

**Clinical Policy: Deferiprone (Ferriprox)**

Reference Number: IL.PHAR.147

Effective Date: 1.1.20

Last Review Date: 11.1.22

Line of Business: Medicaid

[Revision Log](#)

See [Important Reminder](#) at the end of this policy for important regulatory and legal information.

**Description**

Deferiprone (Ferriprox<sup>®</sup>) is an iron chelator.

**FDA Approved Indication(s)**

Ferriprox tablets are indicated for the treatment of transfusional iron overload in adult and pediatric patients 8 years of age and older with thalassemia syndromes, sickle cell disease, or other anemias.

Ferriprox oral solution is indicated for the treatment of transfusional iron overload in adult and pediatric patients 3 years of age and older with thalassemia syndromes, sickle cell disease, or other anemias.

Limitation(s) of use: Safety and effectiveness have not been established for the treatment of transfusional iron overload in patients with myelodysplastic syndrome or in patients with Diamond Blackfan anemia.

**Policy/Criteria**

*Provider must submit documentation (such as office chart notes, lab results or other clinical information) supporting that member has met all approval criteria.*

It is the policy of health plans affiliated with Centene Corporation<sup>®</sup> that Ferriprox is **medically necessary** when the following criteria are met:

**I. Initial Approval Criteria**

**A. Transfusional Iron Overload due to Thalassemia Syndromes (must meet all):**

1. Diagnosis of transfusional iron overload due to one of the following (a, b, or c):
  - a. Thalassemia syndromes;
  - b. Sickle cell disease;
  - c. Other anemia;
2. Member meets one of the following (a or b):
  - a. For Ferriprox tablets: age  $\geq$  8 years;
  - b. For Ferriprox oral solution: age  $\geq$  3 years;
4. Transfusion history of  $\geq$  100 mL/kg of packed red blood cells (e.g.,  $\geq$  20 units of packed red blood cells for a 40 kg person) and a serum ferritin level  $>$  1,000 mcg/L; Failure of deferoxamine and deferasirox (Exjade<sup>®</sup>, Jadenu<sup>®</sup>), unless clinically significant adverse effects are experienced or all are contraindicated;

*\*Prior authorization may be required for deferoxamine and deferasirox*

5. Dose does not exceed 99 mg/kg per day.

**Approval duration: 6 months**

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

1. If this drug has recently (within the last 6 months) undergone a label change (e.g., newly approved indication, age expansion, new dosing regimen) that is not yet reflected in this policy, refer to one of the following policies (a or b):
  - a. For drugs on the formulary PDL (Medicaid), the no coverage criteria policy for the relevant line of business: CP.PMN.255 for Medicaid; or
  - b. For drugs NOT on the formulary PDL (Medicaid), the non-formulary policy for the relevant line of business: CP.PMN.16 for Medicaid; or
2. If the requested use (e.g., diagnosis, age, dosing regimen) is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized) AND criterion 1 above does not apply, refer to the off-label use policy for the relevant line of business: CP.PMN.53 for Medicaid.

**II. Continued Therapy**

**A. Transfusional Iron Overload due to Thalassemia Syndromes** (must meet all):

1. Member meets one of the following (a or b):
  - a. Currently receiving medication via Centene benefit or member has previously met initial approval criteria;
  - b. Member is currently receiving medication and is enrolled in a state and product with continuity of care regulations (*refer to state specific addendums for CC.PHARM.03A and CC.PHARM.03B*);
2. Current documentation (within the past 30 days) shows a serum ferritin level  $\geq 500$  mcg/L;
3. If request is for a dose increase, new dose does not exceed 99 mg/kg per day.

