

Zolgensma® (onasemnogene abeparvovec-xioi)

When requesting Zolgensma® (onasemnogene abeparvovec-xioi), the individual requiring treatment must be diagnosed with an FDA-approved indication and meet the specific coverage guidelines and applicable safety criteria for the covered indication.

FDA-approved Indication

Zolgensma is an adeno-associated virus vector-based gene therapy indicated for the treatment of pediatric patients less than 2 years of age with spinal muscular atrophy (SMA) with bi-allelic mutations in the *survival motor neuron 1 (SMN1)* gene.

Coverage Guidelines

Treatment of spinal muscular atrophy (SMA)

An individual must meet **all** of the following criteria for approval:

- Has had a genetic test confirming the diagnosis of SMA with bi-allelic mutations in the *survival motor neuron 1 (SMN1)* gene reported as at least one of the following: homozygous deletion, homozygous mutation, or compound heterozygous mutation;
- Is less than 2 years of age;
- If the individual is a premature neonate, full term gestational age of 39 weeks and 0 days has been met;
- Meets one of the following:
 - Has three or less *survival motor neuron 2 (SMN2)* gene copies; OR
 - Has four *survival motor neuron 2 (SMN2)* gene copies determined by a quantitative assay capable of distinguishing between four *SMN2* gene copies and five or greater *SMN2* gene copies;
- Has baseline anti-AAV9 antibody titers of $\leq 1:50$;
- Has not received Zolgensma in the past;
- For a patient currently receiving or who has received prior treatment with Spinraza (nusinersen injection for intrathecal use), further therapy with Spinraza will be discontinued;
- For a patient currently receiving or who has received prior treatment with Evrysdi (risdiplam oral solution), further therapy with Evrysdi will be discontinued;
- Will be receiving systemic corticosteroids equivalent to oral prednisolone at a dose of 1 mg/kg per day starting 1 day prior to Zolgensma infusion and for a total of 30 days;
- The following laboratory tests will be evaluated prior to Zolgensma administration: baseline liver function tests, creatinine, complete blood count including hemoglobin and platelet counts, and Troponin-I levels; AND
- Zolgensma is prescribed by or in consultation with a physician who specializes in the management of spinal muscular atrophy and/or neuromuscular disorders.

Approval duration: one dose (lifetime) Dosing Recommendation

Zolgensma is for single-dose intravenous infusion only.

The recommended dose is 1.1×10^{14} vector genomes per kilogram (vg/kg) of body weight.

References

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7. Spinraza® intrathecal injection [prescribing information]. Cambridge, MA: Biogen; June 2020.
8. Evrysdi® oral solution [prescribing information]. South San Francisco, CA; Genentech; April 2021.
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13. Glascock J, Sampson J, Haidet-Phillips A, et al. Treatment algorithm for infants diagnosed with spinal muscular atrophy through newborn screening. *J Neuromuscular Dis.* 2018;5:145-158.
14. Glascock J, Sampson J, Connolly AM, et al. Revised recommendations for the treatment of infants diagnosed with spinal muscular atrophy via newborn screening who have 4 copies of SMN2. *J Neuromuscul Dis.* 2020;7(2):97-100.
15. Mercuri E, Muntoni F, Baranello G, et al. Onasemnogene abeparvovec gene therapy for symptomatic infantile-onset spinal muscular atrophy type 2 (STR1VE-EU): an open-label, single-arm, multicenter, phase 3 trial. *Lancet Neurol.* 2021;20:832-841.