

# Medical Policy



## Title: Vyjuvek (beremagene geperpavec-svdt) Medical Drug Criteria Program

<b>Professional / Institutional</b>
Original Effective Date: January 1, 2024
Latest Review Date: November 20, 2024
Current Effective Date: November 20, 2024

**State and Federal mandates and health plan member contract language, including specific provisions/exclusions, take precedence over Medical Policy and must be considered first in determining eligibility for coverage. To verify a member's benefits, contact [Blue Cross and Blue Shield of Kansas Customer Service](#).**

**The BCBSKS Medical Policies contained herein are for informational purposes and apply only to members who have health insurance through BCBSKS or who are covered by a self-insured group plan administered by BCBSKS. Medical Policy for FEP members is subject to FEP medical policy which may differ from BCBSKS Medical Policy.**

**The medical policies do not constitute medical advice or medical care. Treating health care providers are independent contractors and are neither employees nor agents of Blue Cross and Blue Shield of Kansas and are solely responsible for diagnosis, treatment and medical advice.**

**If your patient is covered under a different Blue Cross and Blue Shield plan, please refer to the Medical Policies of that plan.**

### FDA LABELED INDICATIONS AND DOSAGE

Agent(s)	FDA Indication(s)	Notes	Ref#
Vyjuvek®  (beremagene geperpavec-svdt)  Biological suspension mixed with excipient gel for topical application	Treatment of wounds in patients 6 months of age and older with dystrophic epidermolysis bullosa with mutation(s) in the <i>collagen type VII alpha 1 chain (COL7A1)</i> gene		1

[See package insert for FDA prescribing information:  
https://dailymed.nlm.nih.gov/dailymed/index.cfm](https://dailymed.nlm.nih.gov/dailymed/index.cfm)

### CLINICAL RATIONALE

Epidermolysis Bullosa	Epidermolysis bullosa (EB) encompasses a number of disorders characterized by recurrent blister formation as the result of structural fragility within the skin and selected other tissues caused by mutations in CLO7A1, the gene encoding the anchoring fibril component, collagen VII. All types and subtypes of EB are rare; the overall incidence and prevalence of the disease within the United States is approximately 19 per one million live births and 8 per one million population, respectively. Clinical manifestations range widely, from localized blistering of the hands and feet to generalized blistering of the skin and oral cavity, and injury to many internal organs. Each EB subtype is known to arise from mutations within the genes encoding for several different proteins, each of which is intimately involved in the maintenance of keratinocyte structural stability or adhesion of the keratinocyte to the underlying dermis. EB is best diagnosed and subclassified by the collective findings obtained via detailed personal and family history, in concert with the results of immunofluorescence antigenic mapping, transmission electron microscopy, and in some cases, by DNA analysis. Optimal patient management requires a multidisciplinary approach and revolves around the protection of susceptible tissues against trauma, use of sophisticated wound care dressings, aggressive nutritional support, and early medical or surgical interventions to correct whenever possible the extracutaneous complications. Prognosis varies considerably and is based on both EB subtype and the overall health of the patient. Currently, there is no cure for EB. Supportive care includes daily wound care, bandaging, and pain management as needed.(2,3)
Efficacy	Vyjuvek (beremagene geperpavec) is a replication-defective and nonintegrating, modified herpes simplex virus 1 vector that is topically applied to deliver a functional version of the COL7A1 gene directly to skin cells. Treatment with Vyjuvek seeks to restore the production of type VII collagen inpatients with EB. The GEM-1 trial evaluated the efficacy and safety of Vyjuvek in healing skin wounds in nine adult and pediatric patients. After 12 weeks, complete wound closure (reduction in wound area from baseline greater than or equal to 95 percent) was observed in 83 percent of the Vyjuvek treated wounds compared with 14 percent of the wounds treated with placebo. In many cases, the wound-healing duration was longer than 6 months. Adverse effects were mild and included fever, rash, and itching. Exclusion criteria included the presence of medical illness expected to complicate participation, presence of serum antibodies to type collagen VII, active infection in the area that will undergo treatment, evidence of systemic infection, and current evidence or a history of squamous cell carcinoma in the area that will undergo treatment.(3,4)

