serious infectious disease (4.8%), bronchitis (11%), URTI (34%), infectious diseases (69.7%), cough (5%)

4. Other: Infusion reactions (9.4%)

G. Drug Interactions

1. No formal drug interaction studies have been conducted.

2. Avoid concurrent use of biologic products with anifrolumab-fnia; co-administration could cause additive effects from both therapies.

3. Avoid administration of live or live-attenuated vaccines while using anifrolumab-fnia therapy; concurrent use may result in decreased efficacy of immunization.

IV. ADMINISTRATIVE GUIDELINES

A. Administration Guidelines

1. IV infusions should be given immediately after reconstitution; diluted solution must be used within 1 hour of preparation per current USP Immediate-Use Guidelines. **Use in-line 0.2-micron low protein-binding filter per AstraZeneca prescribing information.**

2. Do not co-administer other medicinal products in the same infusion line.

B. Dosage

1. Systemic lupus erythematosus (SLE) [≥18yrs]:

a. IV: 300mg IV infusion over 30 minutes every 4 weeks
b. Missed dose: Administer planned infusion as soon as possible but maintain at least 14 days between infusions.

C. Duration

1. Duration of therapy should be dependent on patient response and adverse reaction. No specific duration is noted in package insert.

D. Dose Adjustment

1. No dosage adjustment is recommended in patient with renal or hepatic impairment

E. Patient Monitoring

1. Monitor for improvements in objective measures of disease activity.

2. Monitor for signs and symptoms of hypersensitivity reactions (during and after).

3. Infusion reactions may occur. Premedication may be helpful as prophylaxis.
   a. Consider premedicating with an antihistamine and antipyretic for hypersensitivity/infusion reactions in patients with prior history.
   b. Discontinue infusion for severe hypersensitivity reaction.

4. Treatment for hypersensitivity reactions should be available via anaphylaxis kit.

V. NURSING PROCEDURE

A. Supplies:

1. Alcohol Swabs
2. Gloves
3. #1 Vial of Anifrolumab-fnia (300mg/2mL)
4. Bag of sodium chloride 0.9% for dilution (100 mL)
5. Dressing change kit
6. IV Pole
7. IV Start Kit
8. Peripheral IV catheter (ex. 22 Gauge x1" and 24 Gauge x ¾" for patients needing peripheral access)
9. Port access needle (ex. 22 Gauge x ¾ to 1" safe step for patients with a port)
10. Tape
11. Extension set 8"
12. IV injection cap
13. IV administration set (dial-a-flow or gravity) with in-line or add-on 0.22-micron filter
14. Syringes (10mL) with needles (20 G x 1")
15. Normal Saline (0.9%) Injection 50mL bag for flushing product from tubing
16. Sharps container

B. How Supplied

1. Anifrolumab-fnia for injections is provided as a 2mL clear glass vial containing 300mg/2mL (150mg/mL). The solution should appear clear to opalescent, colorless to slightly yellow. When reconstituted the final concentration will be 3mg/mL. Refer to specific product packing and prescribing information for NDC, storage, stability, and excursion information.

C. Storage and Handling

1. Store vials at 36°F to 46°F (2°C to 8°C) in original carton protected from light. Do not freeze or shake.
2. Diluted product must be used within 1 hour of preparation. Protect from light.
3. Refer to specific product packing and prescribing information for storage, stability, and excursion information.

D. Compatibility

1. Stable in NS
2. Do not infuse with other agents.
3. Do not dilute with D5W, ½ NS or LR.

E. Procedures

1. Explain the reasoning for visit and use of anifrolumab-fnia.
2. Don gloves
3. Establish venous access prior to preparation of drug.
4. Counsel patient on warnings, precautions, and potential side effects including but not limited to: Hypersensitivity reactions, respiratory infections, bronchitis, headache (migraine), herpes zoster, and cough.
5. Prepare product:
    a. Remove vial from refrigerator and inspect the vial for particulate matter and discoloration. Discard if cloudy or if it contains particulate matter.
    b. Withdraw and discard 2 mL of normal saline from the 100 mL stock bag. Total volume will be 100 mL after product dilution.
    c. Withdraw 2 mL of solution from the anifrolumab-fnia vial and add it to the normal saline stock bag.
    d. Mix the solution by gentle inversion. **DO NOT SHAKE**.
    e. Diluted product must be infused within 1 hour of preparation. Protect from direct sunlight if not used immediately.

6. Infusion Rates
    a. Infusion should be administered continuously over a period of 30 minutes through a dedicated IV line.
    b. Do not infuse other agents concomitantly with anifrolumab-fnia in the same IV line.
    c. If a minor reaction is observed, the infusion may be slowed or temporarily interrupted.
    d. Follow Protocol for Management of Adult Infusion Reactions (Appendix A).
    e. Patients with history of severe infusion reactions should only be considered for home infusion after a thorough discussion of safety for the patient and risk vs. benefit with

physician. If home infusion continues, a slower infusion rate will be utilized.

7. Upon completion of the infusion, flush the infusion set with 25 mL of 0.9% Sodium Chloride (provided as 50mL bag) to ensure that all the anifrolumab-fnia solution has been administered. Infuse over approximately 7.5 minutes (200mL/hr) and discard remainder.

VI. CLINICAL MONITORING

A. Monitor for signs and symptoms of infection- therapy may need interrupted during an active infection.

B. There is a pregnancy exposure registry that monitors pregnancy outcomes in women exposed to anifrolumab-fnia during pregnancy. Healthcare professionals are encouraged to contact AstraZeneca and register patients by calling 1-877-693-9268.

C. Monitor disease severity including:

1. Malar or discoid rash
2. Photosensitivity
3. Oral ulcers
4. Serositis
5. Arthritis
6. Renal disorders
7. Neurological disorders- seizures
8. Hemolytic anemia
9. Anti-nuclear antibodies
10. Laboratory assessment- CBC, ESR, BUN/Creatinine, and LFTs
11. Disease specific assessment questions to monitor response to treatment and progression

REFERENCES:

Saphnelo [package insert]. Wilmington, DE. AstraZeneca. 2021.

Fanouriakis A, Kostopoulou M, Alunno A, *et al* 2019 update of the EULAR recommendations for the management of systemic lupus erythematosus. *Annals of the Rheumatic Diseases 2019;* 78:736-745.

USP General Chapter <797>: Pharmaceutical Compounding- Sterile Preparations. Rockville, MD: United States Pharmacopeia Convention; 2008.

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

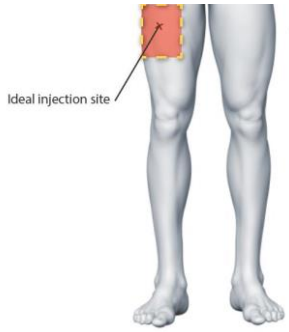
1. **Remove 1 of each item**
    a. 1 -syringe
    b. 1 – brown labeled filter needle (BD Filter Needle)- **for ampul use only**
    c. 1 – black labeled safety needle (Magellan Hypodermic Safety Needle 22G x 1”)
    d. 1 ampul of epinephrine

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 ampul.**
3. Holding the ampul upright, **swirl and flick the ampul 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 ampul and with your other hand grasp the bottom chamber of the ampul. **Quickly snap the top of the ampul off, directing the snap way from you.**

5. **Place the tip of the brown filter needle inside the ampul**. Tilting the ampul, **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 ampul 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 ampul.
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.