Medical Policy

BlueCross BlueShield Kansas
An Independent licensee of the Blue Cross Blue Shield Association

Title: Zolgensma Medical Drug Criteria

Professional / Institutional
Original Effective Date: August 25, 2022
Latest Review Date: July 23, 2026
Current Effective Date: July 23, 2026

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.

POLICY AGENT SUMMARY – MEDICAL PRIOR AUTHORIZATION

Indication	Dose
Spinal Muscular Atrophy	**Preparing for Administration:** • One day prior to Zolgensma infusion, begin administration of systemic corticosteroids equivalent to oral prednisolone at 1 mg/kg of body weight per day for a total of 30 days **Zolgensma Infusion:** • Administer as a single-dose intravenous infusion through a venous catheter • Administer as a slow infusion over 60 minutes • The recommended dose of Zolgensma is 1.1×10^{14} vector genomes per kilogram (vg/kg) of body weight

Indication	Dose
NOTE: • Zolgensma is shipped and delivered frozen at ≤ -60 °C (-76°F). Upon receipt, immediately place in a refrigerator at 2°C to 8°C (36°F to 46°F). Thaw prior to infusion. DO NOT RE-FREEZE. Must be used within 14 days of receipt. • Zolgensma is an adeno-associated virus vector-based gene therapy. Follow precautions for viral vector shedding for one month after the infusion.	

PRIOR AUTHORIZATION CLINICAL CRITERIA FOR APPROVAL

I. Length of Authorization

- Initial: Prior authorization validity will be provided initially for one dose
- Renewal: Prior authorization validity may NOT be renewed.

II. Dosing Limits

Max Units (per dose and over time) [HCPCS Unit]:

- 1 billable unit (1 treatment of up to $5x10^{15}$ vector genomes)

III. Initial Approval Criteria

Submission of supporting clinical documentation (including but not limited to medical records, chart notes, lab results, and confirmatory diagnostics) related to the medical necessity criteria is REQUIRED on all requests for authorizations. Records will be reviewed at the time of submission as part of the evaluation of this request. Please provide documentation related to diagnosis, step therapy, and clinical markers (i.e., genetic, and mutational testing) supporting initiation when applicable. Please provide documentation via direct upload through the PA web portal or by fax. Failure to submit the medical records may result in the denial of the request due to inability to establish medical necessity in accordance with policy guidelines.

Prior authorization validity is provided in the following conditions:

Spinal Muscular Atrophy (SMA) † Φ [1-12]

- Patient must be less than 2 years of age; **AND**
- Patient has a diagnosis of 5q spinal muscular atrophy confirmed by either bi-allelic deletion or dysfunctional point mutation of the *SMN1* gene(survival motor neuron 1); **AND**
- Patient must have a diagnosis of SMA phenotype 1 or 2; **AND**

- Patient has <= 3 copies of the SMN2 gene (Note: Patients with >3 copies of the SMN2 gene will be reviewed on a case-by-case basis); **AND**
- Patient must have a baseline anti-AAV9 antibody titer of ≤ 1:50 measured using an enzyme-linked immunosorbent assay(by ELISA); **AND**
- Patient is clinically stable in their overall baseline health status (e.g., hydration and nutritional status, respiratory status, etc.) prior to administration; **AND**
- Patient does not have an active infection, including clinically important localized infections; **AND**
- Baseline liver function will be assessed prior to initiating therapy and will continue to be monitored for at least 3 months after therapy; and at other times as clinically indicated; **AND**
- Baseline platelet counts will be assessed prior to initiating therapy and will continue to be monitored on a regular basis (i.e., at least weekly for the first month and as clinically indicated until platelet counts return to baseline);**AND**
- Patient is up to date with all vaccinations (including seasonal prophylaxis against respiratory syncytial virus (RSV), in accordance with current vaccination guidelines, prior to initiating therapy; **AND**
- Used concomitantly with systemic corticosteroids (see dosage/administration below); **AND**
- Patient will be considered for cardiac evaluation based on clinical presentation; **AND**
- Patient does not have advanced disease (e.g., complete limb paralysis, permanent ventilation support, etc.); **AND**
- Patient must not have previously received treatment with SMA gene therapy (e.g., onasemnogene abeparvovec-xioi, etc.); **AND**
- Will not be used in combination with other agents for SMA (e.g., nusinersen, risdiplam, etc.)