**Approval duration: 12 months**

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

1. If this drug has recently (within the last 6 months) undergone a label change (e.g., newly approved indication, age expansion, new dosing regimen) that is not yet reflected in this policy, refer to one of the following policies (a or b):
  - a. For drugs on the PDL (Medicaid), the no coverage criteria policy for the relevant line of business: CP.PMN.255 for Medicaid; or
  - b. For drugs NOT on the PDL (Medicaid), the non-formulary policy for the relevant line of business: CP.PMN.16 for Medicaid; or
2. If the requested use (e.g., diagnosis, age, dosing regimen) is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized) AND criterion 1 above does not apply, refer to the off-label use policy for the relevant line of business: CP.PMN.53 for Medicaid.

**III. Diagnoses/Indications for which coverage is NOT authorized:**

- A. Non-FDA approved indications, which are not addressed in this policy, unless there is sufficient documentation of efficacy and safety according to the off label use policies – CP.PMN.53 for Medicaid or evidence of coverage documents.
- B. Parkinson’s Disease

**IV. Appendices/General Information**

*Appendix A: Abbreviation/Acronym Key*

DFO-DFP: deferiprone-deferoxamine

FDA: Food and Drug Administration

*Appendix B: Contraindications/Box Warnings*

- Contraindication(s): Hypersensitivity to deferiprone or to any of the excipients in the formulation.
- Boxed warning(s): agranulocytosis and neutropenia

*Appendix C: Combination Therapy*

A multicentre randomized open-label trial was designed to assess the effectiveness of long-term sequential deferiprone-deferoxamine (DFO-DFP) versus DFP alone to treat thalassaemia major. The decrease of serum ferritin levels during the treatment period was statistically significantly higher in sequential DFP-DFO patients compared with DFP-alone patients (P = 0.005). Kaplan-Meier survival analysis for the two chelation treatments did not show any statistically significant differences (long-rank test, P = 0.3145). Evidence exists to support the use of combination therapy with Ferriprox (deferiprone) and Desferal (deferoxamine) in patients with severe iron overload or overt iron-related morbidity.

*Appendix D: Combination Therapy*

A multicentre randomized open-label trial was designed to assess the effectiveness of long-term sequential deferiprone-deferoxamine (DFO-DFP) versus DFP alone to treat thalassaemia major. The decrease of serum ferritin levels during the treatment period was statistically significantly higher in sequential DFP-DFO patients compared with DFP-alone patients (P = 0.005). Kaplan-Meier survival analysis for the two chelation treatments did not show any statistically significant differences (long-rank test, P = 0.3145). Evidence exists to support the use of combination therapy with Ferriprox (deferiprone) and Desferal (deferoxamine) in patients with severe iron overload or overt iron-related morbidity.

*Appendix E: General Information*

- In FAIRPARK-II, deferiprone, an iron chelator, was associated with worse scores in measures of parkinsonism compared to placebo over a 36-week period in participants with newly diagnosed Parkinson’s disease who had never received levodopa.

**V. Dosage and Administration**

Indication	Dosing Regimen	Maximum Dose
Transfusional iron overload	75 mg/kg PO in 2 or 3 divided doses for a total daily dose of 75 to 99 mg/kg/day in 2 or 3 divided doses	99 mg/kg/day

**VI. Product Availability**

- Oral solution: 100 mg/mL
- Tablets: 500 mg with functional scoring, 1,000 mg (three times a day) with functional scoring, 1000 mg (twice a day) with functional scoring

