[TEMPLATE

Letter of Medical Necessity:

Use of SPINRAZA® (nusinersen) for Spinal Muscular Atrophy

(Reauthorization)]

Date:

[Name of Medical Director] RE: Patient Name [_____]

[Health Plan] Policy Number [_____]

[Address] Claim Number [_____]

[City, State, Zip]

Dear **[Health Plan]**:

I am writing this letter of medical necessity to provide information related to continuing the treatment of **[patient name]** with SPINRAZA® (nusinersen), a US Food and Drug Administration (FDA)–approved treatment for spinal muscular atrophy (SMA).

As a board certified **[field of certification]** with **[#]** years caring for patients with SMA, I have prescribed SPINRAZA for this patient based on my clinical judgment and expertise. The approval of coverage is requested because I believe that treatment with SPINRAZA is medically necessary for **[patient name]**.

1. Summary of Patient's History [*You may want to include*]:

- Patient's diagnosis, condition, and relevant medical history, including observed functional loss prior to treatment
- Previous treatment history with SPINRAZA

- Brief description of the patient's symptoms and conditions before SPINRAZA and while on SPINRAZA treatment

[Patient name] receives a maintenance dose of SPINRAZA via an intrathecal injection once every 4 months. This patient may require additional medical procedures, including sedation/anesthesia and/or imaging to aid in the intrathecal injection (eg, ultrasound).

[*Insert details about individual patient needs as appropriate; fill in relevant services that have been required to administer* SPINRAZA.]

2. Assessment Tests for Motor Function in SMA

[*Note: You may want to customize the chart below to include only the assessments that are relevant to your patient.*]

The Hammersmith Infant Neurological Examination (HINE)	• The HINE evaluates motor skills and improvements in motor milestones. This assessment measures infants' neuromuscular development across 26 items, including 8 measures of motor milestones, such as voluntary grasp, ability to kick, head control, rolling, sitting, crawling, standing, and walking. Each item is scored from 0 to 3, with a total maximum score of 78. A 1-point increase in HINE score represents an increased level of ability from the previous evaluation
Children's Hospital of Philadelphia Infant Test of Neuromuscular Disorders (CHOP INTEND)	• CHOP INTEND is a specialized test that evaluates the motor skills of infants with SMA consistent with Type 1. CHOP INTEND is a 64-point motor assessment that evaluates muscle strength and function in infants. The test includes 16 items that may be graded between 0 and 4 • Assessment examples include – Spontaneous movement of the lower part of the body, such as raising feet and knees off of a surface and ankle movement – Head control – Hand grip – Twisting the pelvis – Rolling
Hammersmith Functional Motor Scale Expanded (HFMSE)	• The HFMSE consists of clinically relevant measures of gross motor function to allow for the assessment of ambulatory patients. This test is tailored to assess the needs of children with later-onset SMA, consistent with Type 2 or Type 3. The HFMSE includes 13 items that focus on gross motor function, including sitting, crawling, standing, and walking. Each item is scored from 0 to 2, with a total possible score of 66. A change in 2 points is considered clinically relevant. For example, an increase of 2 points may mean that a child who was previously not able to crawl has increased crawling ability
Revised Upper Limb Module (RULM)	• The RULM test assesses upper limb function in both ambulatory and nonambulatory patients with SMA. There are 20 items on the RULM test, with an entry item that identifies functional class. Nineteen items are graded on a 3-point scale, with a score of 0 (unable), 1 (able with modification), or 2 (able, no difficulty). Patients use their preferred arm for the assessment

	• Examples of items scored in the RULM test include bringing hands from lap to table, picking up coins/tokens, opening a Ziploc® container, tearing paper, and bringing both arms above the head
6-Minute Walk Test (6MWT)	• The 6MWT has applications in a variety of disease states and may be used to evaluate a patient's ability to perform daily physical activities. It is a measure of the distance a patient can walk in 6 minutes
World Health Organization (WHO) Motor Milestones	• The WHO milestones were developed to compare the actual windows of childhood development with those used in assessments of motor skills to provide a comparison across populations and countries. Achievement of key WHO milestones demonstrates progress against similarly aged peers • The 6 motor milestones are sitting without support, standing with assistance, hands-and-knees crawling, walking with assistance, standing alone, and walking alone
[Other Motor Function Test]	• **[Include a description of any additional motor function test that you have used for this patient]**

Other Assessment Tests for Consideration in SMA

- **Pulmonary function tests**
  - Examples include Spirometer, Oral Pneumograph, Sniff Nasal Inspiratory Pressure (SNIP), and Maximal Inspiratory Pressure/Maximal Expiratory Pressure (MIP/MEP)
- **Muscle strength tests**
  - Examples include Manual Muscle Testing (MMT) Grading, Medical Research Counsel (MRC) scale, Muscle Voluntary Isometric Contraction (MVIC)
- **Grip strength tests**
  - Examples include MyoGrip, MyoPinch, MoviPlate
- **Range of motion tests**
  - Examples include Goniometer

