# Clinical Policy: Ferumoxytol (Feraheme)

Reference Number: PA.CP.PHAR.165
Effective Date: 01/18
Last Review Date: 01/19

Coding Implications
Revision Log

**Description**
Ferumoxytol (Feraheme®) injection is an iron replacement product.

**FDA Approved Indication(s)**
Feraheme is indicated for the treatment of iron deficiency anemia (IDA) in adult patients

- who have intolerance to oral iron or have had unsatisfactory response to oral iron;
- who have chronic kidney disease (CKD).

**Policy/Criteria**
It is the policy of Pennsylvania Health and Wellness that Feraheme is **medically necessary** for members meeting the following criteria:

**I. Initial Approval Criteria**

**A. Iron Deficiency Anemia associated with Chronic Kidney Disease** (must meet all):

1. Diagnosis of iron deficiency anemia (IDA) and chronic kidney disease (CKD);
2. IDA is confirmed by either of the following:
   a. Transferrin saturation (TSAT) ≤ 30%;
   b. Serum ferritin ≤ 500 ng/mL;
3. If CKD does not require hemodialysis or peritoneal dialysis, oral iron therapy is not optimal due to any of the following:
   a. TSAT < 12%;
   b. Hgb < 7 g/dL;
   c. Symptomatic anemia;
   d. Severe or ongoing blood loss;
   e. Oral iron intolerance;
   f. Unable to achieve therapeutic targets with oral iron;
   g. Co-existing condition that may be refractory to oral iron therapy.
4. Dose does not exceed 510 mg elemental iron per infusion/injection.

**Approval duration: 3 months**

**B. Iron Deficiency Anemia not associated with Chronic Kidney Disease** (must meet all):

1. Diagnosis of IDA confirmed by any of the following:
   a. Serum ferritin < 15 ng/mL or < 30 ng/mL if pregnant;
   b. Serum ferritin ≤ 41 ng/mL and Hgb < 12 g/dL (women)/< 13 g/dL (men);
   c. TSAT < 20%;
   d. Absence of stainable iron in bone marrow;
   e. Increased soluble transferring receptor (sTfR) or sTfR-ferritin index;
   f. Increased erythrocyte protoporphyrin level;
2. Oral iron therapy is not optimal due to any of the following:
   a. TSAT < 12%;
   b. Hgb < 7 g/dL;

c. Symptomatic anemia;
d. Severe or ongoing blood loss;
e. Oral iron intolerance;
f. Unable to achieve therapeutic targets with oral iron;
g. Co-existing condition that may be refractory to oral iron therapy.

3. At the time of the request, member does not have CKD.
4. Dose does not exceed 510 mg elemental iron per infusion/injection.

**Approval duration 3 months**

**C. Other diagnoses/indications:** Refer to PA.CP.PMN.53

**II. Continued Approval Criteria**

**A. Iron Deficiency Anemia associated with Chronic Kidney Disease** (must meet all):

1. Currently receiving the medication via Pennsylvania Health and Wellness benefit or member has previously met all initial approval criteria or the Continuation of Care policy (PA.LTSS.PHAR.01) applies;
2. Documentation of one of the following laboratory results measured since the last IV iron administration:
   a. TSAT ≤ 30%;
   b. Serum ferritin ≤ 500 ng/mL.
3. 3. If request is for a dose increase, new dose does not exceed 510 mg elemental iron per infusion/injection.

**Approval duration 3 months**

**B. Iron Deficiency Anemia not associated with Chronic Kidney Disease** (must meet all):

1. Currently receiving the medication via Pennsylvania Health and Wellness benefit or member has previously met all initial approval criteria or the Continuation of Care policy (PA.LTSS.PHAR.01) applies ;
2. Documentation of one of the following laboratory results since last IV iron administration:
   a. Serum ferritin < 15 ng/mL or < 30 ng/mL if pregnant;
   b. Serum ferritin ≤ 41 ng/mL and Hb < 12 g/dL (women)/< 13 g/dL (men);
   c. TSAT < 20%;
   d. Absence of stainable iron in bone marrow;
   e. Increased sTfR or sTfR-ferritin index;
   f. Increased erythrocyte protoporphyrin level;
3. At the time of the request, member does not have CKD.
4. If request is for a dose increase, new dose does not exceed 510 mg elemental iron per infusion/injection.

**Approval duration 3 months**

**C. Other diagnoses/indications** (must meet 1 or 2)**:**

1. Currently receiving medication via Pennsylvania Health and Wellness benefit and documentation supports positive response to therapy or the Continuation of Care policy (PA.LTSS.PHAR.01) applies; or
2. Refer to PA.CP.PMN.53

**Background**

*Description/Mechanism of Action:*

Feraheme (ferumoxytol) is an iron replacement product consisting of a superparamagnetic iron oxide that is coated with a carbohydrate shell which helps to isolate the bioactive iron from plasma components until the iron-carbohydrate complex enters the reticuloendothelial system macrophages of the liver, spleen and bone marrow. The iron is released from the iron-carbohydrate complex within vesicles in the macrophages. Iron then either enters the intracellular storage iron pool (e.g., ferritin) or is transferred to plasma transferrin for transport to erythroid precursor cells for incorporation into hemoglobin.

