CAREPATHrx™
Specialty Pharmacy & Infusion Solutions

CLINICAL GUIDELINES FOR INTRAVENOUS IBALIZUMAB-UIYK (TROGARZO®)

Section: Nursing
Compliance: ACHC Infusion Pharmacy
ACHC Standards:
Policy ID: NUR228
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Revised:
Approved by: Kathleen Patrick, President 12/1/21

I. POLICY

Ibalizumab-uiyk (Trogarzo®) is a CD4-directed post-attachment HIV-1 inhibitor that is indicated in combination with other antiretroviral(s) for the treatment of human immunodeficiency virus type 1 (HIV-1) infection in heavily treatment-experienced adults with multidrug resistant HIV-1 infection failing their current antiretroviral regimen. Ibalizumab blocks HIV-1 from infecting the $CD4^+$ T cells by binding to domain 2 of CD4 and interfering with post-attachment steps required for the entry of HIV-1 virus particles into host cells and preventing the viral transmission that occurs via cell-cell fusion. In a phase 3 clinical trial, 43% of patients treated with Trogarzo® achieved an undetectable viral load after 25 weeks of treatment.

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 up admission criteria.

B. The decision to administer a first dose in the home by a Chartwell 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 infusion
   4. Other relevant social and/or medical history

C. Chartwell treatment protocol for anaphylaxis will be instituted unless more comprehensive patient-specific orders are provided by physician. See policy NUR012

II. PHARMACOLOGY OVERVIEW

A. Indication
   1. Treatment of human immunodeficiency virus type 1 (HIV-1) infection in heavily treatment-experienced adults with multidrug resistant HIV-1 infection failing their current antiretroviral regimen.

B. Dosage

1. Loading dose
   IV: 2,000 mg once
2. Maintenance dose
   IV: 800 mg every 2 weeks
   Must be infused within 3 days of the date the patient is due for infusion. If the patient does not receive their maintenance dose in this timeframe, they must receive a loading dose of 2,000 mg before restarting on the maintenance dose 2 weeks later.

C. Contraindications: Prior hypersensitivity reaction to ibalizumab-uiyk or any component of the product

D. Precautions
   1. Immune Reconstitution Inflammatory Syndrome (IRIS) has been reported in some cases when using ibalizumab-uiyk in combination with other antiretroviral agents
   2. Hypersensitivity reactions including anaphylaxis and infusion-related reaction have been reported; discontinue if symptoms occur and initiate appropriate treatment
   3. Pregnancy/Lactation

      a. Treatment may result in reversible immunosuppression in infants exposed during pregnancy: expert consultation is recommended as monitoring may be necessary. Safety of live or live-attenuated vaccines in exposed infants is unknown
      b. There is a pregnancy exposure registry that monitors pregnancy outcomes in women exposed to ibalizumab-uiyk during pregnancy. Healthcare providers are encouraged to register patients by call the Antiretroviral Pregnancy Registry (APR) at 1-800-258-4263.
      c. No data are available regarding the presence of ibalizumab-uiyk in human milk, the effects on the breastfed child, or the effects on milk production. There is a potential for HIV-1 transmission through breast milk, so mothers should be instructed not to breastfeed if they are receiving ibalizumab-uiyk.

   4. Pediatric Use: The safety and effectiveness of ibalizumab-uiyk in pediatric patients have not been established

   5. Geriatric Use: No studies have been conducted with ibalizumab-uiyk in geriatric patients

E. Pharmacokinetics
   1. Vd: 4.8 L
   2. Elimination Half-Life: 2.7-64 hours (dependent on dose)

F. Adverse Reactions
   1. GI: Diarrhea (8%)
   2. Neuro: Dizziness (8%)
   3. Rash (5%)
   4. Immunologic: Hypersensitivity reaction, Immune reconstitution syndrome

G. Drug Interactions: None

III. ADMINSTRATIVE GUIDELINES

A. Administrative Guidelines
   1. Site: IV infusion should begin within 4 hours of dilution and should be infused into the

cephalic vein of the patient's left or right arm. Ibalizumab-uiyk should be administered by a trained medical professional.

B. Dosage
    1. Loading Dose:
       IV: 2,000 mg (10 vials)
    2. Maintenance Dose:
       IV: 800 mg (4 vials)

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

D. Dose Adjustment
    1. No dosage adjustment is recommended in patients 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.

IV. NURSING PROCEDURE

A. Supplies
    1. Alcohol swabs
    2. Gloves
    3. Vials of ibalizumab (150mg/mL)
    4. Bag of sodium chloride 0.9% for dilution (250 mL)
    5. Bag of sodium chloride 0.9% for flush (50 mL)
    6. IV Start Kit
    7. Catheter Insytes 22-gauge x1" and 24-gauge x ¾"
    8. Huber needle 22-gauge x ¾ to 1" safe step
    9. Tape
    10. Extension set 8"
    11. Microclave
    12. IV administration set
    13. Syringe and needles
    14. Sharps container

B. How Supplied
    1. IV: ibalizumab-uiyk for injection is provided as a 200 mg/1.33 mL solution which is a concentration of 150 mg/mL. Refer to specific product packing and prescribing information for NDC, storage, stability, and excursion information.

C. Storage and Handling
    1. Store vials in original carton under refrigeration at 2-8°C (36-46°F). Do not freeze and protect from light.
    2. Once diluted, ibalizumab-uiyk should be administered immediately. If not administered immediately, store the diluted ibalizumab-uiyk at room temperature (20°C to 25°C, 68°F to 77°F) for up to 4 hours or refrigerated (2°C to 8°C, 36°F to 46°F) for up to 24 hours. If refrigerated, allow the diluted solution to stand at room temperature (20°C to 25°C, 68°F to\

77°F) for at least 30 minutes but no more than 4 hours prior to administration.
3. Refer to specific product packing and prescribing information for storage, stability, and excursion information.