† FDA Approved Indication(s); ǂ Compendia Recommended Indication(s); **Φ** Orphan Drug

IV. Renewal Criteria [1]

- Duration of authorization has not been exceeded (refer to Section I)

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.

CLINICAL RATIONALE

See package insert for FDA preshttps://dailymed.nlm.nih.gov/dailymed/index.cfm

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.

HCPCS code:

- J3399 – Injection, onasemnogene abeparvovec-xioi, per treatment, up to $5x10^{15}$ vector genomes; 1 billable unit = 1 treatment, up to $5x10^{15}$ vector genomes

NDC(s):

Zolgensma kits:

Patient Weight (kg)	NDC	Patient Weight (kg)	NDC
2.6 – 3.0	71894-0120-xx	12.1 – 12.5	71894-0139-xx
3.1 – 3.5	71894-0121-xx	12.6 – 13.0	71894-0140-xx
3.6 – 4.0	71894-0122-xx	13.1 – 13.5	71894-0141-xx
4.1 – 4.5	71894-0123-xx	13.6 – 14.0	71894-0142-xx
4.6 – 5.0	71894-0124-xx	14.1 – 14.5	71894-0143-xx
5.1 – 5.5	71894-0125-xx	14.6 – 15.0	71894-0144-xx
5.6 – 6.0	71894-0126-xx	15.1 – 15.5	71894-0145-xx
6.1 – 6.5	71894-0127-xx	15.6 – 16.0	71894-0146-xx
6.6 – 7.0	71894-0128-xx	16.1 – 16.5	71894-0147-xx
7.1 – 7.5	71894-0129-xx	16.6 – 17.0	71894-0148-xx
7.6 – 8.0	71894-0130-xx	17.1 – 17.5	71894-0149-xx
8.1 – 8.5	71894-0131-xx	17.6 – 18.0	71894-0150-xx
8.6 – 9.0	71894-0132-xx	18.1 – 18.5	71894-0151-xx
9.1 – 9.5	71894-0133-xx	18.6 – 19.0	71894-0152-xx
9.6 – 10.0	71894-0134-xx	19.1 – 19.5	71894-0153-xx
10.1 – 10.5	71894-0135-xx	19.6 – 20.0	71894-0154-xx
10.6 – 11.0	71894-0136-xx	20.1 – 20.5	71894-0155-xx
11.1 – 11.5	71894-0137-xx	20.6 – 21.0	71894-0156-xx
11.6 – 12.0	71894-0138-xx		

REVISIONS	
08-25-2022	Policy added to the bcbsks.com web site.
10-13-2022	Updated Policy Section

