

## Hemgenix® (etranacogene dezaparvovec-drlb) (Intravenous)

Effective Date: 5/1/2023

Review Date: 3/30/2023, 12/07/2023, 01/04/2024, 3/27/2024

Scope: Medicaid, Commercial, Medicare-Medicaid Plan (MMP)

### I. Length of Authorization

Coverage will be provided for one dose and may not be renewed.

### II. Dosing Limits

#### A. Quantity Limit (max daily dose) [NDC Unit]:

- 1 kit (based on weight chart below)

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

- 1 kit (based on weight chart below)

### III. Summary of Evidence

Hemgenix (etranacogene dezaparvovec) is a one-time weight-based gene therapy indicated for the treatment of adults with Hemophilia B (congenital factor IX [FIX] deficiency) who currently use FIX prophylaxis therapy or have current or historical life-threatening hemorrhage or have repeated, serious spontaneous bleeding episodes. Hemophilia B is an X-linked genetic bleeding disorder that results from missing or insufficient levels of FIX. The clinical efficacy of Hemgenix was evaluated in HOPE-B, a phase 3, open-label clinical trial with 54 patients. A 54% reduction in annualized bleeding rates (ABR) was demonstrated with a mean ABR of 4.1 during the lead-in period (first 6 months) to a mean ABR of 1.9 during months 7 to 18 after Hemgenix treatment. The most common side effects, occurring in over 5% of patients in the trial were liver enzyme elevations, headache, mild infusion-related reactions, and flu-like symptoms. In the trial, 94% of patients treated with Hemgenix discontinued use of prophylaxis and remained free of previous continuous routine prophylaxis therapy.

### IV. Initial Approval Criteria <sup>1-11</sup>

Submission of medical records (chart notes) related to the medical necessity criteria is REQUIRED on all requests for authorizations. Records will be reviewed at the time of submission. Please provide documentation related to diagnosis, step therapy, and clinical markers (i.e. genetic and mutational testing) supporting initiation when applicable. Please provide documentation via direct upload through the PA web portal or by fax.

Coverage is provided in the following conditions:

## Hemophilia B (Congenital Factor IX Deficiency) † Φ

- Patient is at least 18 years of age; **AND**
- Hemgenix must be prescribed by, or consultation with a hematologist; **AND**
- Patient has a diagnosis of moderately severe or severe congenital factor IX deficiency (i.e., ≤2% of normal circulating factor IX), as confirmed by blood coagulation testing, for which the subject is on continuous routine factor IX prophylaxis, unless there is a contraindication or intolerance (*Note: Continuous routine prophylaxis is defined as the intent of treating with an a priori defined frequency of infusions (e.g., twice weekly, once every two weeks, etc.) as documented in the medical records*); **AND**
- Patient has not received prior hemophilia AAV-vector-based gene therapy; **AND**
- Patient has one or more of the following:
  - Currently use Factor IX prophylaxis therapy; **OR**
  - Have current or historical life-threatening hemorrhage; **OR**
  - Have repeated, serious spontaneous bleeding episodes, (e.g., intramuscular hematomas requiring hospitalization, hemarthrosis, central nervous system (CNS) bleeding (including intracranial hemorrhage), pulmonary hemorrhage, life-threatening gastrointestinal (GI) hemorrhage and umbilical cord bleeding); **AND**
- Patient has been tested and found negative for Factor IX inhibitor titers (if test result is positive, re-test within approximately 2 weeks. If re-test is also positive, Hemgenix should not be given); **AND**
- Patient Factor IX activity will be monitored periodically (e.g., weekly for 3 months) as well as presence of inhibitors if bleeding is not controlled (note: patients will continue to require exogenous Factor IX until response to Hemgenix occurs) ; **AND**
- Patient will discontinue Factor IX prophylaxis therapy upon achieving FIX levels of 5% from Hemgenix (etranacogene dezaparvovec) treatment; **AND**
- Patient has been screened for anti-AAV5 antibody titers and has been deemed a suitable candidate for treatment (*Note: this assay was used in the HOPE-B clinical trial and is assessable via CSL Behring*); **AND**
- Patient will have baseline liver function assessed prior to and after therapy, weekly, for at least 3 months; **AND**
- Patients with preexisting risk factors for hepatocellular carcinoma (e.g., patients with cirrhosis, advanced hepatic fibrosis, hepatitis C or B, non-alcoholic fatty liver disease (NAFLD), chronic alcohol consumption, non-alcoholic steatohepatitis (NASH), and advanced age) will have abdominal ultrasound screenings and be monitored regularly (e.g., annually) for alpha-fetoprotein (AFP) elevations following administration

† FDA Approved Indication(s); ‡ Compendium Recommended Indication(s); Φ Orphan Drug

## V. Renewal Criteria

Coverage cannot be renewed.

