Blue Cross Blue Shield Blue Care Network of Michigan

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Medical benefit drug policies are a source for BCBSM and BCN medical policy information only. These documents are not to be used to determine benefits or reimbursement. Please reference the appropriate certificate or contract for benefit information. This policy may be updated and therefore subject to change.

Effective Date: 06/08/2023

Zolgensma® (onasemnogene abeparvovec)

HCPCS: J3399

Policy:

Requests must be supported by submission of chart notes and patient specific documentation.

A. Coverage of the requested drug is provided when all the following are met:
   a. FDA approved age
   b. Prescribed by or in consultation with a neurologist or neuromuscular specialist with expertise in treating spinal muscle atrophy
   c. Diagnosis of spinal muscle atrophy with genetically-confirmed double-deletion of SMN1 gene and less than or equal to four copies of the SMN2 gene
   d. Must not have antibodies against the viral vector, AAV9, > 1:50
   e. Must receive oral corticosteroids daily starting at least 24 hours prior to therapy and continuing 30 days after therapy with Zolgensma
   f. The patient does not have advanced SMA (for example: complete paralysis of limbs, permanent ventilator dependence)
   g. Must not be getting treatment with Spinraza® or Evrysdi™
   h. The requesting physician attests to providing clinical outcome information within the Audaire Health™ provider portal as requested by BCBSM
   i. Trial and failure, contraindication, OR intolerance to the preferred drugs as listed in BCBSM/BCN's utilization management medical drug list

B. Quantity Limitations, Authorization Period and Renewal Criteria
   a. Quantity Limit: FDA approved dosing with 1 dose per lifetime
   b. Authorization Period: 3 months
   c. Renewal Criteria: Not applicable as no further authorization will be provided.

***Note: Coverage may differ for Medicare Part B members based on any applicable criteria outlined in Local Coverage Determinations (LCD) or National Coverage Determinations (NCD) as determined by Center for Medicare and Medicaid Services (CMS). See the CMS website at http://www.cms.hhs.gov/. Determination of coverage of Part B drugs is based on medically accepted indications which have supported citations included or approved for inclusion determined by CMS approved compendia.

Background Information:

- Zolgensma is an AAV9 that works by replacing the missing or defective SMN1 gene with a functional copy that makes SMN protein and is indicated for the treatment of pediatric patients less than 2 years of age with SMA with bi-allelic mutations in the SMN1 gene.

- SMA is a severe, inherited progressive neuromuscular disease that causes devastating muscle atrophy and disease-related complications in approximately 4 to 10 per 100,000 live births. SMA is caused by a mutation in the SMN1 gene that results in a deficiency of SMN protein. People have a "backup" copy of this gene called SMN2 that produces low levels of SMN protein. SMA varies in severity with four different types that inversely correlates to the number of SMN2 copies a person has. The type of SMA a person has is based on function and age of onset. Type 1 is the most severe type of SMA and the most common, affecting 6 out of every 10 children with SMA. Those with Type 1 have the fewest number of SMN2 copies (usually 2 or fewer). Type 1 patients have an age of onset usually between 0-6 months, and as the natural history of those with Type 1 SMA progresses the children will never be able to sit unsupported. Untreated life expectancy of Type 1 patients is less than 2 years old. Type 2 patients usually present around 7-18 months of age and will have the ability to sit, but never stand. The majority of SMA Type 2 patients have 3 copies of SMN2. Type 3 SMA patients present after 18 months of age and usually are able to stand and walk. About 51% of the patients with SMA Type 3 have 3 copies of SMN2 while 46% have 4 copies of SMN2. Although there is an inverse correlation between severity of disease and number of SMN2 copies, diagnoses of type is not solely based on number of SMN2 copies.

- The diagnosis of SMA is based on molecular genetic testing. Genetic testing of SMN1/SMN2 is highly reliable and it is first line investigation when the condition is suspected in a typical case. In approximately 96% of patients, SMA is caused by homozygous absence of exons 7 and 8 of the SMN1 gene, or, in some cases, only of exon 7.

- SMA patients' motor function and ability are monitored in a variety of ways, including but not limited to Bayley Scales of Infant and Toddler development (BSID), Motor Function Measure 32 (MFM-32), Hammersmith Infant Neurological Exam (HINE), Hammersmith Functional Motor Scale Expanded (HFMSE), Revised Upper Limb Module (RULM) Test (non-ambulatory patients), Six-Minute Walk Test (6MWT) (ambulatory patients only) and Children's Hospital of Philadelphia Infant Test of Neuromuscular Disorders (CHOP INTEND).

- There is currently no data supporting co-administration of Zolgensma with other SMA therapies, or in patients with advanced SMA (e.g., complete paralysis of limbs, permanent ventilator dependence).