REVISIONS	
	▪ Added to Section A and A1 Onasemnogene Abeparvovec-Xioi: "(High-Control)" ▪ Added Section Ae: "Documentation of baseline laboratory assessments such as AST, ALT, total bilirubin, and prothrombin time." ▪ Added Section B: "Onasemnogene Abeparvovec-Xioi (Low-Control)" 1. Onasemnogene abeparvovec-xioi (Low-Control) may be considered medically necessary if ALL of the following conditions are met: a. Diagnosis of spinal muscular atrophy confirmed by genetic testing demonstrating bi-allelic mutations in the survival motor neuron 1 (SMN1) gene as stated below I. deletion of both copies of the SMN1 gene OR II. compound heterozygous mutations of the SMN1 gene (defined below): i. pathogenic variant(s) in both copies of the SMN1 gene ii. pathogenic variant in 1 copy and deletion of the second copy of the SMN1 gene. AND b. Documentation of signs and symptoms consistent with a clinical diagnosis of spinal muscular atrophy. AND c. Documentation of a genetic test confirms no more than 3 copies of the SMN2 gene. AND d. The patient is less than 2 years of age at the time of infusion of onasemnogene abeparvovec-xioi. AND e. Documentation of baseline laboratory assessments such as AST, ALT, total bilirubin, and prothrombin time. AND f. The patient does not have advanced spinal muscular atrophy (e.g., complete paralysis of limbs, permanent ventilator dependence). AND g. Baseline anti-adeno-associated virus serotype 9 (AAV9) antibody titers < 1:50. AND h. Prescribed by a neurologist with expertise in treating spinal muscular atrophy. 2. Repeat treatment or ante-partum use of onasemnogene abeparvovec-xioi is considered experimental / investigational. 3. Onasemnogene abeparvovec-xioi is considered experimental /investigational for all other indications. 4. Concurrent use of onasemnogene abeparvovec-xioi with nusinersen and/or risdiplam is considered experimental / investigational. 5. Use of nusinersen and/or risdiplam after administration of onasemnogene abeparvovec-xioi is considered experimental / investigational.
	Updated Policy Guideline Section ▪ Added: Dosing Limits A. 1 injection per lifetime
02-09-2023	Updated Policy Section ▪ Removed Section A Onasemnogene Abeparvovec-Xioi (High-Control) A. Onasemnogene Abeparvovec-Xioi (High-Control) 1. Onasemnogene abeparvovec-xioi (High-Control) may be considered medically necessary if ALL of the following conditions are met: a. Diagnosis of spinal muscular atrophy confirmed by genetic testing demonstrating bi-allelic mutations in the survival motor neuron 1 (*SMN1*) gene as stated below I. deletion of both copies of the *SMN1* gene OR II. compound heterozygous mutations of the *SMN1* gene (defined below): i. pathogenic variant(s) in both copies of the *SMN1* gene

REVISIONS	
	ii. pathogenic variant in 1 copy and deletion of the second copy of the *SMN1* gene. AND b. Documentation of onset of symptoms consistent with a clinical diagnosis of type I spinal muscular atrophy less than 6 months of age. AND c. Documentation of a genetic test confirms no more than 2 copies of the SMN2 gene. AND d. The individual is less than 6 months of age at the time of infusion of onasemnogene abeparvovec-xioi. AND e. Documentation of baseline laboratory assessments such as AST, ALT, total bilirubin, and prothrombin time. AND f. The individual does not have advanced spinal muscular atrophy (e.g., complete paralysis of limbs, permanent ventilator dependence). AND g. Baseline anti-adeno-associated virus serotype 9 (AAV9) antibody titers < 1:50. AND h. Prescribed by a neurologist with expertise in treating spinal muscular atrophy. 2. Repeat treatment or ante-partum use of onasemnogene abeparvovec-xioi is considered experimental/investigational. 3. Onasemnogene abeparvovec-xioi is considered experimental/investigational for all other indications. 4. Concurrent use of onasemnogene abeparvovec-xioi with nusinersen and/or risdiplam is considered experimental/investigational. 5. Use of nusinersen and/or risdiplam after administration of onasemnogene abeparvovec-xioi is considered experimental / investigational. ▪ Section B (new A) Onasemnogene Abeparvovec-Xioi (Low-Control) • Added A1a "Diagnosis of spinal muscular atrophy based on the results of SMA newborn screening" • Removed A1c "Documentation of signs and symptoms consistent with a clinical diagnosis of spinal muscular atrophy."
09-21-2023	Adopted Prime Therapeutics Zolgensma policy. Policy now maintained by Prime Therapeutics LLC.
06-27-2024	Policy was reviewed by Prime Therapeutics LLC with no updates.
04-08-2025	Updated PRIOR AUTHORIZATION CLINICAL CRITERIA FOR APPROVAL Section: • Standardization of criteria per template: 1) Update of "approved" to "labeled", 2) Removing "information has been provided" or "prescriber has provided information" to "there is support" • Removed documentation requirement for SMN2 copy confirmation
	Policy maintained by Prime Therapeutics LLC.
Posted: 12-9-2025 Effective: 01-08-2026	Updated Clinical Rationale Section
	Updated Prior Authorization Clinical Criteria for Approval ▪ Removed: Target Agent(s) will be approved when ALL of the following are met: 1. The patient has a diagnosis of spinal muscular atrophy (SMA) AND