## VI. Dosage/Administration

| Indication               | Dose   |
|--------------------------|--|
| Hemophilia B (Congenital | The recommended dose of Hemgenix is $2 \times 10^{13}$ genome copies (gc) per kilogram (kg) of body weight (or 2 mL/kg body weight) administered as an intravenous infusion. |

|   |  |
|---|--|
| Factor IX<br>Deficiency   | <p><u>Calculate the dose as follows:</u></p> <ul style="list-style-type: none"> <li>– Hemgenix dose (in mL) = patient body weight (in kilogram) x 2</li> </ul> <p><i>The multiplication factor 2 represents the per kilogram dose (<math>2 \times 10^{13}</math> gc/ kg) divided by the amount of genome copies per mL of the Hemgenix solution (<math>1 \times 10^{13}</math> gc/ mL).</i></p> <ul style="list-style-type: none"> <li>– Number of Hemgenix vials needed = Hemgenix dose (in mL) divided by 10 (round up to next whole number of vials).</li> </ul> <p><i>The division factor 10 represents the extractable volume of Hemgenix from each vial (10 mL).</i></p> |
| <ul style="list-style-type: none"> <li>• Prepare Hemgenix using sterile technique under aseptic conditions, proper engineering controls (e.g, biological safety cabinet or isolator) and according to institutional policies.</li> <li>• Do not expose Hemgenix to the light of an ultraviolet radiation disinfection lamp.</li> <li>• Confirm that the patient's identity matches with the patient-specific identifier number on the outer carton.</li> <li>• Verify the required dose of Hemgenix based on the patient's body weight.</li> <li>• Confirm that the carton contains sufficient number of vials to prepare the diluted Hemgenix patient-specific infusion bag.</li> <li>• Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration, whenever solution and container permit.</li> <li>• For single-dose intravenous infusion only.</li> <li>• DO NOT administer Hemgenix as an intravenous push or bolus.</li> <li>• DO NOT infuse the diluted Hemgenix solution in the same intravenous line with any other products.</li> <li>• DO NOT use a central line or port.</li> </ul> |  |

## VII. Billing Code/Availability Information

### HCPCS code:

- J1411 Injection, etranacogene dezaparvovec-drlb, per therapeutic dose

### NDC:

#### Hemgenix kit sizes:

| Total number of vials | Patient Weight (kg) | Total Volume (mL) | NDC           |
|-----------------------|---------------------|-------------------|---------------|
| 10                    | 46-50               | 100               | 00053-0100-10 |
| 11                    | 51-55               | 110               | 00053-0110-11 |
| 12                    | 56-60               | 120               | 00053-0120-12 |
| 13                    | 61-65               | 130               | 00053-0130-13 |
| 14                    | 66-70               | 140               | 00053-0140-14 |
| 15                    | 71-75               | 150               | 00053-0150-15 |
| 16                    | 76-80               | 160               | 00053-0160-16 |
| 17                    | 81-85               | 170               | 00053-0170-17 |
| 18                    | 86-90               | 180               | 00053-0180-18 |
| 19                    | 91-95               | 190               | 00053-0190-19 |
| 20                    | 96-100              | 200               | 00053-0200-20 |
| 21                    | 101-105             | 210               | 00053-0210-21 |
| 22                    | 106-110             | 220               | 00053-0220-22 |
| 23                    | 111-115             | 230               | 00053-0230-23 |
| 24                    | 116-120             | 240               | 00053-0240-24 |
| 25                    | 121-125             | 250               | 00053-0250-25 |
| 26                    | 126-130             | 260               | 00053-0260-26 |
| 27                    | 131-135             | 270               | 00053-0270-27 |

|    |         |     |               |
|----|---------|-----|---------------|
| 28 | 136-140 | 280 | 00053-0280-28 |
| 29 | 141-145 | 290 | 00053-0290-29 |
| 30 | 146-150 | 300 | 00053-0300-30 |
| 31 | 151-155 | 310 | 00053-0310-31 |
| 32 | 156-160 | 320 | 00053-0320-32 |
| 33 | 161-165 | 330 | 00053-0330-33 |
| 34 | 166-170 | 340 | 00053-0340-34 |
| 35 | 171-175 | 350 | 00053-0350-35 |
| 36 | 176-180 | 360 | 00053-0360-36 |
| 37 | 181-185 | 370 | 00053-0370-37 |
| 38 | 186-190 | 380 | 00053-0380-38 |
| 39 | 191-195 | 390 | 00053-0390-39 |
| 40 | 196-200 | 400 | 00053-0400-40 |
| 41 | 201-205 | 410 | 00053-0410-41 |
| 42 | 206-210 | 420 | 00053-0420-42 |
| 43 | 211-215 | 430 | 00053-0430-43 |
| 44 | 216-220 | 440 | 00053-0440-44 |
| 45 | 221-225 | 450 | 00053-0450-45 |
| 46 | 226-230 | 460 | 00053-0460-46 |
| 47 | 231-235 | 470 | 00053-0470-47 |
| 48 | 236-240 | 480 | 53-480-48     |

MMP members who have previously received this medication within the past 365 days are not subject to Step Therapy Requirements.