	<p>The GEM-3 trial was a multi-center, randomized, double-blind placebo-controlled phase 3 trial that enrolled 31 people aged 6 months or older. Treatment response to Vyjuvek was not associated with anti-HSV-1 serostatus at baseline or with anti-COL7 seroconversion. The HSV-1 serology status of the study patients was as follows:(5,7)</p> <ul style="list-style-type: none"> <li>• At baseline, 14 of the 22 patients (63.6%) were anti-HSV-1 seropositive and 8 were seronegative, in agreement with seropositivity rates of the general US population</li> <li>• 6 of 8 (75.0%) baseline seronegative patients seroconverted at 6 months <ul style="list-style-type: none"> <li>○ For baseline seropositive patients, where quantitative differences at study completion could be calculated, antibody responses were not determined to be meaningful</li> </ul> </li> <li>• At baseline, 1 of 22 patients (4.5%) was positive for anti-COL7 antibodies. <ul style="list-style-type: none"> <li>○ 13 of 18 patients (72.2%) with matched serum samples seroconverted by 6 months; no clinically significant immunologic reactions or differences in treatment response were seen</li> </ul> </li> </ul> <p>GEM-3 met the primary and secondary efficacy endpoints in complete wound healing relative to placebo. Complete wound healing at 3 and 6 months in patients with dystrophic epidermolysis bullosa was more likely with topical administration of Vyjuvek than with placebo. An open-label extension study is underway to assess the long-term safety and efficacy of Vyjuvek for patients greater than or equal to 6 months of age, regardless of prior enrollment in GEM-3.(5,6)</p>
Safety	Vyjuvek has no FDA labeled contraindications for use.(1)

## REFERENCES

Number	Reference
1	Vyjuvek prescribing information. Krystal Biotech, Inc. May 2023.
2	Fine JD. Inherited epidermolysis bullosa. Orphanet J Rare Dis. 2010 May 28;5:12. doi: 10.1186/1750-1172-5-12
3	ClinicalTrials.gov Identifier: NCT03536143. A phase I/II study of KB103, a topical HSV1-COL7, on DEB patients. Updated January 31, 2023. <a href="https://clinicaltrials.gov/ct2/show/NCT03536143?cond=NCT03536143&amp;draw=2&amp;rank=1">https://clinicaltrials.gov/ct2/show/NCT03536143?cond=NCT03536143&amp;draw=2&amp;rank=1</a> .
4	Gurevich I, Agarwal P, Zhang P, et al. In vivo topical gene therapy for recessive dystrophic epidermolysis bullosa: a phase 1 and 2 trial. <i>Nat Med</i> . 2022;28(4):780-788. doi:10.1038/s41591-022-01737-y
5	Marinovich, M. Peter, Gonzalez, Mercedes E., et. al. GEM-3: A Phase 3 Study of Beremagene Geperpavec (B-VEC), an Investigational, Topical Gene Therapy, for the Treatment of Dystrophic Epidermolysis Bullosa (DEB). <a href="https://ir.krystalbio.com/static-files/bb74b04e-7e3d-44f8-afda-5469a3cf16b4">https://ir.krystalbio.com/static-files/bb74b04e-7e3d-44f8-afda-5469a3cf16b4</a> .

Number	Reference
6	Guide, Sharon V, Gonzalez, Mercedes E., et al. Trial of Beremagene Geperpavec (B-VEC) for Dystrophic Epidermolysis Bullosa. N Engl J Med. 2022 Dec 15;387(24):2211-2219. doi: 10.1056/NEJMoa2206663.