3. Patient's Motor Milestone Evaluation Results

[*Note: Using the chart below, include the milestone measurement test, date the test was administered, and your patient's score. Include a copy of your patient's updated functional test results along with his or her original baseline test results for comparison.*]

Motor Milestone Evaluation for [Patient Name]					
Baseline			**During Treatment With SPINRAZA**		
Date	**Test Performed**	**Results/Score**	**Date**	**Test Performed**	**Results**

[*Note: If your patient is unable to be evaluated using any of the tests required by the health plan, explain why each of those tests is inappropriate, then inform the health plan of how you intend to objectively measure the efficacy of SPINRAZA in this patient.*]

4. Rationale for Continuing Treatment for [Patient Name]

[*Note: Exercise your medical judgment and discretion when providing a diagnosis and characterization of the patient's medical conditions. You may want to call out any milestones your patient met but would have been unexpected to meet without SPINRAZA. As appropriate, include any evidence of maintenance or improvement in functional ability vs baseline that would not typically be expected based on the natural history of SMA*.]

In brief, based on the clinical data available to date and my patient's experience with SPINRAZA, it is my medical opinion that continuing the treatment of **[patient name]** with SPINRAZA is medically appropriate and necessary, and the procedures required for its administration should continue to be covered and should be a reimbursed service. **[Patient name]**'s medical history, prognosis, current activities, mobility-related abilities, and results of treatment with SPINRAZA to date have been detailed in this letter.

[*Summary of your professional opinion of the patient's likely prognosis without SPINRAZA treatment, based on the natural history of the disease.*]

5. The Importance of Maintaining or Achieving Milestones With SPINRAZA

SMA is a progressive disease regardless of type. A treatment like SPINRAZA that can maintain or improve the quality of life for some patients is critical because without such a treatment, patient health and prognoses would decline. The natural history of patients with more severe SMA (Type 1) results in a lifespan of <2 years due to a lack of respiratory support, feeding difficulties, and the inability to achieve motor milestones. Patients with SMA Type 2 may have respiratory insufficiencies that compromise lifespan and they typically exhibit limited mobility, muscle weakness, and progressive scoliosis, and may never walk or stand. Patients with SMA Type 3 may have hand tremors and typically have muscle weakness in the legs that may result in the need to use a wheelchair. As demonstrated in the clinical trials, SPINRAZA has enabled patients with SMA to achieve motor milestones they would otherwise not have been able to achieve without treatment, maintain milestones they may have lost, and/or survive to an age that was not expected.

6. SMA Pathophysiology

SMA is a genetic neuromuscular disease characterized by the degeneration of motor neurons in the anterior horn of the spinal cord. SMA is characterized by progressive symmetrical weakness and atrophy of the proximal voluntary muscles of the legs, arms, and, eventually, the entire trunk. Some infants and children affected by SMA develop profound deficits in motor function and miss several developmental milestones. SMA is among the leading genetic causes of infant mortality.

SMA results from the deletion and/or mutation of the survival motor neuron 1 (*SMN1*) gene. Nearly all patients with SMA have deletions of exon 7 in both copies of the *SMN1* gene, but a small percentage possesses 1 mutated copy of the *SMN1* gene. Unlike the *SMN1* gene, mutations in the second *SMN* gene, the *SMN2* gene*,* do not determine the development of SMA. Although there is at least 1 copy of the *SMN2* gene present in patients with SMA, the number of copies varies within the population. The number of *SMN2* gene copies has been shown

to correlate with disease types and the severity of SMA (eg, patients with SMA Type 2 or 3 are likely to have 2 to 4 copies of the *SMN2* gene, while patients with SMA Type 1 have 1 to 3 copies); however, it is not an absolute predictor of the type of SMA. Not all of the *SMN2* gene copies in an individual may be equivalent in terms of the amount of functional protein they produce; therefore, in many cases the number of *SMN2* gene copies is not a predictor of the clinical severity of SMA.

7. About SPINRAZA

SPINRAZA is a treatment approved by the FDA indicated for SMA in pediatric and adult patients. SPINRAZA has been studied across multiple clinical trials in patients with varying types of SMA, including presymptomatic and symptomatic infantile-onset and later-onset SMA. The patients in these studies had or were likely to develop SMA Type 1, 2, or 3. The overall findings of the controlled trials support the effectiveness of SPINRAZA across the range of patients with SMA and appear to support the early initiation of treatment with SPINRAZA. These findings are supported by open-label, uncontrolled clinical trials in infantile-onset SMA.

8. Concluding Remarks

[*HCP to insert information relevant to particular case (eg, given the patient's history, his/her current condition, and his/her successful results with* SPINRAZA*, I believe the continued treatment of [patient name] with this product is warranted, appropriate, and medically necessary. The totality of the data available for [patient name] supports the benefit of treatment with* SPINRAZA*).*]

Please call my office at **[telephone number]** if you need any additional information. I look forward to receiving your timely response and reauthorization approval of SPINRAZA for **[patient name]**.

Sincerely,

[Doctor name and participating provider number]

References

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