## VIII. References

1. Hemgenix [package insert]. King of Prussia, PA; CSL Behring, LLC., May 2023. Accessed November 2023.
2. MASAC RECOMMENDATIONS CONCERNING PRODUCTS LICENSED FOR THE TREATMENT OF HEMOPHILIA AND OTHER BLEEDING DISORDERS. National Hemophilia Foundation. MASAC Document #263; August 2020. Available at: <http://www.hemophilia.org>. Accessed April 2022 .
3. Guidelines for the Management of Hemophilia. 3<sup>rd</sup> Edition. World Federation of Hemophilia 2020. Available at: <https://www1.wfh.org/publications/files/pdf-1863.pdf>. Accessed April 2022.
4. Annual Review of Factor Replacement Products. Oklahoma Health Care Authority Review Board. Updated April 2016. Accessed April 2022.
5. Graham A1, Jaworski K. Pharmacokinetic analysis of anti-hemophilic factor in the obese patient. Haemophilia. 2014 Mar;20(2):226-9.
6. Croteau SE1, Neufeld EJ. Transition considerations for extended half-life factor products. Haemophilia. 2015 May;21(3):285-8.
7. Mingot-Castellano, et al. Application of Pharmacokinetics Programs in Optimization of Haemostatic Treatment in Severe Hemophilia a Patients: Changes in Consumption, Clinical Outcomes and Quality of Life. Blood. 2014 December; 124 (21).

8. MASAC RECOMMENDATION CONCERNING PROPHYLAXIS. 2016 National Hemophilia Foundation. MASAC Document #241; February 2016. Available at: <http://www.hemophilia.org>. Accessed April 2022.
9. Rayment R, Chalmers E, Forsyth K, et al. Guidelines on the use of prophylactic factor replacement for children and adults with Haemophilia A and B. *B J Haem*:190;5, Sep 2020. <https://doi.org/10.1111/bjh.16704>. Accessed April 2022.
10. Peyvandi F, Palla R, Menegatti M, et al. Coagulation factor activity and clinical bleeding severity in rare bleeding disorders: results from the European Network of Rare Bleeding Disorders. *J Thromb Haemost*. 2012;10:615-621.

## Appendix 1 – Covered Diagnosis Codes

| ICD-10 | ICD-10 Description              |
|--------|---------------------------------|
| D67    | Hereditary factor IX deficiency |

## Appendix 2 – Centers for Medicare and Medicaid Services (CMS)

Medicare coverage for outpatient (Part B) drugs is outlined in the Medicare Benefit Policy Manual (Pub. 100-2), Chapter 15, §50 Drugs and Biologicals. In addition, National Coverage Determination (NCD), Local Coverage Articles (LCAs) and Local Coverage Determinations (LCDs) may exist and compliance with these policies is required where applicable. They can be found at: <http://www.cms.gov/medicare-coverage-database/search.aspx>. Additional indications may be covered at the discretion of the health plan.

Medicare Part B Covered Diagnosis Codes (applicable to existing NCD/LCA/LCD): N/A

| Medicare Part B Administrative Contractor (MAC) Jurisdictions |   |   |
|---|---|---|
| Jurisdiction  | Applicable State/US Territory   | Contractor  |
| E (1)   | CA, HI, NV, AS, GU, CNMI  | Noridian Healthcare Solutions, LLC                |
| F (2 & 3)   | AK, WA, OR, ID, ND, SD, MT, WY, UT, AZ  | Noridian Healthcare Solutions, LLC                |
| 5   | KS, NE, IA, MO  | Wisconsin Physicians Service Insurance Corp (WPS) |
| 6   | MN, WI, IL  | National Government Services, Inc. (NGS)          |
| H (4 & 7)   | LA, AR, MS, TX, OK, CO, NM  | Novitas Solutions, Inc.                           |
| 8   | MI, IN  | Wisconsin Physicians Service Insurance Corp (WPS) |
| N (9)   | FL, PR, VI  | First Coast Service Options, Inc.                 |
| J (10)  | TN, GA, AL  | Palmetto GBA, LLC                                 |
| M (11)  | NC, SC, WV, VA (excluding below)  | Palmetto GBA, LLC                                 |
| L (12)  | DE, MD, PA, NJ, DC (includes Arlington & Fairfax counties and the city of Alexandria in VA) | Novitas Solutions, Inc.                           |
| K (13 & 14)   | NY, CT, MA, RI, VT, ME, NH  | National Government Services, Inc. (NGS)          |
| 15  | KY, OH  | CGS Administrators, LLC                           |

**Policy Rationale:**

Hemgenix was reviewed by the Neighborhood Health Plan of Rhode Island Pharmacy & Therapeutics (P&T) Committee. Neighborhood adopted the following clinical coverage criteria to ensure that its members use Hemgenix to Food and Drug Administration (FDA) approved labeling and/or relevant clinical literature. Neighborhood worked with network prescribers and pharmacists to draft these criteria. These criteria will help ensure its members are using this drug for a medically accepted indication, while minimizing the risk for adverse effects and ensuring more cost-effective options are used first, if applicable and appropriate. For INTEGRITY (Medicare-Medicaid Plan) members, these coverage criteria will only apply in the absence of National Coverage Determination (NCD) or Local Coverage Determination (LCD) criteria. Neighborhood will give individual consideration to each request it reviews based on the information submitted by the prescriber and other information available to the plan.