DR.004.A SPINRAZA™ (Nusinersen)

Health Partners Plans

Title: SPINRAZA™ (Nusinersen)
Policy #: DR.004.A
Type: Drug | **Sub-Type:** Drug (DR)

Original Implementation Date: 6/1/2019
Version Date [A]: 6/1/2019
Last Review Date: 4/17/2019

DRUG POLICY BULLETIN

***** NOTIFICATION OF PENDING IMPLEMENTATION *****

Please note that this Drug Policy Bulletin will be implemented on 6/1/2019.
This document provides a 30-day notification of this change.

TABLE OF CONTENTS

FDA APPROVED INDICATIONS

Spinraza® is a musculoskeletal agent indicated for the treatment of spinal muscular atrophy (SMA).

OFF-LABELED USE

Authorization for off-labeled use of medication will be evaluated on an individual basis. Review of an off-labeled request by the Medical Staff will be predicated on the appropriateness of treatment and full consideration of medical necessity. For off-label use Medical Directors will review scientific literature and local practice patterns.

Off-Labeled use includes the following (not an all-inclusive list):

1) No results available.

PRIOR AUTHORIZATION CRITERIA

INITIAL CRITERIA

1) Is the medication prescribed by or in consultation with a physician who specializes in treatment of spinal muscular atrophy? *If YES, go to 2. If NO, refer to Medical Director.*

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2) Will the required laboratory tests (platelet count, prothrombin time, activated partial prothrombin time and quantitative spot urine protein) be done prior to each administration? *If YES, go to 3. If NO, refer to Medical Director.*

3) Does the patient have a diagnosis of Spinal Muscular Atrophy (SMA) confirmed by corresponding mutation or deletion in the SMN gene found at chromosome 5q13, AND one of the following SMA phenotypes:

   - SMA I
   - SMA II
   - SMA III

   If YES, go to 4. If NO, refer to Medical Director.

4) Does the patient have documentation of *one or more of the following:*

   - A baseline evaluation, including a standardized assessment of motor function, by a neurologist with experience treating spinal muscular atrophy
   - Respiratory function tests [e.g. forced vital capacity (FVC), etc.]
   - Exacerbations necessitating hospitalization and/or antibiotic therapy for respiratory infection in the preceding year/time frame.
   - Patient weight (for patients without a gastrostomy tube)

   If YES, go to 5. If NO, refer to Medical Director.

5) Does the patient receive comprehensive treatment based on standards of care for spinal muscular dystrophy? *If YES, Approve for 12 months. If NO, refer to Medical Director.*

RENEWAL CRITERIA

1) Does the patient continue to meet the diagnostic criteria? *If YES, go to 2. If NO, refer to Medical Director.*

2) Does the patient have the absence of unacceptable toxicity which precludes safe administration of the drug? (Examples of unacceptable toxicity include the following: significant renal toxicity, thrombocytopenia, coagulation abnormalities, etc.) *If YES, go to 3. If NO, refer to Medical Director.*

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3) Does the patient receive comprehensive treatment based on standards of care for spinal muscular dystrophy? *If YES, go to 4. If NO, refer to Medical Director.*

4) Is the patient receiving clinical benefit based on the prescriber's assment? *If YES, go to 5. If NO, refer to Medical Director.*

5) An annual evaluation is performed including a standardized assessment of motor skills.

If YES, approve for 12 months. If NO, refer to Medical Director.

BACKGROUND

Spinal muscular atrophy (SMA) is characterized by loss of motor neurons in the spinal cord and lower brain stem, resulting in severe and progressive muscular atrophy and weakness (Biogen, 2016). Ultimately, individuals with the most severe type of SMA can become paralyzed and have difficulty performing the basic functions of life, like breathing and swallowing.

Due to a loss of, or defect in, the SMN1 gene, people with SMA do not produce enough survival motor neuron (SMN) protein, which is critical for the maintenance of motor neurons (Biogen, 2016). The severity of SMA correlates with the amount of SMN protein.

