VENTURA COUNTY
HEALTH CARE PLAN

PRIOR AUTHORIZATION POLICY

POLICY: Spinal Muscular Atrophy – Evrysdi Prior Authorization Policy
- Evrysdi® (risdiplam oral solution – Genentech/Roche)

REVIEW DATE: 09/08/2021; selected revision 09/29/2021, 01/26/2022, and 06/08/2022

OVERVIEW

Evrysdi, a survival motor neuron (SMN)2 splicing modifier, is indicated for the **treatment of spinal muscular atrophy** in pediatric and adult patients.[1] The recommended dosing is as follows:
- 0.15 mg/kg for patients less than 2 months of age.
- 0.2 mg/kg once daily (QD) for patients 2 months to < 2 years of age.
- 0.25 mg/kg QD for patients ≥ 2 years of age and < 20 kg.
- 5 mg for patients ≥ 2 years of age and ≥ 20 kg.

Disease Overview

Spinal muscular atrophy is a genetic, autosomal recessive muscular disorder caused by deletion or loss of function mutation in the SMN1 gene.[2-5] The reduced level of SMN protein causes degeneration of lower motor neurons.[5] The phenotypic expression of the disease is impacted by the SMN2 gene copy number. Data have shown that patients with a higher number of SMN2 copies generally have a more mild phenotypic disease expression. Gene deletion testing for spinal muscular atrophy can be performed at many diagnostic laboratories. Table 1 describes disease types. Of note, various motor ability assessments are used in clinical practice to characterize functional impairment in spinal muscular atrophy. When motor neuron function is lost, it cannot be regained, which greatly impacts patients who have experienced progression (e.g., patients with complete paralysis of limbs or permanent ventilator dependence).

Table 1. Types of Spinal Muscular Atrophy.[2-5]

SMA Type	Age at Onset	Features/Clinical Presentation	Lifespan	SMN2 Gene Copy Number
0	Prenatal	Severe hypotonia and weakness; respiratory failure at birth. There is no achievement of motor milestones.	A few weeks to < 6 months	0 to 1
1	< 6 months	Poor muscle tone, lack of movement, and respiratory assistance needed at birth. Patients are never able to sit.	< 2 years	1 to 2
2	Before 18 months	Patients are able to sit. However, patients are unable to walk or stand without assistance.	75% of patients are alive at 25 years of age	2 to 3
3	> 18 months	Walk independently but may lose this ability as the disease progresses.	Normal	3 to 4
4	Adulthood	Walk until adulthood.	Normal	≥ 4

SMA – Spinal muscular atrophy; SMN2 – Survival motor neuron 2.

Besides Evrysdi, other therapies are available. **Spinraza®** (nusinersen intrathecal injection), a SMN2-directed antisense oligonucleotide, is indicated for the treatment of spinal muscular atrophy in pediatric patients and adults.[6] Although studies and experience continue, the primary pivotal data include infantile-onset (Type 1) and later-onset (Type 2 and Type 3) spinal muscular atrophy primarily in children. Trials are evolving with Spinraza in adults. Data are also available in presymptomatic infants who were genetically diagnosed with spinal muscular atrophy.

Zolgensma® (onasemnogene abeparvovec-xioi intravenous infusion), an adeno-associated virus vector-based gene therapy, is indicated for the treatment of pediatric patients < 2 years of age with spinal muscular atrophy with bi-allelic mutations in the SMN1 gene.[7] The agent works by providing a copy of the gene

encoding the SMN protein, which increases its production. Zolgensma is administered as a single-dose intravenous infusion over 60 minutes. Pivotal studies mainly involve infants with two or three SMN2 gene copies with primarily Type 1 or Type 2 disease.

Clinical Efficacy

The efficacy of Evrysdi for the treatment of patients with infantile-onset (Type 1), later-onset (Type 2 and 3), and pre-symptomatic spinal muscular atrophy was evaluated in three clinical studies.[1,10,11] **FIREFISH** involved patients with Type 1 spinal muscular atrophy who had symptom onset between 28 days and 3 months of age.[1] Genetic confirmation of homozygous deletion or compound heterozygosity predictive or loss of function of the SMN1 gene was required for trial entry. Patients had two SMN2 gene copies. Many patients gained improvements in the ability to sit for at least 5 seconds independently, as well as in the percentages of patients who were alive without permanent ventilation. **SUNFISH** evaluated Evrysdi in patients with later-onset (Type 2 or Type 3) spinal muscular atrophy. Most patients (90.2%) had three SMN2 gene copies; 7.8% and 2.0% of patients had four and two SMN2 gene copies, respectively. In Part 2 of the study, benefits of Evyrsdi vs. placebo were noted at Month 12 in motor function as well as in upper limb motor performance. **RAINBOWFISH** investigated Evrysdi in infants up to 6 weeks of age (at the first dose) who had been genetically diagnosed with spinal muscular atrophy but did not have symptoms. In total, 7 patients have received Evrysdi for at least 12 months. Four patients had two SMN2 copies, two patients had three SMN2 gene copies, and one patient had four or more SMN2 copies. The median age at first dose among the 7 patients was 35 days. The six patients with two or three SMN2 gene copies achieved various motor milestones at Month 12, including the ability to sit. Of note, in general, the onset of effect with Evrysdi was observed after approximately 4 months of therapy. Evrysdi has not been evaluated in patients with fewer than two or more than four SMN2 gene copies. Clinical data showing benefits are not available for patients over 25 years of age.