REVISIONS	
	2. The patient has bi-allelic mutations in the survival motor neuron 1 (SMN1) gene as confirmed by genetic testing (medical records required) AND 3. The patient has 4 or fewer copies of the SMN2 gene AND 4. If the patient has an FDA labeled indication, then ONE of the following: A. The patient's age is within FDA labeling for the requested indication for the requested agent OR B. There is support for using the requested agent for the patient's age for the requested indication AND 5. The patient has baseline anti-AAV9 antibody titers of less than or equal to 1:50 AND 6. The patient's pre-treatment liver function has been assessed by clinical examination and laboratory testing (e.g., hepatic aminotransferases [aspartate aminotransferase (AST) and alanine aminotransferase (ALT)], total bilirubin, and prothrombin time) AND 7. The patient will have their liver function monitored for at least 3 months after infusion AND 8. The patient has been assessed for concurrent infections and no clinical signs or symptoms of infection are evident AND 9. Pre-infusion blood work, including creatinine, complete blood count (including hemoglobin and platelet count) and troponin-I, has been completed AND 10. The prescriber is a specialist in the area of the patient's diagnosis (e.g., neurologist, geneticist) or the prescriber has consulted with a specialist in the area of the patient's diagnosis AND 11. The patient will receive systemic corticosteroids before and after Zolgensma (onasemnogene abeparvovec-xioi) infusion AND 12. The patient has NOT previously been administered Zolgensma (onasemnogene abeparvovec-xioi) AND 13. The patient does NOT have advanced SMA (e.g., complete paralysis of limbs, permanent ventilator dependence [defined as invasive ventilation (tracheostomy), or respiratory assistance for 16 or more hours per day (including noninvasive ventilatory support) continuously for 14 or more days in absence of an acute reversible illness, excluding perioperative ventilation]) AND 14. The patient will NOT receive the requested agent in combination with SPINRAZA (nusinersen) or Evrysdi (risdiplam) for the requested indication AND 15. The patient does NOT have any FDA labeled contraindications to the requested agent AND 16. The requested dose is within FDA labeled dosing for the requested indication Length of Approval: Once per lifetime ▪ Added: Initial Approval Criteria Submission of medical records (chart notes) related to the medical necessity criteria is REQUIRED on all requests for authorizations. Records will be reviewed at the time of submission. Please provide documentation related to diagnosis, step therapy, and clinical markers (i.e. genetic and mutational testing) supporting initiation when applicable. Please provide documentation via direct upload through the PA web portal or by fax. Coverage is provided in the following conditions: Spinal Muscular Atrophy (SMA) † Φ [1-11] • Patient must be less than 2 years of age; AND

