Clinical Policy: Valoctocogene Roxaparvovec-rvox (Roctavian)

Reference Number: PA.CP.PHAR.466
Effective Date: 08/2023
Last Review Date: 01/2026

Description
Valoctocogene roxaparvovec-rvox (Roctavian™) is adeno-associated virus (AAV) vector-based gene therapy.

FDA Approved Indication(s)
Valoctocogene roxaparvovec-rvox is indicated for the treatment of adults with severe hemophilia A (congenital factor VIII [FVIII] deficiency with FVIII activity < 1 IU/dL) without pre-existing antibodies to adeno-associated virus serotype 5 (AAV5) detected by an FDA-approved test.

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.

All requests reviewed under this policy **require medical director review**.

It is the policy of PA Health & Wellness® that Roctavian is **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

A. Congenital Hemophilia A (must meet all)**:**

1. Diagnosis of congenital hemophilia A;
2. Prescribed by or in consultation with a hematologist;
3. Age ≥ 18 years;
4. Member has severe hemophilia A (defined as pre-treatment FVIII level < 1% or activity < 1 IU/dL);
5. Member has been adherent with use of a FVIII or monoclonal antibody hemophilia product* for routine prophylaxis for at least 12 months as assessed and documented by provider;
   **Prior authorization may be required*
6. Member has been treated with FVIII concentrates or cryoprecipitate for a minimum of 150 exposure days (EDs);
7. Member meets both of the following (a and b):
   a. No previous documented history of a detectable FVIII inhibitor;
   b. Member has FVIII inhibitor level assay < 0.6 Bethesda units (BU) on 2 consecutive occasions at least one week apart within the last 12 months;
8. Member has no pre-existing antibodies to AAV5 as measured by an FDA-approved test;
9. Documentation of hepatic ultrasound and elastography or laboratory assessments for liver fibrosis within the last 3 months showing there is not significant hepatic fibrosis (stage 3 or 4) or cirrhosis;

10. Attestation from hepatologist that member is eligible for Roctavian if any of the following (a, b, or c) baseline liver abnormalities, assessed within the last 3 months, are present:
    a. Radiological liver abnormalities;
    b. Liver function tests (LFTs) (i.e., alanine aminotransferase [ALT], aspartate aminotransferase [AST], gamma-glutamyl transferase [GGT], alkaline phosphatase [ALP], total bilirubin) measuring ALT, AST, GGT, ALP and total bilirubin > 1.25 × upper limit of normal (ULN);
    c. International normalized ratio (INR) ≥ 1.4;
11. Provider attestation of member's ability to receive corticosteroids and/or other immunosuppressive therapy that may be required for an extended period and that the risks associated with immunosuppression are acceptable for the individual member;
12. Member has not received prior gene therapy;
13. Provider attestation that alcohol abstinence education has been completed with the member;
14. Provider confirms that member will discontinue any use of hemophilia A prophylactic therapy within 4 weeks after administration of Roctavian;
15. Provider agrees to monitor the member according to the FDA-approved label (i.e., FVIII level tests, ALT monitoring and steroid treatment as appropriate);
16. Provider agrees to submit ALL of the following medical information after Roctavian administration upon plan request (a, b, and c):
    a. FVIII levels measured by the average of two consecutive chromogenic substrate assay or one stage assay measurements separated by one week;
    b. Documentation of all spontaneous bleeds after Roctavian administration (see Appendix D);
    c. Documentation of any resumed continuous hemophilia A prophylaxis and duration of prophylaxis;
17. Dose does not exceed a single IV infusion of 6×10^{13} vector genomes (vg) per kg.

Approval duration: 3 months (*1 dose only*)

B. Other diagnoses/indications

1. Refer to the off-label use policy if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized): PA.CP.PMN.53

II. Continued Therapy

A. Congenital Hemophilia A (must meet all)**:**

1. Continued therapy will not be authorized as Roctavian is indicated to be dosed one time only.

Approval duration: Not applicable

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

1. Currently receiving medication via PA Health & Wellness benefit and documentation supports positive response to therapy or the Continuity of Care policy (PA.PHARM.01) applies.
   Approval duration: Duration of request or 12 months (whichever is less); or

2. Refer to the off-label use policy for the relevant line of business if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized): PA.CP.PMN.53

IV. 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 – PA.CP.PMN.53

V. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

AAV: adeno-associated virus
ALP: alkaline phosphatase
ALT: alanine aminotransferase
AST: aspartate aminotransferase
BU: Bethesda unit
ED: exposure day
FDA: Food and Drug Administration
FVIII: factor VIII
GGT: gamma-glutamyl transferase
INR: international normalized ratio
LFT: liver function test
ULN: upper limit of normal
vg: vector genome
WFH: World Federation of Hemophilia