- CureSMA developed a treatment algorithm published in 2018. In September 2019, the working group reconvened to update its stance on infants with 4 copies of SMN2 on newborn screening. The working group has updated their stance and recommends immediate treatment for infants diagnosed with SMA via newborn screening with 4 copies of SMN2. Zolgensma's pivotal STR1VE trial included patients with SMA Type 1 who had 2 copies of SMN2. Zolgensma's SPR1NT trial, an ongoing Phase III, open-label, single-arm, multi-center trial in presymptomatic patients is being studied in patients with either 2 or 3 copies of SMN2, and included one patient with four copies of SMN2. The RESTORE registry is an ongoing, prospective, multicenter, multinational, non-interventional observation study that is evaluating long-term outcomes in patients with SMA. This study included 4 patients with 4 copies of SMN2 and 5 patients with 4+ copies of SMN2 who received Zolgensma. The CHOP INTEND scores showed improvement from baseline in this subset of patients.

- In the clinical trials patients were required to have baseline anti-AAV9 antibody titers of ≤ 1:50, measured using an enzyme-linked immunosorbent assay (ELISA). Evidence of prior exposure to AAV9 was uncommon. The safety and efficacy of Zolgensma in patients with anti-AAV9 antibody titers above 1:50 have not been evaluated. Antibodies titers above 1:50 may inhibit the efficacy of gene therapy.

- Zolgensma can increase liver enzyme levels and cause acute serious liver injury. Oral corticosteroid medication should be given one day before and for 30 days after infusion with Zolgensma to avoid liver injury.

- The Audaire Health™ platform is a provider portal that is used to capture clinical outcome information for patients on select high-cost treatments, such as gene and cellular therapies. If a patient meets medical necessity as defined by this policy and is approved for treatment, the requesting physician must attest to providing clinical outcome information within the Audaire Health™ provider portal at the requested cadence.

References:

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13. Glascock J, Sapmson 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. DOI: 10.3233/JND-190468. Journal: Journal of Neuromuscular Diseases, vol. 7, no. 2, pp. 97-100, 2020 Published: 20 March 2020
14. Pre-symptomatic study of intravenous onasemnogene abeparvovec-xioi in spinal muscular atrophy (SMA) for patients with multiple copies of SMN2 (SPR1NT). ClinicalTrials.gov. U.S. National Library of Medicine. ClinicalTrials.gov Identifier: NCT03505099

<table>
<tr><th colspan="3">Policy History</th></tr>
<tr><th>#</th><th>Date</th><th>Change Description</th></tr>
<tr><td>1.9</td><td>Effective Date: 06/08/2023</td><td>Annual review of criteria was performed, no changes were made</td></tr>
<tr><td>1.8</td><td>Effective Date: 06/09/2022</td><td>Updated criteria to allow for Zolgensma use in those with 4 or fewer copies of SMN2 to align with CureSMA guidelines</td></tr>
<tr><td>1.7</td><td>Effective Date: 04/14/2022</td><td>Update to include Audaire Health™ requirements</td></tr>
<tr><td>1.6</td><td>Effective Date: 04/08/2021</td><td>This policy replaces previously approved criteria that was embedded in a drug review which will be retired.</td></tr>
<tr><td>1.5</td><td>Effective Date: 08/13/2020</td><td>Annual review of criteria was performed, no changes were made.</td></tr>
<tr><td>1.4</td><td>Effective Date: 02/03/2020</td><td>UM medical management system update for MAPPO and BCNA
<table><tr><th>Line of Business</th><th>PA Required in Medical Management System (Yes/No)</th></tr><tr><td>BCBS</td><td>Yes</td></tr><tr><td>BCN</td><td>Yes</td></tr><tr><td>MAPPO</td><td>Yes</td></tr><tr><td>BCNA</td><td>Yes</td></tr></table></td></tr>
<tr><td>1.3</td><td>Effective Date: 08/15/2019</td><td>New full drug review</td></tr>
<tr><td>1.2</td><td>Effective Date: 08/01/2019</td><td>UM medical management system update for BCBSM
<table><tr><th>Line of Business</th><th>PA Required in Medical Management System (Yes/No)</th></tr><tr><td>BCBS</td><td>Yes</td></tr><tr><td>BCN</td><td>Yes</td></tr><tr><td>MAPPO</td><td>TBD</td></tr><tr><td>BCNA</td><td>TBD</td></tr></table></td></tr>
<tr><td>1.1</td><td>Effective Date: 06/01/2019</td><td>UM medical management system update for BCN
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<tr><td>1.0</td><td>Effective Date: 02/14/2019</td><td>New Policy
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** The prescribing information for a drug is subject to change. To ensure you are reading the most current information it is advised that you reference the most updated prescribing information by visiting the drug or manufacturer website or http://dailymed.nlm.nih.gov/dailymed/index.cfm.*