Harvard Pilgrim Health Care | TUFTS Health Plan

Medical Necessity Guidelines

Medical Benefit Drugs

Zolgensma® (onasemnogene abeparvovec)

Effective: August 1, 2026

Prior Authorization Required If REQUIRED, submit supporting clinical documentation pertinent to service request.	Yes ☒ No ☐

Applies to:

Commercial Products

☒ Harvard Pilgrim Health Care Commercial products; Fax 617-673-0988
☒ Tufts Health Plan Commercial products; Fax 617-673-0988

Public Plans Products

☒ Tufts Health Direct – A Massachusetts Qualified Health Plan (QHP) (a commercial product); Fax 617-673-0988
☐ Tufts Health Together – MassHealth MCO Plan Accountable Care Partnership Plans; Fax 617-673-0939
☒ Tufts Health RITogether – A Rhode Island Medicaid Plan; Fax 617-673-0939
☐ Tufts Health One Care – A dual-eligible product; Fax 617-673-0956

Senior Products

☐ Tufts Health Plan Senior Care Options (SCO), (a dual-eligible product); Fax 617-673-0956
☐ Tufts Medicare Preferred HMO, (a Medicare Advantage product); Fax 617-673-0956
☐ Tufts Medicare Preferred PPO, (a Medicare Advantage product); Fax 617-673-0956

Note: While you may not be the provider responsible for obtaining prior authorization, as a condition of payment you will need to ensure that prior authorization has been obtained.

Overview

Food and Drug Administration (FDA) Approved Indications:

Zolgensma (onasemnogene abeparvovec) is an adeno-associated virus vector-based gene therapy indicated for the treatment of pediatric patients with spinal muscular atrophy (SMA) with bi-allelic mutations in the survival motor neuron 1 (SMN1) gene. SMN1 gene mutation can be confirmed with newborn screening or genetic testing of symptomatic infants. Zolgensma is a one-time-only dose given intravenously (IV) over the course of 60 minutes. Per prescribing information, baseline clinical evaluation and testing of liver function and testing of platelet counts, and troponin-I levels should be performed prior to Zolgensma infusion and monitored for at least 3 months following infusion. Administer systemic corticosteroid to all patients before and after Zolgensma infusion.

Note: Authorization for administration will be valid for 6 months from the date of approval, not to exceed the date of the Member's second birthday. All criteria below must be met at time of infusion.

Clinical Guideline Coverage Criteria

The Plan will cover **one** dose of Zolgensma **per lifetime** for the treatment of presymptomatic and symptomatic spinal muscular atrophy (SMA) for Members when requested by a board-certified neurologist with special qualification in child neurology and the treatment of SMA and when documentation of **ALL** the following criteria are met:

1. Member is less than 2 years of age at time of infusion

AND

2. Member has SMA diagnosed by a board-certified neurologist with special qualification in child neurology and the treatment of SMA

AND

3. Genetic testing/newborn screening confirms biallelic mutations (chromosome 5q related deletion or point mutations) in the survival motor neuron 1 (SMN1) gene and at least 2 but no more than 3 copies of the SMN2 gene.[24,25]

AND

4. Pre-treatment testing confirms baseline anti-adeno-associated virus serotype 9 (anti-AAV9) antibody titers is ≤ 1:50 as determined by Enzyme-linked Immunosorbent Assay (ELISA) binding immunoassay.

AND

5. Documentation confirms that Member is not dependent on invasive ventilatory support or on non-invasive ventilator support (e.g., CPAP, BPAP) for greater than 16 hours/day.

AND

6. Documentation confirms that Member does not have advanced SMA (e.g., complete paralysis of limbs, permanent ventilator dependence).

AND

7. Documentation confirms Member has not received a previous SMA gene therapy.

AND

8. If the Member is currently receiving an alternative SMA therapy (e.g., Spinraza (nusinersen), Evrysdi (risdiplam), treatment must be discontinued prior to infusion of Zolgensma.

AND

9. The Member does not have **active** viral infection (e.g. respiratory, gastrointestinal, or chronic uncontrolled viral infection), including human immunodeficiency virus [HIV], hepatitis, or positive serology for hepatitis B or C, or Zika virus at the time of the infusion.

NOTE: The Plan considers coverage for additional indications (e.g., more than 3 copies of the SMN2 gene) not listed above as experimental, unproven, or investigational and therefore not medically necessary given the lack of scientific evidence to support that the treatment is effective in improving health outcomes for indications beyond those specified in this guideline.

Limitations

The Plan will not cover**:**

- Zolgensma infusion for the treatment of SMA type 0 or SMA type IV as the safety and efficacy for use in these conditions is unproven and considered investigational.
- Zolgensma infusion when genetic testing confirms more than 3[24,25] copies the SMN2 gene.
- Zolgensma infusion for premature neonates who have not reached full term gestational age.
- Repeat infusion of Zolgensma as the safety and effectiveness of repeat administration has not been evaluated and FDA approval has not been given. This includes previous infusion(s) administered as part of a clinical trial or administered when Member was covered under a different health plan.
- Combination treatment of Zolgensma with concomitant SMA modifying therapies (e.g. Spinraza, Evrysdi).