D. Compatibility
1. Stable in NS
2. Do not dilute with D5W, 1/2NS, LR
3. Do not infuse with other agents

E. Procedures
1. Initial Dose
a. Explain the reason for visit and use of ibalizumab-uiyk
b. Don gloves
c. Establish venous access prior to preparation of drug
d. Counsel patient on warnings, precautions, and potential side effects including but not limited to infusion site reactions, diarrhea, dizziness, rash
e. Remove the flip-off cap from the single-dose vial and wipe with an alcohol swab
f. Insert sterile syringe needle into the vial through the center of the stopper and withdraw 1.33 mL from each vial (10 vials total) (NOTE: a small residual amount may remain in the vial, discard the unused portion) and transfer into a 250 mL IV bag of normal saline.
g. Once diluted, the solution should be administered immediately.
h. If not administered immediately, store the diluted ibalizumab-uiyk at room temperature (20°C to 25°C, 68°F to 77°F) for up to 4 hours, or refrigerated (2°C to 8°C, 36°F to 46°F) for up to 24 hours. If refrigerated, allow the diluted solution to stand at room temperature (20°C to 25°C, 68°F to 77°F) for at least 30 minutes but no more than 4 hours prior to administration.
i. After infusion is complete, flush with 30 mL of normal saline
j. Patients should be observed for 1 hour after completion of ibalizumab-uiyk administration for the first infusion.
k. Discard partially used vials or empty vials of ibalizumab-uiyk and any unused portion of the dilute ibalizumab-uiyk solution.

2. Maintenance Dose
a. Explain the reason for visit and use of ibalizumab-uiyk
b. Don gloves
c. Establish venous access prior to preparation of drug
d. Counsel patient on warnings, precautions, and potential side effects including but not limited to infusion site reactions, diarrhea, dizziness, rash
e. Remove the flip-off cap from the single-dose vial and wipe with an alcohol swab
f. Insert sterile syringe needle into the vial through the center of the stopper and withdraw 1.33 mL from each vial (4 vials total) (NOTE: a small residual amount may remain in the vial, discard the unused portion) and transfer into a 250 mL IV bag of normal saline.
g. Once diluted, the solution should be administered immediately.
h. If not administered immediately, store the diluted ibalizumab-uiyk at room temperature (20°C to 25°C, 68°F to 77°F) for up to 4 hours, or refrigerated (2°C to 8°C, 36°F to 46°F) for up to 24 hours. If refrigerated, allow the diluted solution to stand at room temperature (20°C to 25°C, 68°F to 77°F) for at least 30 minutes but no more than 4 hours prior to administration.
i. After infusion is complete, flush with 30 mL of normal saline

j. The patient should be observed for 15 minutes after the infusion is complete. If the patient had a previous reaction to the initial dose; they may need to be observed for an hour.
k. Discard partially used vials or empty vials of ibalizumab-uiyk and any unused portion of the dilute ibalizumab-uiyk solution.

F. Infusion Rates

1. Initial Dose
    a. The initial infusion should be administered continuously for no less than 30 minutes.
    b. Do not infuse other agents concomitantly with ibalizumab-uiyk in the same IV line
    c. Follow Chartwell Protocol for Management of Adult Infusion Reactions
    d. Patients with a 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.

2. Maintenance Dose
    a. Maintenance doses should be infused for no less than 15 minutes if no infusion-associated adverse reaction occurred with the first dose.
    b. The maintenance dose must be infused within 3 days of the date the patient is due for infusion. If the patient does not receive their maintenance dose in this timeframe, they must receive a loading dose of 2,000 mg before restarting on the maintenance dose 2 weeks later.
    c. Do not infuse other agents concomitantly with ibalizumab-uiyk in the same IV line
    d. Follow Chartwell Protocol for Management of Adult Infusion Reactions
    e. Patients with a 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.

V. CLINICAL MONITORING

A. Monitor for signs and symptoms of infusion-related reaction after administration such as flushing, sweating, itching, rash, and anaphylaxis.

B. Monitor for signs and symptoms of Immune reconstitution inflammatory syndrome (IRIS) as patients that are taking ibalizumab-uiyk with other antiretrovirals may develop an inflammatory response to indolent or residual opportunistic infections. A patient may have IRIS if a preexisting infection suddenly worsens or if they develop a new infection or disease after beginning therapy with ibalizumab-uiyk. Contact patient's provider if this occurs as it may necessitate further evaluation and treatment.

C. There is a pregnancy exposure registry that monitors pregnancy outcomes in women exposed to ibalizumab-uiyk during pregnancy. Healthcare providers are encouraged to register patients by calling the Antiretroviral Pregnancy Registry (APR) at 1-800-258-4263.

1. Monitor disease severity including:
    a. Viral load
        (1) Before initiation
        (2) 2-4 weeks after treatment initiation
        (3) 4–8-week intervals until levels are undetectable

b. CD4 Count
    (1) Every 3 months until CD4 count increases above 200

REFERENCES:

Trogarzo (ibalizumab-uiyk) [package insert]. Irvine, California: TaiMed Biologics USA Corp; 2018.

Emu B, Fessel J, Schrader S, et al. Phase 3 Study of Ibalizumab for Multidrug-Resistant HIV-1. N Engl J Med 2018; 379:645-654.

Centers for Disease Control and Prevention. HIV Treatment and Care. www.cdc.gov/hiv/clinicians/treatment