Clinical Policy Title:	voxelotor
Policy Number:	RxA.624
Drug(s) Applied:	Oxbryta™
Original Policy Date:	5/21/2020
Last Review Date:	03/09/2021
Line of Business Policy Applies to:	All lines of business

Background

Oxbryta™ is a hemoglobin S polymerization inhibitor indicated for the treatment of sickle cell disease in adults and pediatric patients 12 years of age and older.

This indication is approved under accelerated approval based on increase in hemoglobin (Hb). Continued approval for this indication may be contingent upon verification and description of clinical benefit in confirmatory trial(s).

Dosing Information

Drug Name	Indication	Dosing Regimen	Maximum Dose
voxelotor (Oxbryta™)	Sickle cell anemia	1500 mg orally once daily	1500 mg daily

Dosage Forms

- Tablet: 500 mg

Clinical Policy

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

I. Initial Approval Criteria

A. Sickle Cell Disease (must meet all):

1. The member is 12 years of age or older;
2. The member has a diagnosis of sickle cell disease ((homozygous hemoglobin S, sickle hemoglobin C disease, hemoglobin Sβ-thalassemia, or other genotypic variants of sickle cell disease).
3. Member's baseline Hb level between ≥5.5 to ≤ 10.5 g/dL;
4. Member meets one of the following (a, b, or c):
   a. Oxbryta is prescribed concurrently with hydroxyurea therapy;
   b. Member has tried and failed therapy with hydroxyurea at up to maximally indicated doses, unless contraindicated or had experienced clinically significant adverse effects;.
   c. Member is not a candidate for hydroxyurea therapy*;
   * *Members who are pregnant or attempting pregnancy, members with immunosuppressive condition;*
5. The medication has been prescribed by or in consultation with a hematologist;

6. The member has had at least one prior vaso-occlusive crisis (VOC) in the previous 12 months.
7. Member is not using Adakveo concurrently with Oxbryta;
8. Dose does not exceed 1500 mg per day

Approval Duration:
Commercial: 12 months
Medicaid: 12 months

II. Continued Therapy Approval

A. Sickle Cell Disease (must meet all):

1. Member is currently receiving medication that has been authorized by RxAdvance or the member has met initial approval criteria listed in this policy;
2. The member is responding positively to therapy (for example, evidenced by Hb level increase of >1 g/dL from baseline, reduction in VOC or SCD related crises, etc.);
3. Oxbryta is prescribed concurrently with hydroxyurea, unless contraindicated or clinically significant adverse effects are experienced;
4. Member is not using Adakveo concurrently with Oxbryta;
5. If the request is for dose increase, noew dose does not exceed 1500 mg per day.

Approval Duration:
Commercial: 12 months
Medicaid: 12 months

III. Appendices

APPENDIX A: Abbreviation/Acronym Key

VOC: Vaso-occlusive crisis
Hb: Hemoglobin
SCD: Sickle Cell Disease

APPENDIX B: Therapeutic Alternatives

Below are suggested therapeutic alternatives based on clinical guidance. Please check drug formulary for preferred agents and utilization management requirements.

Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
hydroxyurea (Droxia®)	For adults: Initial: 15 mg/kg/day as a single daily dose; based on blood counts every 2 weeks, may increase by 5 mg/kg/day every 12 weeks until the maximum tolerated dose of 35 mg/kg/day;	35 mg/kg/day
hydroxyurea (Siklos®)	For adults: Initial: 20 mg/kg/day as a single daily dose; based on blood counts every 2 weeks, may increase by 5 mg/kg/day every 8 weeks or if a painful crisis occurs until mild myelosuppression (ANC 2,000 to 4,000/mm3) is achieved, or up to a maximum dose of 35 mg/kg/day;	35 mg/kg/day

APPENDIX C: Contraindications/Boxed Warnings

- Contraindication(s):
  - Prior drug hypersensitivity to voxelotor or excipients.

- Boxed Warning(s):
  - None

APPENDIX D: General Information

- Hydroxyurea may cause severe myelosuppression. Monitor blood counts at baseline and throughout treatment. A clinical response to hydroxyurea treatment may take 3 to 6 months; a 6-month trial of the maximum tolerated dose is recommended prior to considering discontinuation due to treatment failure. Effectiveness of hydroxyurea depends upon daily dosing adherence. For patients who have a clinical response, long-term hydroxyurea therapy is indicated;

References

1. Oxbryta™ Prescribing Information. South San Francisco, CA; Global Blood Therapeutics, Inc: November 2019. Available at www.Oxbryta.com. Accessed January 22, 2021.
2. Yawn BP, Buchanan GR, Afenyi-annan AN, et al. Management of sickle cell disease: summary of the 2014 evidence-based report by expert panel members. JAMA. 2014;312(10):1033-48. Accessed January 22, 2021.
3. Drug information (hydroxyurea); In: UpToDate, Post, TW (Ed), UpToDate, Waltham, Ma, 2020. Accessed with subscription at: http://uptodate.com. Accessed January 29, 2021.
4. Vichinsky E, Hoppe CC, et al. A phase 3 randomized trial of voxelotor in sickle cell disease. N Engl J Med. 2019 Aug 8;381(6):509-519.

Review/Revision History	Review/Revised Date	P&T Approval Date
Policy established.	05/07/2020	05/21/2020
Policy was reviewed: 1) Continuation therapy criteria II.A.1. rephrased to "Member is currently receiving medication that has been authorized by RxAdvance or the member has met initial approval criteria listed in this policy 2) "Orally once" was added under dosing regimen in Dosage Form. 3) Continuation therapy criteria II.A was updated: added " Dose does not exceed 1500 mg per day". 4) Appendix A: abbreviation/acronym key added for hb 5) References were updated 6) Added additional initial approval criteria – 3, 4, 7; Updated criteria 2, 6; 7) Added additional continued therapy criteria – 3, 4; Updated criteria #2 8) Added Appendix D, general information	01/22/2020	03/09/2021

9) Added alternative therapies table under Appendix B		