REVISIONS	

	• Patient has a diagnosis of 5q spinal muscular atrophy confirmed by either bi-allelic deletion or dysfunctional point mutation of the *SMN1* gene; AND
	• One of the following:
	  ○ Diagnosis of symptomatic SMA by a neurologist with expertise in the diagnosis of SMA; OR
	  ○ Both of the following:
	  ▪ Diagnosis of SMA based on the results of SMA newborn screening; AND
	  ▪ Submission of medical records (e.g., chart notes, laboratory values) confirming that patient has 4 copies or less of SMN2 gene; AND
	• Patient must have a baseline anti-AAV9 antibody titer of ≤ 1:50 measured by ELISA; AND
	• Baseline liver function will be assessed prior to initiating therapy and will continue to be monitored for at least 3 months after therapy; AND
	• Used concomitantly with systemic corticosteroids (see dosage/administration below); AND
	• Patient does not have advanced disease (complete limb paralysis, permanent ventilation support, etc.); AND
	• Patient must not have previously received treatment with SMA gene therapy (e.g., onasemnogene abeparvovec-xioi, etc.); AND
	• Will not be used in combination with other agents for SMA (e.g., nusinersen, risdiplam, etc.)
	† FDA Approved Indication(s); ‡ Compendia Recommended Indication(s); Φ Orphan Drug
	V. Renewal Criteria [1]
	• Duration of authorization has not been exceeded (refer to Section I)

	Policy Maintained by Prime Therapeutics LLC
Posted: 06-23-2026 Effective: 07-23-2026	Policy Agent Summary: • Removed under Note: For single-dose intravenous infusion only. Length of Authorization: • Added: "Initial: Prior authorization validity will be provided initially for one dose" and "Renewal: Prior authorization validity may NOT be renewed" • Removed: "Coverage will be provided for one dose and may not be renewed." Initial Approval Criteria updates: • Added: Submission of supporting clinical documentation (including but not limited to medical records, chart notes, lab results, and confirmatory diagnostics) related to the medical necessity criteria is REQUIRED on all requests for authorizations. Records will be reviewed at the time of submission as part of the evaluation of this request. Please provide documentation related to diagnosis, step therapy, and clinical markers (i.e., genetic, and mutational testing) supporting initiation when applicable. Please provide documentation via direct upload through the PA web portal or by fax. Failure to submit the medical records may result in the denial of the request due to inability to establish medical necessity in accordance with policy guidelines • Removed: Submission of medical records (chart notes) related to the medical necessity criteria is REQUIRED on all requests for authorizations. Records will be reviewed at the time of submission. Please provide documentation related to diagnosis, step therapy, and clinical markers (i.e. genetic and mutational testing) supporting initiation when applicable. Please provide documentation via direct upload through the PA web portal or by fax. • Changed 'Coverage' to 'Prior Authorization Validity'

REVISIONS	
	Spinal Muscular Atrophy (SMA) • Added: ○ (survival motor neuron 1) ○ Patient must have a diagnosis of SMA phenotype 1 or 2; AND ○ Patient has <= 3 copies of the SMN2 gene (Note: Patients with >3 copies of the SMN2 gene will be reviewed on a case-by-case basis); AND ○ using an enzyme-linked immunosorbent assay(by ELISA); AND ○ Patient is clinically stable in their overall baseline health status (e.g., hydration and nutritional status, respiratory status, etc.) prior to administration; AND ○ Patient does not have an active infection, including clinically important localized infections; AND ○ and at other times as clinically indicated ○ Baseline platelet counts will be assessed prior to initiating therapy and will continue to be monitored on a regular basis (i.e., at least weekly for the first month and as clinically indicated until platelet counts return to baseline);AND ○ Patient is up to date with all vaccinations (including seasonal prophylaxis against respiratory syncytial virus (RSV), in accordance with current vaccination guidelines, prior to initiating therapy; AND ○ Patient will be considered for cardiac evaluation based on clinical presentation; AND • Removed: ○ One of the following: ▪ Diagnosis of symptomatic SMA by a neurologist with expertise in the diagnosis of SMA; OR ▪ Both of the following: ▪ Diagnosis of SMA based on the results of SMA newborn screening; AND ▪ Submission of medical records (e.g., chart notes, laboratory values) confirming that patient has 4 copies or less of SMN2 gene; AND Updated Reference Section
	Policy is maintained by Prime Therapeutics LLC.

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