Guidelines

Evrysdi is not addressed in guidelines. According to a treatment algorithm from the Spinal Muscular Atrophy Newborn Screening Multidisciplinary Working Group (2018), immediate treatment is recommended in patients with two or three SMN2 gene copies.[8] In 2020, the Working Group updated recommendations that infants diagnosed with spinal muscular atrophy via newborn screening with four SMN2 gene copies should receive immediate treatment.[9] It is likely that patients with only one SMN2 gene copy will be symptomatic at birth and the physician should determine if treatment is warranted. Also, patients with five (or more) SMN2 gene copies should be observed and screened for symptoms.

Safety

Based on animal data, Evrysdi may cause fetal harm if given to a pregnant woman.[1] Pregnancy testing is recommended for females of reproductive potential prior to initiating Evrysdi. Advise females of reproductive potential to use effective contraception during treatment with Evrysdi and for at least 1 month after the last dose.

POLICY STATEMENT

Prior Authorization is recommended for prescription benefit coverage of Evrysdi. All approvals are provided for the duration noted below. In cases where the approval is authorized in months, 1 month is equal to 30 days. Because of the specialized skills required for evaluation and diagnosis of patients treated with Evrysdi as well as the monitoring required for adverse events and long-term efficacy, approval requires Evrysdi to be prescribed by or in consultation with a physician who specializes in the condition being treated. Verification that the patient has not previously received Zolgensma® (onasemnogene abeparvovec-xioi intravenous infusion) is required as noted by **[verification required by prescriber]**. Approval for a patient who is ≥ 26 years of age and continuing therapy must be supported with verification in the

prescription claims history (e.g., patient has not been receiving samples or coupons in order to obtain access to Evrysdi) in the timeframe for when the patient was ≤ 25 years of age, noted by **[verification in prescription claims history required]**. All reviews will be forwarded to the Medical Director for evaluation.

Automation: None.

Documentation: Documentation is required where noted in the criteria as **[documentation required]**. Documentation may include, but is not limited to, chart notes, laboratory tests, claims records, and/or other information. In subsequent coverage reviews for a patient who has previously met the documentation requirements and related criteria in the *Spinal Muscular Atrophy – Evrysdi Prior Authorization Policy* through the Coverage Review Department, and who is requesting reauthorization, the criteria utilized do NOT require resubmission of documentation for reauthorization, except for the criterion requiring documentation of response or benefit to Evrysdi therapy.

RECOMMENDED AUTHORIZATION CRITERIA

Coverage of Evrysdi is recommended in those who meet the following criteria:

FDA-Approved Indication

1. **Spinal Muscular Atrophy – Treatment.** Approve if the patient meets ONE of the following criteria (A or B):
   - **A)** Initial Therapy. Approve for 4 months if the patient meets the following criteria (i, ii, iii, iv, v, vi, vii, viii, and ix):
     - **i.** Patient is ≤ 25 years of age; AND
     - **ii.** Baseline motor ability assessment that suggests spinal muscular atrophy (based on age, motor ability, and development) is provided from one of the following exams (a, b, c, d, e, f, or g) **[documentation required]**:
       - **a)** Bayley Scales of Infant and Toddler Development, Third Edition (BSID-III) [Item 22]; OR
       - **b)** Children's Hospital of Philadelphia Infant Test of Neuromuscular Disorders (CHOP-INTEND); OR
       - **c)** Hammersmith Functional Motor Scale Expanded (HFMSE); OR
       - **d)** Hammersmith Infant Neurological Exam Part 2 (HINE-2); OR
       - **e)** Motor Function Measure-32 Items (MFM-32); OR
       - **f)** Revised Upper Limb Module (RULM) test; OR
       - **g)** World Health Organization motor milestone scale; AND
     - **iii.** Patient has had a genetic test confirming the diagnosis of spinal muscular atrophy 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 **[documentation required]**; AND
     - **iv.** Patient meets one of the following (a or b):
       - **a)** Patient has two or three survival motor neuron 2 (SMN2) gene copies **[documentation required]**; OR
       - **b)** Patient meets both of the following ([1] and [2]):
         - **(1)** Patient has four survival motor neuron 2 (SMN2) gene copies **[documentation required]**; AND
         - **(2)** According to the prescriber, the patient has objective signs consistent with spinal muscular atrophy Types 1, 2, or 3 **[documentation required]**; AND