Appendix B: Therapeutic Alternatives

Drug Name	Usual Dosing Regimen	Dose Limit/ Maximum Dose
FVIII recombinant products for routine prophylaxis		
Advate®	20-40 IU/kg IV every other day (3 to 4 times weekly) or every third day dosing regimen targeted to maintain FVIII trough levels ≥ 1%	40 IU/kg every other day
Adynovate®	40-55 IU/kg IV 2 times per week	70 IU/kg/dose
Afstyla®	20-50 IU/kg IV 2-3 times per week	50 IU/kg/dose
Altuviiio®	50 IU/kg IV once weekly	50 IU/kg/dose
Eloctate®	50 IU/kg IV every 4 days	65 IU/kg/dose
Esperoct®	65 IU/kg IV twice weekly	65 IU/kg
Helixate FS®, Kogenate FS®	25 IU/kg IV three times per week	25 IU/kg/dose
Jivi®	45-60 IU/kg every 5 days with further individual adjustment to less or more frequent dosing	60 IU/kg/dose
Kovaltry®	20-40 IU/kg IV 2-3 times per week	50 IU/kg/dose
NovoEight®	20-50 IU/kg IV 3 times per week	60 IU/kg/dose
Nuwiq®	30-40 IU/kg IV every other day	50 IU/kg/dose
Xyntha®	30 IU/kg IV 3 times weekly	30 IU/kg/dose
Plasma-derived FVIII/von Willebrand factor complex for routine prophylaxis		
Wilate®	20-40 IU/kg IV every 2 to 3 days	40 IU/kg/day
FVIII recombinant products for routine prophylaxis		
Hemlibra	Loading dose of 3 mg/kg SC weekly for four weeks, followed by a maintenance dose of 1.5	3 mg/kg/week for the first 4 weeks, followed by 1.5

Drug Name	Usual Dosing Regimen	Dose Limit/ Maximum Dose
	mg/kg SC weekly or 3 mg/kg once every two weeks or 6 mg/kg once every four weeks	mg/kg/week thereafter

Appendix C: Contraindications/Boxed Warnings

- Contraindication(s): active infections, either acute or uncontrolled chronic; known significant hepatic fibrosis (stage 3 or 4), or cirrhosis; known hypersensitivity to mannitol
- Boxed warning(s): none

Appendix D: General Information

- Serious bleeding episodes include bleeds in the following sites: intracranial; neck/throat; gastrointestinal; joints (hemarthrosis); muscles (especially deep compartments such as the iliopsoas, calf, forearm); or mucous membranes of the mouth, nose and genitourinary tract.
- Spontaneous bleed is defined as a bleeding episode that occurs without apparent cause and is not the result of trauma.
- An ED is a day on which a person with hemophilia has been infused with factor concentrate to treat or prevent a bleed. The number of EDs consists only of those days on which factor was infused.
    - 150 EDs of cumulative treatment increases the likelihood of immunologic stability – a decreased risk of producing inhibitors. Patients rarely develop inhibitors after 150 EDs.

VI. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
Hemophilia A	Recommended dose: 6 x 10^{13} vg/kg body weight as a single IV infusion	6 x 10^{13} vg/kg body weight

VII. Product Availability

Single-dose cell suspension: nominal concentration of 2 × 10^{13} vg/mL with each vial containing an extractable volume of ≥ 8 mL

VIII. References

1. Roctavian Prescribing Information. Novato, CA: BioMarin Pharmaceutical; June 2023. Available at: https://www.roctavian.com/en-us/wp-content/uploads/sites/5/2023/07/ROC-ROCTAVIAN-Prescribing-Information-PI-DIGITAL.pdf?v=0.24. Accessed October 23, 2025.
2. Ozelo MC, Mahlangu J, Pasi KJ, et al. Valoctocogene roxaparvovec gene therapy for hemophilia A. N Engl J Med. 2022;386(11):1013-25.
3. Srivastava A, Santagostino E, Dougall A, et al. WFH Guidelines for the Management of Hemophilia, 3rd edition. Haemophilia. 2020;26 Suppl 6:1-158.
4. Medical and Scientific Advisory Council (MASAC) of the National Bleeding Disorders Foundation (formerly National Hemophilia Foundation): Database of treatment guidelines. Available at: https://www.hemophilia.org/healthcare-professionals/guidelines-on-care/masac-documents. Accessed November 24, 2025.

5. Rezende SM, Neumann I, Angchaisuksiri P, et al. International Society on Thrombosis and Haemostasis clinical practice guideline for treatment of congenital hemophilia A and B based on the Grading of Recommendations Assessment, Development, and Evaluation methodology. J Thromb Haemost. 2024;22(9):2629-2652.

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
J1412	Injection, valoctocogene roxaparvovec-rvox, per ml, containing nominal 2 x 10^{13} vector genomes

Reviews, Revisions, and Approvals	Date
Policy created	07/2023
1Q 2024 annual review: added exclusion for prior gene therapy per pivotal trial exclusion criteria; references reviewed and updated.	01/2024
1Q 2025 annual review: no significant changes; added HCPCS code [J1412]; references reviewed and updated.	01/2025
1Q 2026 annual review: no significant changes; removed requirement for documentation of body weight; references reviewed and updated.	01/2026