**VII. References**

1. Ferriprox Tablets Prescribing Information. Rockville, MD: ApoPharma USA, Inc.; April 2021. Available at [www.ferriprox.com](http://www.ferriprox.com). Accessed May 13, 2021.
2. Ferriprox Oral Solution Prescribing Information. Rockville, MD: ApoPharma USA, Inc.; April 2021. Available at [http://www.ferriprox.com/us/pdf/ferriprox\\_full\\_pi.pdf](http://www.ferriprox.com/us/pdf/ferriprox_full_pi.pdf). Accessed May 13, 2021.
3. Desferal Prescribing Information. East Hanover, NJ: Novartis Pharmaceuticals Corporation; October 2020. Available at <https://dailymed.nlm.nih.gov/dailymed/>. Accessed May 13, 2021.
4. Exjade Prescribing Information. East Hanover, NJ: Novartis Pharmaceuticals Corporation; July 2020. Available at <http://www.us.exjade.com/>. Accessed May 13, 2021.
5. Jadenu Prescribing Information. East Hanover, NJ: Novartis Pharmaceuticals Corporation; July 2020. Available at <https://www.jadenu.com/>. Accessed May 13, 2021.
6. Musallam KM, Angastiniotis M, Eleftheriou A, Porter JB. Cross-talk between available guidelines for the management of patients with beta-thalassemia major. *Acta Haematol.* 2013; 130: 64-73. DOI: 10.1159/000345734.
7. Hoffbrand AV, Taher A, Cappellini MD. How I treat transfusional iron overload. *Blood.* November 1, 2012; 120(18): 3657-3669.
8. Maggio A, Vitrano A, Capra M, et al. Long-term sequential deferiprone-deferoxamine versus deferiprone alone for thalassaemia major patients: a randomized clinical trial. *Br J Haematol.* 2009;145:245-54.
9. Cappellini MD, Farmakis D, Porter J, et al. 2021 Guidelines for the management of transfusion dependent thalassaemia (TDT) 4<sup>th</sup> edition. Thalassaemia International Federation. 2021. Available at: <https://thalassaemia.org.cy/publications/tif-publications/guidelines-for-the-management-of-transfusion-dependent-thalassaemia-4th-edition-2021/>. Accessed May 4, 2022.
10. Devos D, Labreuche J, Rascol O, et al. Trial of deferiprone in Parkinson’s disease. *N Engl J Med* 2022; 387:2045-2055.

Reviews, Revisions, and Approvals	Date	P&T Approval Date
New policy created, adapted CP.PHAR.147 Deferiprone (Ferriprox) policy.	12.11.19	1.7.20
Q3 2021 Annual Review: Added new indication for sickle cell and other anemias transfusional iron overload with pediatric expansions; references reviewed and updated. Added new tri-scored 1,000 mg tab formulation to Section VI.	8.24.21	
3Q 2022 annual review: no significant changes; references reviewed and updated.	6.22.22	
Template changes applied to other diagnoses/indications and continued therapy section.	11.1.22	

Reviews, Revisions, and Approvals	Date	P&T Approval Date
2Q 2022 Annual review: Added Parkinson disease to section III with rationale in Appendix D; references reviewed and updated.	04.10.23	

**Important Reminder**

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. “Health Plan” means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan’s affiliates, as applicable.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable Health Plan-level administrative policies and procedures.

This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. The Health Plan retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members. This clinical policy is not intended to recommend treatment for members. Members should consult with their treating physician in connection with diagnosis and treatment decisions.

Providers referred to in this clinical policy are independent contractors who exercise independent judgment and over whom the Health Plan has no control or right of control. Providers are not agents or employees of the Health Plan.

This clinical policy is the property of the Health Plan. Unauthorized copying, use, and distribution of this clinical policy or any information contained herein are strictly prohibited. Providers, members and their representatives are bound to the terms and conditions expressed herein through the terms of their contracts. Where no such contract exists, providers, members and their representatives agree to be bound by such terms and conditions by providing services to members and/or submitting claims for payment for such services.

**Note:**

**For Medicaid members**, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

©2015 Centene Corporation. All rights reserved. All materials are exclusively owned by Centene Corporation and are protected by United States copyright law and international copyright law. No part of this publication may be reproduced, copied, modified, distributed, displayed, stored in a retrieval system, transmitted in any form or by any means, or otherwise published without the prior written permission of Centene Corporation. You may not alter or remove any trademark, copyright or other notice contained herein. Centene® and Centene Corporation® are registered trademarks exclusively owned by Centene Corporation.