DR.018.B Viltepso® (Viltolarsen)

Original Implementation Date : 07/01/2024
Version [B] Date : 06/18/2025
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PRODUCT VARIATIONS

This policy applies to all Jefferson Health Plans/Health Partners Plans lines of business unless noted below.

Gene therapy is a benefit exclusion for Individual and Family (ACA) product lines and therefore, non-covered.

POLICY STATEMENT

The Plan considers Viltolarsen (Viltepso®) medically necessary for its FDA approved indications when the prior authorization listed in this policy are met.

FDA APPROVED INDICATIONS

Gene Therapy is the introduction, removal, or change in the content of a person's genetic code with the goal of treating or curing a disease. It includes therapies such as gene transfer, gene modified cell therapy, and gene editing.

Viltepso® is an antisense oligonucleotide indicated for the treatment of Duchenne muscular dystrophy (DMD) in patients who have a confirmed mutation of the DMD gene that is amenable to exon 53 skipping. This indication is approved under accelerated approval based on an increase in dystrophin production in skeletal muscle observed in patients treated with VILTEPSO. Continued approval for this indication may be contingent upon verification and description of clinical benefit in a confirmatory trial.

OFF-LABEL USE

N/A

PRIOR AUTHORIZATION CRITERIA

Viltepso® (Viltolarsen)

Initial use of Viltepso® may be considered medically necessary when All of the following apply:

1. Individual has medical record documentation of a baseline evaluation, including a standardized assessment of motor function by a neurologist with experience treating Duchenne muscular dystrophy.

2. Individual has confirmed by genetic testing mutation of the DMD gene that is amendable to exon 53 skipping **and:**

    a) Has proper documentation of DMD

    b) Has not previously received gene replacement therapy for DMD (e.g., Elevidys); *or*

    c) Has previously received gene replacement therapy for DMD (e.g., Elevidys) and has experienced a worsening in clinical status since receiving gene replacement therapy (e.g., decline in ambulatory function)
3. Medication is being prescribed by, or in consultation with, a Neurologist, Neuromuscular specialist, or by a Muscular Dystrophy Association (MDA) clinic.
4. FDA Approved dosing/dose does not exceed 80mg/kg per week.
5. Must be on a stable dose of corticosteroids (unless contraindicated or intolerance) for at least 3 months.
6. Baseline testing prior to administration including serum cystatin C, urine dipstick, and urine protein-to-creatinine ratio.
7. Individual is not taking any other RNA antisense agent or any other gene therapy. E.g., exon skipping therapies (Amondys 45™, Exondys 51®, Vyondys 53™).

RENEWAL CRITERIA

Members who were previously established on Viltepso and subsequently administered gene replacement therapy (e.g., Elevidys) must meet all initial criteria prior to re-starting Viltepso and:

1. Documentation of an annual evaluation, including an assessment of motor function ability, by a neurologist with experience treating Duchenne muscular dystrophy.

2. Continues to benefit from the DMD Antisense Oligonucleotide based on the prescriber's assessment.

DOSAGE AND ADMINISTRATION

Viltepso® is a clear and colorless solution for intravenous infusion and is available as a 250 mg/5 mL (50 mg/mL) solution in a single-dose vial.

- **Administration**: Intravenous infusion over 60 minutes. If the volume of Viltepso® required is less than 100 mL, dilution in 0.9% Sodium Chloride Injection, USP, is required.
- **Dose:** Recommended dosage is 80 milligrams per kilogram of body weight once weekly

SAFETY AND MONITORING

Risk factors:

1. **Kidney Toxicity**: Based on animal data, may cause kidney toxicity. Kidney function should be monitored; creatinine may not be a reliable measure of renal function in DMD patients.

2. **Adverse Reactions**: Upper respiratory tract infection, injection site reaction, cough, pyrexia, contusion, arthralgia. Diarrhea, vomiting, abdominal pain, ejection fraction decreased, urticaria.

Monitoring:

- Serum cystatin C, urine dipstick, and urine protein-to-creatinine ratio should be measured before starting Viltepso®. Consider measurement of glomerular filtration rate prior to initiation of Viltepso®.

- Monitoring for kidney toxicity during treatment is recommended. Obtain the urine samples prior to infusion of Viltepso® or at least 48 hours after the most recent infusion.

BLACK BOX WARNING

N/A

CLINICAL EVIDENCE

Viltolarsen (Viltepso®)

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice. The effect of Viltepso® on dystrophin production was evaluated in one study in Duchenne muscular dystrophy (DMD) patients with a confirmed mutation of the DMD gene that is amenable to exon 53 skipping.