v. For a patient currently receiving or who has received prior treatment with Spinraza (nusinersen intrathecal injection), the prescriber attests that further therapy with Spinraza will be discontinued; AND

vi. Patient has not received Zolgensma (onasemnogene abeparvovec-xioi intravenous infusion) in the past **[verification required by prescriber]**; AND
Note: Verify through claims history that the patient has NOT previously received Zolgensma AND, if no claim for Zolgensma is present, the prescriber must attest that the patient has not previously received Zolgensma.

vii. Females of current reproductive potential must have the prescriber confirm BOTH of the following (a and b):
- **a)** Patient is not currently pregnant; AND
- **b)** Effective contraception will be utilized during treatment and for 1 month after the last Evrysdi dose; AND

viii. Dosing of Evrysdi meets ONE of the following based on the current (within the past 1 month) kg weight (a, b, c or d):
- **a)** 0.15 mg/kg once daily if the patient is < 2 months of age; OR
- **b)** 0.2 mg/kg once daily if the patient is 2 months to < 2 years of age; OR
- **c)** 0.25 mg/kg once daily if the patient is ≥ 2 years of age and weighs < 20 kg; OR
- **d)** 5 mg once daily if the patient is ≥ 2 years of age and weighs ≥ 20 kg; AND

ix. Medication is prescribed by a physician who has consulted with a specialist or who specializes in the management of patients with spinal muscular atrophy and/or neuromuscular disorders; OR

B) Patient Currently Receiving Evrysdi. Approve for 4 months if the patient meets all of the following criteria (i, ii, iii, iv, v, vi, vii, viii, and ix):

i. Patient meets both of the following (a and b):
- **a)** Patient was ≤ 25 years of age when Evrysdi therapy was started; AND
- **b)** If the patient is ≥ 26 years of age, initiation of Evrysdi therapy at ≤ 25 years of age must be verified in prescription claims history **[verification in prescription claims history required]**; AND
  Note: Utilizing samples of Evrysdi or coupons for Evrysdi does not meet this requirement.

ii. Patient has had a genetic test confirming the diagnosis of spinal muscular atrophy 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 **[documentation required]**; AND

iii. Patient meets one of the following (a or b):
- **a)** Patient has two or three survival motor neuron 2 (SMN2) gene copies **[documentation required]**; OR
- **b)** Patient meets both of the following criteria [(1) and (2)]:
  - **(1)** Patient has four survival motor neuron 2 (SMN2) gene copies **[documentation required]**; AND
  - **(2)** According to the prescriber, the patient has objective signs consistent with spinal muscular atrophy Types 1, 2, or 3 **[documentation required]**; AND

iv. For a patient currently receiving or who has received prior treatment with Spinraza (nusinersen intrathecal injection), the prescriber attests that further therapy with Spinraza will be discontinued; AND

v. Patient has not received Zolgensma (onasemnogene abeparvovec-xioi intravenous infusion) in the past **[verification required by the prescriber]**; AND
Note: Verify through claims history that the patient has NOT previously received Zolgensma AND, if no claim for Zolgensma is present, the prescriber must attest that the patient has not previously received Zolgensma.

vi. Females of current reproductive potential must have the prescriber confirm BOTH of the following (a and b):
- **a)** Patient is not currently pregnant; AND
- **b)** Effective contraception will be utilized during treatment and for 1 month after the last Evrysdi dose; AND

vii. Dosing of Evrysdi meets ONE of the following based on the current (within the past 1 month) kg weight (a, b, c, or d):
- **a)** 0.15 mg/kg once daily if the patient is < 2 months of age; OR
- **b)** 0.2 mg/kg once daily if the patient is 2 months to < 2 years of age; OR
- **c)** 0.25 mg/kg once daily if the patient is ≥ 2 years of age and weighs < 20 kg; OR
- **d)** 5 mg once daily if the patient is ≥ 2 years of age and weighs ≥ 20 kg; AND

viii. Medication is prescribed by a physician who has consulted with a specialist or who specializes in the management of patients with spinal muscular atrophy and/or neuromuscular disorders; AND