**CODING**

**The following codes for treatment and procedures applicable to this policy are included below for informational purposes. This may not be a comprehensive list of procedure codes applicable to this policy.**

**Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.**

**The code(s) listed below are medically necessary ONLY if the procedure is performed according to the “Policy” section of this document.**

**POLICY AGENT SUMMARY – MEDICAL PRIOR AUTHORIZATION**

HCPC Codes	Target Brand Agent Name(s)	Target Generic Agent Name(s)	Strength	Targeted MSC	Available MSC	Final Age Limit	Preferred Status
J3401	Vyjuvek	beremagene geperpavec-svdt gel	5000000000 PFU/2.5ML	M ; N ; O ; Y	N		

**CLIENT SUMMARY – PRIOR AUTHORIZATION**

Target Brand Agent Name(s)	Target Generic Agent Name(s)	Strength	Client Formulary
Vyjuvek	beremagene geperpavec-svdt gel	5000000000 PFU/2.5ML	Commercial ; HIM ; ResultsRx

**PRIOR AUTHORIZATION CLINICAL CRITERIA FOR APPROVAL**

Module	Clinical Criteria for Approval
PA	<p><b>Initial Evaluation</b></p> <p><b>Target Agent(s)</b> will be approved when ALL of the following are met:</p> <ol style="list-style-type: none"> <li>1. The patient has a diagnosis of dystrophic epidermolysis bullosa (DEB) <b>AND</b></li> <li>2. The patient has a genetic test result(s) showing mutation(s) in the COL7A1 gene (medical records required) <b>AND</b></li> <li>3. If the patient has an FDA labeled indication, then ONE of the following:               <ol style="list-style-type: none"> <li>A. The patient’s age is within FDA labeling for the requested indication for the requested agent <b>OR</b></li> <li>B. There is support for using the requested agent for the patient’s age for the requested indication <b>AND</b></li> </ol> </li> <li>4. The patient does NOT have current evidence or a history of squamous cell carcinoma on the area to be treated <b>AND</b></li> <li>5. The patient does NOT have an active infection on the area to be treated <b>AND</b></li> <li>6. The prescriber is a specialist in the area of the patient’s diagnosis (e.g., dermatologist, geneticist) or the prescriber has consulted with a specialist in the area of the patient’s diagnosis <b>AND</b></li> <li>7. The patient will NOT be using the requested agent in combination with Filsuvez or another gene therapy agent on the same area to be treated for the requested indication <b>AND</b></li> <li>8. The patient does NOT have any FDA labeled contraindications to the requested agent <b>AND</b></li> <li>9. The requested quantity (dose) does not exceed the maximum FDA labeled dose for the requested indication</li> </ol> <p><b>Length of Approval:</b> 6 months</p> <p><b>Renewal Evaluation</b></p> <p><b>Target Agents(s)</b> will be approved when ALL of the following are met:</p> <ol style="list-style-type: none"> <li>1. The patient has been previously approved for the requested agent through the plan’s Prior Authorization criteria [Note: patients not previously approved for the requested agent will require initial evaluation review] <b>AND</b></li> <li>2. The patient has had clinical benefit with the requested agent <b>AND</b></li> <li>3. The patient does NOT have current evidence or a history of squamous cell carcinoma on the area to be treated <b>AND</b></li> <li>4. The patient does NOT have an active infection on the area to be treated <b>AND</b></li> <li>5. The prescriber is a specialist in the area of the patient’s diagnosis (e.g., dermatologist, geneticist) or the prescriber has consulted with a specialist in the area of the patient’s diagnosis <b>AND</b></li> <li>6. The patient will NOT be using the requested agent in combination with Filsuvez or another gene therapy agent on the same area to be treated for the requested indication <b>AND</b></li> <li>7. The patient does NOT have any FDA labeled contraindications to the requested agent <b>AND</b></li> <li>8. The requested quantity (dose) does not exceed the maximum FDA labeled dose for the requested indication</li> </ol> <p><b>Length of Approval:</b> 12 months</p>

**Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.**

<b>REVISIONS</b>	
Posted 12-01-2023 Effective 01-01-2024	Policy added to the bcbsks.com web site.
11-20-2024	Policy Updates <ul style="list-style-type: none"> <li>▪ Added documentation to the policy for genetic test(s) confirmation of mutations(s) in the COL7A1 gene</li> <li>▪ Removed diagnostic testing requirements.</li> <li>▪ Standardized wording.</li> <li>▪ Added the disallowance requirement for combination therapy on the same wound of gene therapy products.</li> </ul>