Elevidys
(delandistrogene moxeparvovec)

Date of Origin: 09/01/2023 **Last Review Date: 12/01/2024** **Effective Date: 09/01/2023**

Dates Reviewed: 09/01; 12/24

Developed By: Medical Necessity Criteria Committee

I. Length of Authorization

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

II. Dosing Limits

- Duchenne muscular dystrophy (DMD)
  - One kit (based on weight chart below)

III. Initial Approval Criteria

Delandistrogene moxeparvovec (Elevidys) is considered **Experimental or Investigational** for the treatment of Duchenne muscular dystrophy (DMD) and when used in combination with any exon skipping therapy for DMD, as defined by a treatment for which scientific or medical assessment has not been completed, or the effectiveness of the treatment has not been generally established. For more information, please refer to the member handbook.

IV. Renewal Criteria

- N/A

V. Supporting Evidence

- Delandistrogene moxeparvovec (Elevidys) is a gene therapy indicated in individuals at least four years of age for the treatment of DMD in patients who are ambulatory and have a confirmed mutation in the *DMD* gene and for the treatment of DMD in patients who are non-ambulatory and have a confirmed mutation in the *DMD* gene.
- Delandistrogene moxeparvovec (Elevidys) was initially approved in June 2023 via the accelerated approval pathway in boys aged 4 to 7 years. In June 2024, this approval was transitioned to a full approval in ambulatory patients, and an additional indication in non-ambulatory patients was added based on a randomized study that *failed* to meet is primary endpoint of improvement in the NSSA score vs placebo.

- Use in the non-ambulatory population is approved under accelerated approval based on expression of "micro-dystrophin". Continued approval for this indication may be contingent upon verification and description of a clinical benefit in a confirmatory trial.
- A consistent clinical benefit, such as improved quality of life, slowing of disease progression, and preservation of ambulation) have not been established for delandistrogene moxeparvovec (Elevidys) for the treatment of DMD.
- The clinical trial program for delandistrogene moxeparvovec (Elevidys) included two double-blink, placebo-controlled studies (Study 1/Study 102 and Study 3) and one open-label study (Study 2/Study 103/ENDEAVOR) which included a total of 214 male patients. All patients included in the clinical trial program were between the age of 4 through 7 *only*.
- Study 1/Study 102 included 41 ambulatory males aged 4 through 7 years who received either delandistrogene moxeparvovec (Elevidys) or placebo as a single infusion. The primary efficacy endpoints were expression of micro-dystrophin in skeletal muscle and effect of treatment on the North Star Ambulatory Assessment (NSSA) total score.
    - While there was a statistically significant difference in micro-dystrophin level from baseline to week 12, a clear association between micro-dystrophin expression (a surrogate marker) and clinical outcomes has not been established.
    - The change in NSAA total score was not statistically significant at week 48.
- Study 3/EMBARK included 125 ambulatory male patients aged 4 through 7 years who received either delandistrogene moxeparvovec (Elevidys) or placebo as a single infusion. The primary efficacy endpoint was to evaluate the effect of treatment on physical function as assessed by the NSAA total score. Secondary endpoints included expression of micro-dystrophin, time to rise from floor, and time of 10-meter walk/run.
    - While there was a statistically significant difference in micro-dystrophin level from baseline to week 12, a clear association between micro-dystrophin expression (a surrogate marker) and clinical outcomes has not been established.
    - The change in NSAA score was not statistically significant at week 52. Improvement in secondary outcome function measures were noted.
- Study 2/Study 103/ENDEAVOR is an ongoing, open-label study that includes five cohorts (of varying mutation types) of 48 male DMD patients. Ambulatory patients represent 40 of the 48 patients, while 8 non-ambulatory patients were included. The primary efficacy outcome measure was to evaluate the effect of micro-dystrophin expression.
    - While there was a statistically significant difference in micro-dystrophin level from baseline to week 12, a clear association between micro-dystrophin expression (a surrogate marker) and clinical outcomes has not been established.
- Due to the small patient population studied, which is limited to 4- to 7-year-old boys, there is limited safety data available, and the longer-term safety profile remains unknown. Adverse effects in the clinical trial ranged from mild to severe. The most common adverse reactions occurring in clinical trials were vomiting, nausea, liver injury, pyrexia, and thrombocytopenia. Warnings and precautions exist for infusion-related reactions, acute serious liver injury, immune-mediated myositis, and myocarditis.

- While the current body of evidence for delandistrogene moxeparvovec (Elevidys) in the treatment of DMD in ambulatory and non-ambulatory patients is trending towards positive outcomes, additional confirmatory trials are required to establish a confirmed and consistent clinical benefit, as well as to 3stablish safety. It remains unknown if delandistrogene moxeparvovec (Elevidys) improves clinically meaningful outcomes such as quality of life, prevention of disability, and maintenance or improvement in function/mobility.

VI. Dosage/Administration

Indication	Dose
Duchenne muscular dystrophy	The recommended dose is 1.33 × 1014 vector genomes per kilogram (vg/kg) of body weight (or 10 mL/kg body weight).

