SmartPA Criteria Proposal

Drug/Drug Class:	Hemgenix Clinical Edit
First Implementation Date:	TBD
Proposed Date:	April 18, 2023
Prepared for:	MO HealthNet
Prepared by:	MO HealthNet/Conduent
Criteria Status:	☐Existing Criteria ☐Revision of Existing Criteria ☒New Criteria

Executive Summary

Purpose: Ensure appropriate utilization and control of Hemgenix® (etranacogene dezaparvovec-drlb).

Why Issue Selected: On November 22, 2022, the U.S. Food and Drug Administration (FDA) approved Hemgenix® (etranacogene dezaparvovec-drlb), the first and only one-time gene therapy for adults with hemophilia B. Hemgenix is approved for the treatment of adults with hemophilia B who currently use factor IX prophylaxis therapy or have current or historical life-threatening hemorrhage or have repeated, serious spontaneous bleeding episodes.

Hemophilia is caused by a single pathogenic variant, which results in insufficient production of hepatically synthesized clotting factors. Insufficient circulating clotting factors can lead to bleeding that can cause significant morbidity and mortality. Because it is an X-linked recessive hereditary disease it primarily presents in male children of female carriers. There are two main types of hemophilia - hemophilia A (Factor VIII deficiency) and hemophilia B (Factor IX deficiency). Generally, patients with severe hemophilia (clotting factor level <1% of normal) can develop spontaneous bleeds even in the absence of trauma. Conversely, patients with mild hemophilia (clotting factor level ≥5% to <40% of normal) usually do not bleed unless a traumatic event is experienced. Amongst all patients with hemophilia, approximately 4 in 10 have the severe form of the disease.

Hemgenix uses a modified adeno-associated virus 5 (AAV5) to deliver a highly functional copy of the Factor IX gene, called FIX-Padua, to patients' hepatic cells, the body's main producers of clotting factors. The FIX-Padua gene version was shown to result in Factor IX clotting activity five to eight times greater than the activity normally associated with the Factor IX gene. As such, the therapy — given as a one-time infusion directly into the bloodstream — is expected to increase Factor IX levels, helping to prevent and control bleeding for long periods of time.

Due to the high cost and specific approved indication, MO HealthNet will impose clinical criteria to ensure appropriate utilization of Hemgenix.

Program-Specific Information:

Drug	Cost per Kit (WAC)
HEMGENIX WEIGHT-BASED KIT	$3,500,000

Type of Criteria:	☐ **Increased risk of ADE**	☐ **Preferred Drug List**
	☒ **Appropriate Indications**	☒ **Clinical Edit**
Data Sources:	☐ **Only Administrative Databases**	☒ **Databases + Prescriber-Supplied**

Setting & Population

- Drug class for review: Hemgenix® (etranacogene dezaparvovec-drlb)
- Age range: All appropriate MO HealthNet participants aged 18 years and older

Approval Criteria

- Participant is aged ≥ 18 years **AND**
- Documented diagnosis of moderately severe or severe hemophilia B **AND**
- Diagnosis is confirmed by documentation of a clotting factor 1 - 2% of normal **AND**
- Documentation of a negative Factor IX inhibitor titer test **AND**
- Confirmed AAV5 titer level < 1,000 **AND**
- Baseline documentation of (within last six months):
    - Factor IX activity
    - AST/ALT
    - INR
    - Alkaline phosphatase
    - Total bilirubin
    - Blood creatine kinase
    - Hepatic ultrasound & elastography
- Approval is for one kit

Denial Criteria

- Previous gene therapy for hemophilia B at any time
- Therapy will be denied if all approval criteria are not met
- Participant has a documented diagnosis of mild or moderate hemophilia B confirmed by clotting factor > 2% of normal

Required Documentation

Laboratory Results:	X	Progress Notes:	X
MedWatch Form:		Other:	X

Disposition of Edit

Denial: Exception code “0682” (Clinical Edit)
Rule Type: CE

Default Approval Period

3 months

References

- Hemgenix® (etranacogene dezaparvovec-drlb) [package insert]. Kankakee, IL: CSL Behring; November 2022.
- IPD Analytics. New Drug Review: Hemgenix (etranacogene dezaparvovec). December 2022.
- IPD Analytics. P&T Watchlist 11/28/2022. Accessed January 25, 2023.
- CSL Behring Newsroom. U.S. Food and Drug Administration approves CSL's HEMGENIX® (etranacogene dezaparvovec-drlb), the first gene therapy for hemophilia B. https://www.cslbehring.com/newsroom/2022/fda-hemgenix. Last updated November 22, 2022. Accessed January 25, 2023.
- CDC. A New Study of Hemophilia Occurrence Finds Many More Cases in the United States. https://www.cdc.gov/ncbddd/hemophilia/features/keyfinding-hemophilia-occurrence-US.html. Last updated August 2022. Accessed January 25, 2023.
- Thornburg CD. Etranacogene dezaparvovec for hemophilia B gene therapy. Ther Adv Rare Dis 2021, Vol. 2: 1–14.
- NIH: U.S. National Library of Medicine. Trial of AMT-061 in Severe or Moderately Severe Hemophilia B Patients (HOPE-B). https://clinicaltrials.gov/ct2/show/NCT03569891?term=HOPE+B&draw=2&rank=1. Accessed January 25, 2023.
- IPD Analytics. Hemophilia Treatment and Management Update. January 2022.