Mass General Brigham
Health Plan

Medical Policy
Vyjuvek (beremagene geperpavec)

Policy Number: 073

	Commercial and Qualified Health Plans*	Mass General Brigham ACO	Medicare Advantage	One Care	Senior Care Options (SCO)
Authorization Required	X	X	X	X	X
No Prior Authorization					

**Prior authorization for Vyjuvek for Commercial and Qualified Health Plan members is managed by Prime Therapeutics. See the Prime Therapeutics policy for Vyjuvek for medical necessity criteria.*

Overview

Vyjuivek (beremagene geperpavec) is a topical gene therapy based on a replication-defective herpes simplex virus 1 vector, indicated for the treatment of wounds in patients with dystrophic epidermolysis bullosa (DEB).

Criteria

1. Criteria

   Authorization may be granted to members when **ALL** of the following criteria are met:

   A. Age of at least 6 months; and

   B. Diagnosis of DEB with mutation(s) in the *collagen type VII (COL7A1)* gene; and

   C. At least one open wound with granulation tissue, good vascularity, and no evidence of infection; and

   D. Prescriber is a dermatologist or other specialist with expertise in DEB; and

   E. If treated with Vyjuvek within the past year, documentation shows adequate treatment response; and

   F. Appropriate dosing (see below).

2. Dosing and administration
   - Vyjuvek is applied weekly to open wounds until wounds closed.
   - Dosing is dependent on wound area. See prescribing information on FDA package insert.
   - Maximum weekly dose is 1.6×10^9 plaque forming units (PFU), or 0.8 mL, for children 6 months to <3 years old, and 3.2×10^9 PFU, or 1.6 mL, for patients ≥3 years old.

Exclusions

- Vyjuvek will not be used in combination with Zevaskyn or any other topical therapies for DEB on the same target wounds.

Medicare Variation

Mass General Brigham Health Plan uses guidance from the Centers for Medicare and Medicaid Services (CMS) for medical necessity determinations for its Medicare Advantage plan members. National Coverage

Determinations (NCDs), Local Coverage Determinations (LCDs), Local Coverage Articles (LCAs), and documentation included in the Medicare manuals are the basis for medical necessity determinations. When there is no guidance from CMS for the requested service, Mass General Brigham Health Plan's medical policies are used for medical necessity determinations. **As of Mass General Brigham Health Plan's most recent policy review, CMS had:**

- **Medicare Benefit Policy Manual Chapter 15: Covered Medical and Other Health Services**

When CMS documentation references FDA labeling, Mass General Brigham Health Plan develops coverage criteria to clarify medical necessity of the requested services. Mass General Brigham Health Plan coverage criteria align with FDA labeling without contradicting existing determinations and enhance the clarity of medical necessity requirements, documentation requirements, and clinical indications.

Mass General Brigham ACO Variation
Mass General Brigham Health Plan uses the MassHealth Drug List for medical necessity determinations for members of the Mass General Brigham ACO. Criteria for Vyjuek are found in Table 72: Agents Not Otherwise Specified.

One Care and SCO Variation
Mass General Brigham Health Plan uses guidance from CMS for medical necessity determinations for its One Care and SCO plan members. NCDs, LCDs, LCAs, and documentation included in the Medicare manuals are the basis for medical necessity determinations. When there is no guidance from CMS for the requested service, Mass General Brigham Health Plan uses medical necessity guidelines from MassHealth. When there is no guidance from CMS or from MassHealth, Mass General Brigham Health Plan's medical policies are used for medical necessity determinations.

Codes

The following codes are included below for informational purposes only; inclusion of a code does not constitute or imply coverage or reimbursement.

Authorized CPT/HCPCS Codes	Code Description
J3401	Beremagene gepervavec-svdt for topical administration, containing nominal $5x10^9$ PFU/mL vector genomes, per 0.1 mL

Summary of Evidence
The development and clinical validation of Vyjuvek, beremagene geperpavec (B-VEC) for recessive dystrophic epidermolysis bullosa (RDEB) treatment emerged through two pivotal studies published in 2022, marking significant progress in topical gene therapy. The foundational research demonstrated that B-VEC produced C7 expression in RDEB keratinocytes and fibroblasts in vitro, and a phase 1/2 single-center, open-label trial demonstrated in vivo C7 expression, anchoring fibril assembly, and wound closure in patients with RDEB (Gurevich et al. 2022).

In a phase 3, double-blind, intrapatient randomized, placebo-controlled study of patients 6 months to 44 years old, 67% of B-VEC-treated wounds achieving complete healing at 6 months, compared to 22% for placebo-treated wounds (Guide et al. 2022). Adverse events were generally minor. Of note, this study included 30 patients with RDEB and one with dominant dystrophic epidermolysis bullosa.

Together, these studies established B-VEC as a groundbreaking advancement in RDEB treatment. Notably, FDA authorization includes both recessive and dominant DEB, an indication for which minimal clinical evidence is available and which constitutes approximately 50% of DEB. Subsequent literature has highlighted the lifetime cost of B-VEC, which is estimated at $15M-17M per patient (Raymakers et al. 2024).

Mass General Brigham Health Plan considers B-VEC to be medically necessary for members with open wounds due to dystrophic epidermolysis bullosa consistent with the inclusion criteria for the pivotal trial by Guide et al. (2022).

Effective
March 2026: Annual review. Added exclusion related to Zevaskyn and other topical gene therapy treatments for DEB. Clarified Medicare variation.
January 2026: Ad hoc review. Updated prior authorization table and added variation for One Care and SCO members. Fixed code disclaimer.
March 2025: Ad hoc review. Summary of evidence added. References updated.
April 2024: Effective Date.

References
Beremagene gepervavec-svdt [package insert]. Pittsburgh: Krystal Biotech, 2023.

Guide SV, Gonzalez ME, Bağcı IS, et al. Trial of beremagene geperpavec (B-VEC) for dystrophyic epidermolysis bullosa. NEJM 2022;387:2211-9.

Gurevich I, Agarwal P, Zhang P. In vivo topical gene therapy for recessive dystrophic epidermolysis bullosa: a phase 1 and 2 trial. Nature Medicine 2022;28;780-8.

Raymakers AJN, Kesselheim AS, Mostaghimi A, Feldman WB. Estimated spending on beremagene geperpavec for dystrophic epidermolysis bullosa. *JAMA Dermatol.* 2024;160(3):297-302.