VII. Billing Code/Availability Information

- J1413 – Injection, delandistrogene moxeparvovec (Elevidys)
- NDC: Elevidys kit sizes:
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Patient Weight (kg)	Total Vials (and mL) per Kit	NDC	Patient Weight (kg)	Total Vials (and mL) per Kit	NDC
10.0 – 10.4	10 (100)	60923-0501-10	39.5 – 40.4	40 (400)	60923-0531-40
10.5 – 11.4	11 (110)	60923-0502-11	40.5 – 41.4	41 (410)	60923-0532-41
11.5 – 12.4	12 (120)	60923-0503-12	41.5 – 42.4	42 (420)	60923-0533-42
12.5 – 13.4	13 (130)	60923-0504-13	42.5 – 43.4	43 (430)	60923-0534-43
13.5 – 14.4	14 (140)	60923-0505-14	43.5 – 44.4	44 (440)	60923-0535-44
14.5 – 15.4	15 (150)	60923-0506-15	44.5 – 45.4	45 (450)	60923-0536-45
15.5 – 16.4	16 (160)	60923-0507-16	45.5 – 46.4	46 (460)	60923-0537-46
16.5 – 17.4	17 (170)	60923-0508-17	46.5 – 47.4	47 (470)	60923-0538-47
17.5 – 18.4	18 (180)	60923-0509-18	47.5 – 48.4	48 (480)	60923-0539-48
18.5 – 19.4	19 (190)	60923-0510-19	48.5 – 49.4	49 (490)	60923-0540-49
19.5 – 20.4	20 (200)	60923-0511-20	49.5 – 50.4	50 (500)	60923-0541-50
20.5 – 21.4	21 (210)	60923-0512-21	50.5 – 51.4	51 (510)	60923-0542-51
21.5 – 22.4	22 (220)	60923-0513-22	51.5 – 52.4	52 (520)	60923-0543-52
22.5 – 23.4	23 (230)	60923-0514-23	52.5 – 53.4	53 (530)	60923-0544-53
23.5 – 24.4	24 (240)	60923-0515-24	53.5 – 54.4	54 (540)	60923-0545-54
24.5 – 25.4	25 (250)	60923-0516-25	54.5 – 55.4	55 (550)	60923-0546-55
25.5 – 26.4	26 (260)	60923-0517-26	55.5 – 56.4	56 (560)	60923-0547-56
26.5 – 27.4	27 (270)	60923-0518-27	56.5 – 57.4	57 (570)	60923-0548-57
27.5 – 28.4	28 (280)	60923-0519-28	57.5 – 58.4	58 (580)	60923-0549-58
28.5 – 29.4	29 (290)	60923-0520-29	58.5 – 59.4	59 (590)	60923-0550-59
29.5 – 30.4	30 (300)	60923-0521-30	59.5 – 60.4	60 (600)	60923-0551-60

30.5 – 31.4	31 (310)	60923-0522-31	60.5 – 61.4	61 (610)	60923-0552-61
31.5 – 32.4	32 (320)	60923-0523-32	61.5 – 62.4	62 (620)	60923-0553-62
32.5 – 33.4	33 (330)	60923-0524-33	62.5 – 63.4	63 (630)	60923-0554-63
33.5 – 34.4	34 (340)	60923-0525-34	63.5 – 64.4	64 (640)	60923-0555-64
34.5 – 35.4	35 (350)	60923-0526-35	64.5 – 65.4	65 (650)	60923-0556-65
35.5 – 36.4	36 (360)	60923-0527-36	65.5 – 66.4	66 (660)	60923-0557-66
36.5 – 37.4	37 (370)	60923-0528-37	66.5 – 67.4	67 (670)	60923-0558-67
37.5 – 38.4	38 (380)	60923-0529-38	67.5 – 68.4	68 (680)	60923-0559-68
38.5 – 39.4	39 (390)	60923-0530-39	68.5 – 69.4	69 (690)	60923-0560-69
The total number of vials in each kit corresponds to the dosing requirement for the individual patient, based on the patient's body weight. Each kit includes a specified number of Elevidys vials (with a minimum of 10 vials for a patient with 10.0 – 10.4 kg body weight range, and a maximum of 70 vials for a patient with body weight of 69.5 kg and above).					

VIII. References

1. Elevidys [package insert]. Cambridge, MA; Sarepta Therapeutics, Inc; August 2024.
2. Mendell JR, Muntoni F, McDonald CM, Mercuri EM, Ciafaloni E, Komaki H, et al. AAV gene therapy for Duchenne muscular dystrophy: the EMBARK phase 3 randomized trial. Nat Med. 2024. https://doi.org/10.1038/s41591-024-03304-z . (Published online October 9, 2024). - DOI - PubMed – PMC
3. ClinicalTrials.gov. A Gene Transfer Therapy Study to Evaluate the Safety of and Expression From SRP-9001 (Delandistrogene Moxeparvovec) in Participants With Duchenne MuscularDystrophy (DMD) (ENDEAVOR). ClinicalTrials.gov Identifier: NCT04626674, 2022 [October 31, 2022]; Available from https://clinicaltrials.gov/ct2/show/NCT04626674.
4. Mendell JR, Shieh PB, McDonald CM, Sahenk Z, Lehman KJ, Lowes LP, Reash NF, Iammarino MA, Alfano LN, Sabo B, Woods JD, Skura CL, Mao HC, Staudt LA, Griffin DA, Lewis S, Wang S, Potter RA, Singh T, Rodino-Klapac LR. Expression of SRP-9001 dystrophin and stabilization of motor function up to 2 years post-treatment with delandistrogene moxeparvovec gene therapy in individuals with Duchenne muscular dystrophy. Front Cell Dev Biol. 2023 Jul 11;11:1167762. doi: 10.3389/fcell.2023.1167762. PMID: 37497476; PMCID: PMC10366687.
5. FDA Expands Approval of Gene Therapy for Patients with Duchenne Muscular Dystrophy https://www.fda.gov/news-events/press-announcements/fda-expands-approval-gene-therapy-patients-duchenne-muscular-dystrophy
6. https://www.fda.gov/vaccines-blood-biologics/tissue-tissue-products/elevidys

Policy Implementation/Update:

Action and Summary of Changes	Date
Updated supporting evidence to include new information related to conversion to full approval and new indication in non-ambulatory patients	12/2024
Policy Created – Experimental/Investigational	09/2023