Clinical classification for SMA (Table adapted from RS Finkel et al, 2017, p.597)

SMA Type	Incidence by Type	Age of Onset	Highest Achieved Motor Function
0	<1%	Prenatal/fetal	None
I	58%	<6 months	Unable to sit or roll independently
II	29%	6–18 months	Able to sit but not walk independently
III	13%	>18 months	Able to walk, though may lose this ability over time
IV	<1%	Adult (20s-30s)	Mild walking (motor) difficulties

Codes

The following code(s) require prior authorization:

Table 1: HCPCS Codes

HCPCS Code	Description
J3399	Injection, onasemnogene abeparvovec-xioi, per treatment, up to 5x10

References:

1. U.S. Food and Drug Administration. FDA approves innovative gene therapy to treat pediatric patients with spinal muscular atrophy, a rare disease and leading genetic cause of infant mortality. May 2019. Available at fda.gov/news-

events/press announcements/fda approves-innovative-gene- therapy-treat-pediatric-patients-spinal-muscular-atrophy-rare-disease. Accessed May 31, 2019.
2. United States Food and Drug Administration. Package Insert-ZOLGENSMA® (onasemnogene abeparvovec-xioi). Available at fda.gov. May 2021.
3. Prior TW, Snyder PJ, Rink BD, et al. Newborn and carrier screening for spinal muscular atrophy. Am J Med Genet A. 2010 Jul;152A(7):1608-16.
4. Gene Transfer Clinical Trial for Spinal Muscular Atrophy Type 1. Available at clinicaltrials.gov. Accessed June 1, 2019.
5. Long-Term Follow-up Study for Patients From AVXS-101-CL-101 (START). Available at clinicaltrials.gov. Accessed June, 1, 2019.
6. Gene Replacement Therapy Clinical Trial for Patients With Spinal Muscular Atrophy Type 1 (STR1VE). Available at clinicaltrials.gov. Accessed June 1, 2019.
7. Pre-Symptomatic Study of Intravenous AVXS-101 in Spinal Muscular Atrophy (SMA) for Patients With Multiple Copies of SMN2 (SPR1NT). Available at clinicaltrials.gov. Accessed June 1, 2019.
8. Mendell JR, Al-Zaidy S, Shell R, et al. Single-dose gene-replacement therapy for spinal muscular atrophy. N Engl J Med. 2017; 377:1713-22.
9. Sumner C.J., Crawford C.O. Two breakthrough gene-targeted treatments for spinal muscular atrophy: challenges remain. J Clin Invest. 2018. Available at doi.org/10.1172/JCI121658. Accessed May 29, 2019.
10. Glascock J, Sampson J, Haidet-Phillips A, et al. Treatment algorithm for infants diagnosed with spinal muscular atrophy through newborn screening. Journal of Neuromuscular Diseases. 2018;5:145-158.
11. Institute for Clinical and Economic Review (ICER). Spinraza® and Zolgensma® for Spinal Muscular Atrophy: Effectiveness and Value. Final Evidence Report April 3, 2019 (Updated May 24, 2019). 2019. Available at: icer-review.org/wpcontent/ uploads/2018/07/ICER_SMA_Final_Evidence_Report_052419.pdf. Accessed May 29, 2019.
12. Finkel RS, McDermott MP, Kaufmann P, et al. Observational study of spinal muscular atrophy type I and implications for clinical trials. Neurology. 2014; 83(9):810-817.
13. Chien YH, Chiang SC, Weng WC, et al. Presymptomatic diagnosis of spinal muscular atrophy through newborn screening. J Pediatr 2017;190:e1.
14. Calucho M, Bernal S, Alias L, et al. Correlation between SMA type and SMN2 copy number revisited: an analysis of 625 unrelated Spanish patients and a compilation of 2834 reported cases. Neuromuscul Disord 2018;28:208–215.
15. High KA, MD, Roncarolo, MG, MD. Gene Therapy. N Engl J Med 2019;381:455-64.
16. Dangouloff T, Servais L. Clinical Evidence Supporting Early Treatment Of Patients With Spinal Muscular Atrophy: Current Perspectives. Therapeutics and Clinical Risk Management 2019:15 1153–1161.
17. Riessland M, Kaczmarek A, et. al. Neurocalcin Delta Suppression Protects against Spinal Muscular Atrophy in Humans and across Species by Restoring Impaired Endocytosis. Am J Hum Genet. 2017 Feb 2; 100(2): 297–315.
18. Saffari A, et.al. Novel challenges in spinal muscular atrophy – How to screen and whom to treat? Annals of Clinical and Translational Neurology 2019; 6(1): 197–205.
19. Serra-Juhe C, Tizzano EF. Perspectives in genetic counseling for spinal muscular atrophy in the new therapeutic era: early pre symptomatic intervention and test in minors. European Journal of Human Genetics accessed on January 9 2020 @ doi.org/10.1038/s41431-019-0415-4.
20. The genetics of 5q spinal muscular atrophy. Last accessed @ smauk.org.uk/the-genetics-of-5q- sma on April 8, 2020.
21. Tizzano E, Zafeirioyu D. Prenatal aspects in spinal muscular atrophy: From early detection to early presymptomatic intervention. Accessed on January 10, 2020 @ doi.org/10.1016/j.ejpn.2018.08.009.
22. Spinal Muscular Atrophy. UpToDate.com/login [via subscription only]. Published February 1, 2026. Accessed on March 20, 2026.
23. The genetics of 5q spinal muscular atrophy. Last accessed @ smauk.org.uk/the-genetics-of-5q- sma on April 8, 2020.
24. SMA Overview. https://smafoundation.org/about-sma/materials/. Accessed January 6, 2022.
25. Verhaart IEC, Robertson A, Wilson IJ, et al. Prevalence, incidence and carrier frequency of 5q- linked spinal muscular atrophy - a literature review. Orphanet J Rare Dis. 2017;12(1):124.
26. Saute JA, et. al. OFELIA Study Group. Safety and tolerability of onasemnogene abeparvovec for patients with spinal muscular atrophy weighing ≤17 kg and ≤24 months old from OFELIA, a phase 4, open-label, multicenter, non-randomised, interventional study. Lancet Reg Health Am. 2025 Jul 28;49:101193. doi: 10.1016/j.lana.2025.101193. PMID: 40778350; PMCID: PMC12329473.
27. Waldrop M, et. al Long-term follow-up of onasemnogene abeparvovec gene therapy for patients with spinal muscular atrophy type 1 from the START trial. Presented at: Muscular Dystrophy Association Clinical & Scientific Conference; March 16–19, 2025; Dallas, TX. Accessed March 20, 2026. https://www.mdaconference.org/abstract