The study was a multicenter, 2-period, dose-finding study conducted in the United States and Canada in males 4 years to less than 10 years of age on a stable corticosteroid regimen for at least 3 months. Patients were randomized to treatment (Viltepso®) or placebo groups. All patients then received 20-week of open-label Viltepso® 40 mg/kg once weekly (0.5 times the recommended dosage) (N=8) or 80 mg/kg once weekly (N=8). Efficacy was assessed based on change from baseline in dystrophin protein level (measured as % of the dystrophin level in healthy subjects, i.e., % of normal) at Week 25. In patients who received Viltepso 80 mg/kg once weekly, mean dystrophin levels increased from 0.6% (SD 0.8) of normal at baseline to 5.9% (SD 4.5) of normal by Week 25, with a mean change in dystrophin of 5.3% (SD 4.5) of normal levels (p=0.01) as assessed by validated Western blot (normalized to myosin heavy chain); the median change from baseline was 3.8%. All patients demonstrated an increase in dystrophin levels over their baseline values. As assessed by mass spectrometry (normalized to filamin C), mean dystrophin levels increased from 0.6% (SD 0.2) of normal at baseline to 4.2% (SD 3.7) of normal by Week 25, with a mean change in dystrophin of 3.7% (SD 3.8) of normal levels (nominal p=0.03, not adjusted for multiple comparisons); the median change from baseline was 1.9%

BACKGROUND

Viltolarsen (Viltepso®) is an antisense oligonucleotide of the phosphorodiamidate morpholino oligomer (PMO) subclass. PMOs are synthetic molecules in which the five-membered ribofuranosyl rings found in natural DNA and RNA are replaced by a six-membered morpholino ring. Each morpholino ring is linked through an uncharged phosphorodiamidate moiety rather than the negatively charged phosphate linkage that is present in natural DNA and RNA. Each phosphorodiamidate morpholino subunit contains one of the heterocyclic bases found in DNA (adenine, cytosine, guanine, or thymine). Viltolarsen contains 21 linked subunits. The molecular formula of Viltolarsen is C H N O P and the molecular weight is 6924. Viltepso® is designed to bind to exon 53 of dystrophin pre-mRNA resulting in exclusion of this exon during mRNA processing in patients with genetic mutations that are amenable to exon 53 skipping. Exon 53 skipping is intended to allow for production of an internally truncated dystrophin protein in patients with genetic mutations that are amenable to exon 53 skipping.

After treatment with Viltepso® 80 mg/kg once weekly, all patients evaluated (N=8) were found to produce mRNA for a truncated dystrophin protein, as measured by reverse transcription polymerase chain reaction (RT-PCR), and demonstrated exon 53 skipping, as measured by DNA sequence analysis. Viltepso® is approved for the treatment of Duchenne muscular dystrophy, a condition that primarily affects males. Animal reproduction studies have not been conducted and females were not included in the original studies.

CODING

Note*:* The Current Procedural Terminology (CPT®), Healthcare Common Procedure Coding System (HCPCS), and the 10th revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) codes that *may* be listed in this policy are for reference purposes only. Listing of a code in this policy does not imply that the service is covered and is not a guarantee of payment. Other policies and coverage guidelines may apply. When reporting services, providers/facilities should code to the highest level of specificity using the code that was in effect on the date the service was rendered. This list may not be all inclusive.

CPT® is a registered trademark of the American Medical Association.

CPT Code	Description
N/A	

HCPCS Code	Description
J1427	Injection, Viltolarsen, 10 mg

ICD-10 Codes	Description
N/A	

BENEFIT APPLICATION

Medical policies do not constitute a description of benefits. This medical necessity policy assists in the administration of the member's benefits which may vary by line of business. Applicable benefit documents govern which services/items are eligible for coverage, subject to benefit limits, or excluded completely from coverage.

This policy is invoked only when the requested service is an eligible benefit as defined in the Member's applicable benefit contract on the date the service was rendered. Services determined by the Plan to be investigational or experimental are excluded from coverage for all lines of business. For Medicaid members under 21 years old, benefits and coverage are always based on medical necessity review.

DISCLAIMER

Approval or denial of payment does not constitute medical advice and is neither intended to guide nor influence medical decision making. Policy Bulletins are developed to assist in administering plan benefits and constitute neither offers of coverage nor medical advice. This Policy Bulletin may be updated and therefore is subject to change. *For Health Partners Plans Medicaid and Health Partners Plans Chip products:* Any requests for services that do not meet criteria set in PARP will be evaluated on a case-by-case basis.

POLICY HISTORY

This section provides a high-level summary of changes to the policy since the previous version.

Summary	Version	Version Date
2025 Annual review. Addition to Prior Authorization Criteria Section.	B	06/18/2025
New policy.	A	07/01/2024

REFERENCES

1. Viltepso (Viltolarsen) prescribing information. New Jersey (NJ). NS Pharma. Revised 2021 March.