ix. Patient must meet one of the following (a or b):
- **a)** Patient must have had a positive clinical response (for example, improvement or stabilization) from pretreatment baseline status (i.e., within the past 4 months) with Evrysdi in one of the following [(1), (2), (3), (4), (5), (6), or (7)] **[documentation required]**:
  - **(1)** Bayley Scales of Infant and Toddler Development, Third Edition (BSID-III) [Item 22]; OR
  - **(2)** Children's Hospital of Philadelphia Infant Test of Neuromuscular Disorders (CHOP-INTEND); OR
  - **(3)** Hammersmith Functional Motor Scale Expanded (HFMSE); OR
  - **(4)** Hammersmith Infant Neurological Exam Part 2 (HINE-2); OR
  - **(5)** Motor Function Measure-32 Items (MFM-32); OR
  - **(6)** Revised Upper Limb Module (RULM) test; OR
  - **(7)** World Health Organization motor milestone scale; OR
- **b)** According to the prescriber, the patient has responded to Evrysdi and continues to benefit from ongoing Evrysdi therapy by the most recent (i.e., within the past 4 months) physician monitoring/assessment tools **[documentation required]**.
  Note: Examples include pulmonary function tests showing improvement, bulbar function test results suggesting benefits, reduced need for respiratory support, decrease in the frequency of respiratory infections or complications, and/or prevention of permanent assisted ventilation.

CONDITIONS NOT RECOMMENDED FOR APPROVAL

Coverage of Evrysdi is not recommended in the following situations:

1. **Patient has Complete Paralysis of All Limbs.** Data are needed to determine if this patient population with advanced spinal muscular atrophy would derive benefits from Evrysdi.

2. **Patient has Permanent Ventilator Dependence.** Data are needed to determine if this patient population with advanced spinal muscular atrophy would derive benefits from Evrysdi.
3. Coverage is not recommended for circumstances not listed in the Recommended Authorization Criteria. Criteria will be updated as new published data are available.

REFERENCES

1. Evrysdi® oral solution [prescribing information]. South San Francisco, CA; Genentech/Roche; May 2022.
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HISTORY

Type of Revision	Summary of Changes	Review Date
Annual Revision	**Spinal Muscular Atrophy – Treatment:** Removed the criterion that required that the patient does not have evidence of hepatic impairment according to the prescriber in the criteria regarding initial therapy and for patients currently receiving Evrysdi. In the criteria in which the patient is currently receiving Evrysdi, for that criterion which states that "according to the prescriber, the patient has responded to Evrysdi or continues to have benefit from ongoing Evrysdi therapy by the most recent (within the past 4 months) objective measurement and/or assessment tool" the "or" was changed to "and". To the examples listed in the note regarding this criterion, regarding bulbar function test results the phrase "suggest benefits" was added. Also, the example of "decrease in the frequency of respiratory infections or complications" was added.	07/07/2021
Early Annual Revision	**Spinal Muscular Atrophy – Treatment:** For initial therapy, a criterion was added that a baseline motor ability assessment that suggests spinal muscular atrophy (based on age, motor ability, and development) is provided; documentation is required. Motor ability assessments which would satisfy this requirement were listed; refer to the policy criteria. For a patient currently receiving Evrysdi, criteria were more specific for a response to therapy by stating that the patient must have had a positive clinical response (for example, improvement or stabilization) from pretreatment baseline status (i.e., within the past 4 months) with Evrysdi from a motor ability assessment (with acceptable assessments listed in criteria) OR meet the criteria regarding a response that was previously in place regarding use of physician monitoring/assessment tools, with examples still listed in a Note with continuation of documentation being required. Of note, many of the scales now specifically listed were provided in the previous examples that could be met regarding response to therapy.	09/08/2021
Selected Revision	**Spinal Muscular Atrophy – Treatment:** A requirement was added for a patient currently receiving Evrysdi therapy that the patient must have been ≤ 25 years of age when Evrysdi therapy was started; previously, there was no requirement regarding age of Evrysdi initiation for a patient continuing therapy. If the patient is ≥ 26 years of age and is continuing therapy with Evrysdi, prescription claims history must be used to verify that the patient initiated Evrysdi when the patient was ≤ 25 years of age. Additionally, a Note was added that utilizing samples of Evrysdi or coupons does not meet this requirement.	09/29/2021
Selected Revision	**Conditions Not Recommended for Approval:** Added the requirement that the patient is < 2 months of age.	01/26/2022
Selected Revision	**Spinal Muscular Atrophy – Treatment:** For initial therapy, the requirement was removed that the patient is ≥ 2 months of age. However, the requirement that the patient is ≤ 25 years of age remains in place. For initial therapy and if the patient is currently receiving Evrysdi, the dose for a patient < 2 months of age (0.15 mg/kg once daily) was added as an option. Also, the criteria were revised such that a patient with two or three survival motor neuron 2 gene copies is now not required to have objective signs consistent with spinal muscular atrophy Types 1, 2, or 3; however, this requirement remains for a patient with four survival motor neuron 2 gene copies. **Conditions Not Recommended for Approval:** Deleted the criteria that a patient < 2 months of age is not eligible for therapy.	06/08/2022