Approval And Revision History

September 21, 2022: Reviewed by the Medical Policy Approval Committee (MPAC)

Subsequent endorsement date(s) and changes made:

- Originally approved at November 16, 2022 MPAC effective January 1, 2023
- Administrative update: September 2023 added Medical Benefit Drugs to title, updated MATogether and RITogether fax numbers to 617-673-0939
- August 16, 2023: Reviewed by MPAC, renewed without changes
- December 2023: Rebranded Unify to One Care effective January 1, 2024
- June 20, 2024: Reviewed by MPAC, renewed without changes, effective September 1, 2024
- August 30, 2024: Reviewed by MPAC, added criteria question #9 and the NOTE that The Plan considers coverage for additional indications including more than 3 copies of the SMN2 gene as experimental unless the appropriate supporting documentation is submitted, effective October 1, 2024.
- April 16, 2025: Reviewed by MPAC, RITogether added as an applicable product effective June 1, 2025.
- May 20, 2026: Reviewed by MPAC, renewed without changes, references updated, effective July 1, 2026.
- June 17, 2026: Reviewed by MPAC, revised criteria #7 to read not received a previous SMA gene therapy. Effective date August 1, 2026.

Background, Product and Disclaimer Information

Medical Necessity Guidelines are developed to determine coverage for benefits and are published to provide a better understanding of the basis upon which coverage decisions are made. We make coverage decisions using these guidelines, along with the Member's benefit document, and in coordination with the Member's physician(s) on a case-by-case basis considering the individual Member's health care needs.

Medical Necessity Guidelines are developed for selected therapeutic or diagnostic services found to be safe and proven effective in a limited, defined population of patients or clinical circumstances. They include concise clinical coverage criteria based on current literature review, consultation with practicing physicians in our service area who are medical experts in the particular field, FDA and other government agency policies, and standards adopted by national accreditation organizations. We revise and update Medical Necessity Guidelines annually, or more frequently if new evidence becomes available that suggests needed revisions.

For self-insured plans, coverage may vary depending on the terms of the benefit document. If a discrepancy exists between a Medical Necessity Guideline and a self-insured Member's benefit document, the provisions of the benefit document will govern. For Tufts Health Together (Medicaid), coverage may be available beyond these guidelines for pediatric members under age 21 under the Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefits of the plan in accordance with 130 CMR 450.140 and 130 CMR 447.000, and with prior authorization.

Treating providers are solely responsible for the medical advice and treatment of Members. The use of this guideline is not a guarantee of payment or a final prediction of how specific claim(s) will be adjudicated. Claims payment is subject to eligibility and benefits on the date of service, coordination of benefits, referral/authorization, utilization management guidelines when applicable, and adherence to plan policies, plan procedures, and claims editing logic.