Methoxy Polyethylene Glycol-Epoetin Beta for Dialysis (Mircera®)

NDC CODE(S) 59353-0400-XX - MIRCERA 30MCG/0.3ML Solution Prefilled Syringe (VIFOR)
59353-0401-XX - MIRCERA 50MCG/0.3ML Solution Prefilled Syringe (VIFOR)
59353-0402-XX - MIRCERA 75MCG/0.3ML Solution Prefilled Syringe (VIFOR)
59353-0403-XX - MIRCERA 100MCG/0.3ML Solution Prefilled Syringe (VIFOR)
59353-0404-XX - MIRCERA 150MCG/0.3ML Solution Prefilled Syringe (VIFOR)
59353-0405-XX - MIRCERA 200MCG/0.3ML Solution Prefilled Syringe (VIFOR)

DESCRIPTION

Endogenous erythropoietin is a primary growth factor for the development of red blood cells. It is produced in the kidney and released into the bloodstream in response to hypoxia and increases production in response to greater need for oxygenation. Individuals with chronic kidney disease have impaired production of erythropoietin. This erythropoietin deficiency is the primary cause of their anemia.

Methoxy polyethylene glycol-epoetin beta is an erythropoietin stimulating agent differing from endogenous erythropoietin by the formation of a chemical bond with methoxy polyethylene glycol (PEG). This provides increased half-life in circulation as compared to erythropoietin as well as greater activity in the body.

This policy addresses the use of methoxy polyethylene glycol-epoetin beta in dialysis patients.

POLICY

- Methoxy polyethylene glycol-epoetin beta for the treatment of anemia associated with chronic kidney disease (CKD) in dialysis patients is considered ***medically necessary*** if the medical appropriateness criteria are met. **(See Medical Appropriateness below.)**

- Methoxy polyethylene glycol-epoetin beta for the treatment of other conditions/diseases is considered, including, but not limited to, the treatment of anemia due to cancer chemotherapy or as a substitute for red blood cell transfusions in individuals who require immediate correction of anemia, ***investigational.***

MEDICAL APPROPRIATENESS

INITIAL APPROVAL CRITERIA

Universal Criteria

- Lab values are obtained within 30 days of the date of administration (unless otherwise indicated); **AND**
- Patient has adequate iron stores as demonstrated by serum ferritin ≥ 100 ng/mL (mcg/L) and transferrin saturation (TSAT) ≥ 20% (measured within the previous 3 months for renewal)*; **AND**
- Other causes of anemia (e.g. hemolysis, bleeding, vitamin deficiency, etc.) have been ruled out; **AND**
- Patient does not have uncontrolled hypertension; **AND**

Anemia Secondary to Chronic Kidney Disease

- Initiation of therapy Hemoglobin (Hb) < 10 g/dL and/or Hematocrit (Hct) < 30%; **AND**
  - Adults (18 years or older) receiving dialysis; **OR**
  - Pediatric patients (5 years or older); **AND**
    - Patient is receiving hemodialysis; **AND**

- Patient is converting from another erythropoiesis stimulating agent (ESA) after their hemoglobin was stabilized

RENEWAL CRITERIA

- Patient continues to meet the universal and other indication-specific relevant criteria identified the Initial Approval Criteria; **AND**
- Previous dose was administered within the past 60 days; **AND**
- Anemia response compared to pretreatment baseline; **AND**
- Absence of unacceptable toxicity from the drug. Examples of unacceptable toxicity include the following: pure red cell aplasia, severe allergic reactions (anaphylaxis, angioedema, bronchospasm, Stevens-Johnson syndrome/toxic epidermal necrolysis, etc.), severe cardiovascular events (stroke, myocardial infarction, congestive heart failure, thromboembolism, uncontrolled hypertension), seizures, etc.; **AND**

Anemia Secondary to Chronic Kidney Disease

- Pediatric patients: Hemoglobin (Hb) < 12 g/dL and/or Hematocrit (Hct) < 36%
- Adults: Hemoglobin (Hb) <11 g/dL and/or Hematocrit (Hct) <33%

** Intravenous iron supplementation may be taken into account when evaluating iron status*
• Functional iron deficiency (i.e., adequate iron stores with an insufficient supply of available iron) may occur in patients with chronic diseases, cancer, and/or in those currently receiving ESAs. • Iron is not generally recommended in anemic patients with a Ferritin >500 ng/mL • Anemic patients with a Ferritin ≤ 500 ng/mL AND TSAT <50% may derive benefit from IV iron therapy in conjunction with ESA

DOSAGE/ADMINISTRATION

INDICATION	DOSE
Adults with CKD on Dialysis	Starting dose: 0.6 mcg/kg IV or SC once every 2 weeks Maintenance dose: Once monthly dosing (at twice the every-two-week dose) may occur once Hb has been stabilized. Most commonly the dose ranges from 120 to 360 mcg every 4 weeks.