- **SMA type 0** — in the expanded classification, SMA type 0 designates prenatal onset of SMA although prenatal onset was traditionally classified as SMA type. At birth, infants with SMA type 0 have severe weakness and hypotonia, often with areflexia, facial diplegia, and congenital heart defect. Multiple joint contractures may be present. No motor milestones are achieved. Death occurs from respiratory failure by age six months and usually by one month.
  - Infants with SMA type 0 generally have only one copy of the SMN2 gene.
- **SMA type 1** — SMA type 1 is also known as infantile spinal muscular atrophy or Werdnig-Hoffmann disease. It typically presents after birth but before age six months.Affected infants may appear normal before the onset of symptoms, but soon develop a severe, symmetric flaccid paralysis and never achieve the ability to sit unsupported. Respiratory muscle weakness leads to progressive respiratory failure. The severe hypotonic leg weakness often manifests as a "frog-leg" posture when lying.

  Symptoms progress rapidly, and the majority of infants die before two years of age from respiratory failure nevertheless, long-term survivors have been reported. This is perhaps due, in part, to advances in the care of chronic respiratory insufficiency and to more aggressive care.

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- Patients with SMA type 1 generally have two or three copies of the SMN2 gene.

- **SMA type 2** — SMA type 2 (intermediate form; Dubowitz disease) accounts for approximately 20 percent of cases and has a less severe course than type 1. SMA type 2 most often presents between 3 and 15 months of age. The ability to sit unassisted is attained at some point but may be delayed. However, independent standing and walking is never achieved. Weakness is predominately proximal and affects the legs more than the arms. Muscular weakness leads to progressive scoliosis in nearly all affected individuals; the combination of respiratory muscle weakness and scoliosis.

DOSAGE AND ADMINISTRATION

Dosing Recommendations:

- Initiation:
  - Spinraza: 12 mg/5ml (5ml)
  - Total four loading doses: the first three loading doses should be administered at 14 day intervals. The 4th loading dose should be administered 30 days after the 3rd dose.
  - 12 mg administered as an intrathecal bolus injection over 1-3 minutes using a spinal anesthesia needle per administration. Do not administer in areas with signs of infection or inflammation.
  - Prior to administration, 5 ml of cerebral spinal fluid should be removed. Imaging guidance may be required for administration.
- Maintenance:
  - 12 mg dose once every 4 months thereafter
- Store refrigerated at 2 – 8 degrees ©; warm to room temperature prior to administration.

RISK FACTORS/SIDE EFFECTS

Hematologic effects: Coagulation abnormalities and thrombocytopenia (including acute severe thrombocytopenia), have been observed with some antisense oligonucleotides; increased risk of bleeding complications may occur. Perform a platelet count and coagulation testing at baseline, prior to each dose and as clinically needed.

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Renal toxicity: Renal toxicity, including potentially fatal glomerulonephritis, has been observed with some antisense oligonucleotides. Conduct quantitative spot urine protein testing (preferably using first morning urine) at baseline and prior to each dose. For urinary protein concentration >0.2 g/L, consider repeat testing and further evaluation.

BLACK BOX WARNING

No results available.

MONITORING

Therapeutic

- Physical Findings
  - Motor milestone improvement (e.g., kicking, head control, rolling, sitting, crawling, standing, walking) may indicate efficacy.

Toxic

- Laboratory Parameters
  - Obtain platelet count, prothrombin time, a PTT, and quantitative spot urine protein at baseline, prior to each dose, and as clinically needed

CODING

Note: The Current Procedural Terminology (CPT®), Healthcare Common Procedure Coding System (HCPCS), and the 10th revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) codes that *may* be listed in this policy are for reference purposes only. Listing of a code in this policy does not imply that the service is covered and is not a guarantee of payment. Other policies and coverage guidelines may apply. When reporting services, providers/facilities should code to the highest level of specificity using the code that was in effect on the date the service was rendered. This list may not be all inclusive.

CPT Code	Description
N/A	N/A

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HCPCS Code	Description
J2326	Injection, Nusinersen, 0.1 mg.

ICD 10 Code	Description
G12.0	Infantile spinal muscular atrophy, type I [Werdnig-Hoffman]
G12.1	Other inherited spinal muscular atrophy

POLICY HISTORY

This section provides a high-level summary of changes to the policy since the previous version.

Summary	Version	Version Date
New Policy.	A	6/1/2019

REFERENCES

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7. Prior TW, Finager E Spinal muscular atrophy. GeneReviews. https://www.ncbi.nlm.nih.gov/books/NBK1352/ (Accessed on December 12, 2017).

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9. Wang CH, Finkel RS, Bertini ES, et al. Consensus statement for standard care in spinal muscular atrophy. J Child Neurol. 2007 Aug; 22(8): 1027-49.