*Appendix A: Abbreviation/Acronym Key*

CKD: chronic kidney disease
ESA: erythropoiesis stimulating agent
Hb: hemoglobin
IDA: iron deficiency anemia
TSAT: transferrin saturation
sTfR: soluble transferring receptor

*Appendix B: Therapeutic Alternatives*

*This table provides a listing of preferred alternative therapy recommended in the approval criteria. The drugs listed here may not be a formulary agent and may require prior authorization.*

| Drug Name | Dosing Regimen | Dose Limit/ Maximum Dose |
|---|---|---|
| **Examples of OTC Oral Iron Formulations*** | | |
| Ferrous fumarate (Ferretts, Ferrimin 150, Hemocyte) | Varies | |
| Ferrous gluconate (Ferate) | | |
| Ferrous sulfate (BProtected Pedia Iron, Fer-In-Sol, FeroSul, FerrouSul, Iron Supplement Childrens, Slow Fe, Slow Iron) | | |
| Polysaccharide-iron complex (EZFE 200, Ferrex 150, Ferrix x-150, Myferon 150, NovaFerrum 125, NovaFerrum 50, NovaFerrum Pediatric Drops, Nu-Iron, Poly-Iron 150) | | |

*Therapeutic alternatives are listed as Brand name® (generic) when the drug is available by brand name only and generic (Brand name®) when the drug is available by both brand and generic.*
**Oral formulations include elixirs, liquids, solutions, syrups, capsules, and tablets - including delayed/extended-release tablets.*

*Appendix C: Contraindications/Boxed Warnings*

- Contraindication(s): Known hypersensitivity to Feraheme or any of its components. History of allergic reaction to any intravenous iron product.
- Boxed warning(s): Serious hypersensitivity/anaphylaxis reactions.

**III. Dosage and Administration**

| Indication | Dosing Regimen | Maximum Dose |
|---|---|---|
| IDA with or without CKD (adults) | 510 mg IV infusion followed by a second 510 mg IV infusion 3 to 8 days later.<br>*For patients receiving hemodialysis, administer after at least one hour of hemodialysis. | 510 mg per dose<br>-Treatment course: 1020 mg<br>-Treatment may be repeated |

**IV. Product Availability**

Intravenous solution: 510 mg/17 mL (17 mL)

**References**

1. Feraheme prescribing information. AMAG Waltham, MA: Pharmaceuticals, Inc.; March 2015. Available from http://products.sanofi.us/ferrlecit/ferrlecit.html. Accessed November 06, 2018.
2. KDIGO 2012 clinical practice guideline for evaluation and management of chronic kidney disease. *Kidney International Supplements.* January 2013; 3(1): 1-136.
3. KDIGO 2012 clinical practice guideline for anemia in chronic kidney disease. *Kidney International Supplements.* August 2012; 2(4): 279-331.
4. Camaschella C. Iron-Deficiency Anemia. *N Engl J Med.* 2015; 372: 1832-43. DOI: 10.1056/NEJMra1401038.
5. Short MW, Domagalski JE. Iron Deficiency Anemia: Evaluation and Management. *Am Fam Physician.* 2013; 87(2): 98-104. http://www.aafp.org/afp/2013/0115/p98.pdf
6. Oral iron monographs. In: UpToDate (Lexicomp), Waltham, MA: Walters Kluwer Health; 2018. Available at www.uptodate.com. Accessed November 06, 2018.

**Coding Implications**

Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

| HCPCS Codes | Description |
|---|---|
| Q0138 | Injection, ferumoxytol, for treatment of iron deficiency anemia, 1 mg (non-ESRD use) |
| Q0139 | Injection, ferumoxytol, for treatment of iron deficiency anemia, 1 mg (for ESRD on dialysis) |

| Reviews, Revisions, and Approvals | Date | Approval Date |
|---|---|---|
| Dosing added. References reviewed and updated. | 02/18 | |
| 1Q 2019 annual review; new indication for members without CKD changed from off-label to FDA-approved coverage; under IDA initial and continuation criteria, a serum ferritin of less than or equal to 500 is edited by deleting the additional requirement of receiving an ESA based on the KDIGO 2012 guidelines which do not include this restriction; under IDA and IDA with CKD continuation criteria, the greater than or equal to 4 | 01/19 | |

| Reviews, Revisions, and Approvals | Date | Approval Date |
|---|---|---|
| week waiting period before retesting after the last IV iron administration is removed per the KDIGO 2012 guidelines which note that only one week need pass before retesting; references reviewed and updated. | | |