Pediatrics with CKD on Hemodialysis	Administer intravenously once every 4 weeks in pediatric patients whose Hb level has been stabilized by treatment with another ESA.
	• Conversion from Epoetin alfa
	  ○ 4 x previous weekly epoetin alfa dose (Units)/125= dose given every 4 weeks, e.g., 4 x 1500 units of epoetin alfa per week/125 = 48 mcg of Mircera every 4 weeks
	• Conversion from Darbepoetin alfa
	  ○ 4 x previous weekly darbepoetin alfa dose (mcg)/0.55 = dose given every 4
	  ○ Weeks, e.g., 4 x 20 mcg of darbepoetin alfa per week/0.55 = 145.5 mcg of Mircera every 4 weeks

▫ Dose increases of 25% can be considered if after 4 weeks of initial therapy the hemoglobin has increased less than 1 g/dL and the current hemoglobin level is less than the indication specific level noted above ▫ Dose decreases of 25% or more can be considered if the hemoglobin rises rapidly by more than 1 g/dL in any 2-week period	

- Avoid frequent dose adjustments. Do not increase the dose more frequently than once every 4 weeks; decreases can occur more frequently.
- Dose and frequency requested are the minimum necessary for the patient to avoid RBC transfusions. If patients fail to respond over a 12-week dose escalation period, further dose increases are unlikely to improve response and discontinuation of therapy should be considered.

LENGTH OF AUTHORIZATION

Coverage will be provided for 12 months and may be renewed.

DOSING LIMITS

Max Units (per dose and over time) [HCPCS Unit]:

- 360 billable units every 28 days

APPLICABLE TENNESSEE STATE MANDATE REQUIREMENTS

BlueCross BlueShield of Tennessee's Medical Policy complies with Tennessee Code Annotated Section 56-7-2352 regarding coverage of off-label indications of Food and Drug Administration (FDA) approved drugs when the off-label use is recognized in one of the statutorily recognized standard reference compendia or in the published peer-reviewed medical literature.

IMPORTANT REMINDER

We develop Medical Policies to provide guidance to Members and Providers. This Medical Policy relates only to the services or supplies described in it. The existence of a Medical Policy is not an authorization, certification, explanation of benefits or a contract for the service (or supply) that is referenced in the Medical Policy. For a determination of the benefits that a Member is entitled to receive under his or her health plan, the Member's health plan must be reviewed. If there is a conflict between the Medical Policy and a health plan, the express terms of the health plan will govern.

ADDITIONAL INFORMATION

For appropriate chemotherapy regimens, dosage information, contraindications, precautions, warnings, and monitoring information, please refer to one of the standard reference compendia (e.g., the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) published by the National Comprehensive Cancer Network®, Drugdex Evaluations of Micromedex Solutions at Truven Health, or The American Hospital Formulary Service Drug Information).

SOURCES

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3. Sulowicz W, Locatelli F, Ryckelynck JP, Balla J, Csiky B, Harris K, Ehrhard P, Beyer U; PROTOS Study Investigators .: Once-monthly subcutaneous C.E.R.A. maintains stable hemoglobin control in patients with chronic kidney disease on dialysis and converted directly from epoetin one to three times weekly. Clin J Am Soc Nephrol 2: 637–646, 2007.

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5. Kidney Disease: Improving Global Outcomes (KDIGO) Anemia Work Group. KDIGO clinical practice guideline for anemia in chronic kidney disease. Kidney Int Suppl. 2012;2(suppl):279-335. https://kdigo.org/guidelines/anemia-in-ckd/. Published August 2012.
6. Mikhail, A., Brown, C., Williams, J.A. et al. Renal association clinical practice guideline on Anaemia of Chronic Kidney Disease. BMC Nephrol 18, 345 (2017).Upd 2020. https://doi.org/10.1186/s12882-017-0688-1
7. Lexi-Comp Online. (2021, February). AHFS DI. Methoxy polyethylene glycol-epoetin beta. Retrieved May 3, 2021 from Lexi-Comp Online with AHFS.
8. MICROMEDEX Healthcare Series. Drugdex Evaluations. (2019, December). *Methoxy polyethylene glycol-epoetin beta*. Retrieved May 3, 2021 from MICROMEDEX Healthcare Series.

EFFECTIVE DATE 8/31/2021

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