Reference number(s)
2133-A

STANDARD MEDICARE PART B MANAGEMENT

SPINRAZA (nusinersen)

POLICY

I. INDICATIONS

The indications below including FDA-approved indications and compendial uses are considered a covered benefit provided that all the approval criteria are met and the member has no exclusions to the prescribed therapy.

FDA-Approved Indication
Spinraza is indicated for the treatment of spinal muscular atrophy (SMA) in pediatric and adult patients.

All other indications will be assessed on an individual basis. Submissions for indications other than those enumerated in this policy should be accompanied by supporting evidence from Medicare approved compendia.

II. DOCUMENTATION

The following documentation must be available, upon request, for all initial submissions: Deletion or mutation at the SMN1 allele confirmed by genetic testing.

III. PRESCRIBER SPECIALTIES

This medication must be prescribed by or in consultation with a physician who specializes in treatment of spinal muscular atrophy.

IV. CRITERIA FOR INITIAL APPROVAL

Spinal muscular atrophy (SMA)
Authorization of 12 months may be granted for treatment of SMA when all of the following criteria are met:
A. Member has a diagnosis of SMA confirmed by genetic testing showing deletion or mutation at the SMN1 allele.
B. Member has Type 1, Type 2 or Type 3 SMA.
C. Member will not use Spinraza and Evrysdi concomitantly.

V. CONTINUATION OF THERAPY

All members (including new members) requesting authorization for continuation of therapy must be currently receiving therapy with the requested agent.

Authorization for 12 months may be granted when all of the following criteria are met:
A. The member is currently receiving therapy with Spinraza.
B. Spinraza is being used to treat an indication enumerated in Section IV.
C. The member is receiving benefit from therapy.
D. Member will not use Spinraza and Evrysdi concomitantly.

VI. SUMMARY OF EVIDENCE

The contents of this policy were created after examining the following resources:
1. The prescribing information for Spinraza.
2. The available compendium
    a. National Comprehensive Cancer Network (NCCN) Drugs and Biologics Compendium
    b. Micromedex DrugDex
    c. American Hospital Formulary Service- Drug Information (AHFS-DI)
    d. Lexi-Drugs
    e. Clinical Pharmacology
3. Spinal muscular atrophy: diagnosis and management in a new therapeutic era.
4. EFNS guidelines for the molecular diagnosis of neurogenetic disorders: motoneuron, peripheral nerve and muscle disorders.
5. Consensus statement for standard care in spinal muscular atrophy.

After reviewing the information in the above resources, the FDA-approved indications listed in the prescribing information for Spinraza are covered.

VII. EXPLANATION OF RATIONALE

Support for FDA-approved indications can be found in the manufacturer's prescribing information.

Support for using genetic testing as a requirement for diagnosis is supported by a guideline by Arnold and colleagues. Molecular genetic testing is the standard tool for the diagnosis of SMA. Patients with SMA have homozygous loss of function of both *SMN1* copies. Genetic testing for homozygous deletion will confirm the disease in 95% of patients irrespective of disease severity. All other patients with SMN-related SMA will be compound heterozygotes with a single *SMN1* deletion and a frameshift, nonsense, or missense mutation in the other *SMN1* copy. If homozygous *SMN1* deletion is not evident in a patient with suspected SMA, *SMN1* dosage analysis and sequencing of the remaining *SMN1* gene should be performed.
The traditional classification strategy divides patients into four groups. Type 1 is the most common and severe form. Patients experience an onset in the first six months of life and are never able to sit upright. Patients with Type 2 SMA are usually diagnosed in the first eighteen months of life. The ability to sit is typically achieved by 9 months and patients will never stand or walk independently, but some patients will be able to stand with assistance of bracing or a standing frame. Patients with Type 3 SMA typically exhibit symptoms after 18 months. The patient is able to stand or walk without support, but many patients lose these abilities when the disease progresses. Patients with type 4 SMA experience symptoms starting in adulthood and are ambulatory. The studies cited in the prescribing information included patients with type 1, 2 and 3 SMA.

VIII. REFERENCES

1. Spinraza [package insert]. Cambridge, MA: Biogen Inc.; February 2023.
2. Arnold WD, Kassar D, Kissel JT, et al. Spinal muscular atrophy: diagnosis and management in a new therapeutic era. *Muscle & Nerve*. 2015;51(2):157-167.

3. Burgunder JM, Schols L, Baets J, et al. EFNS guidelines for the molecular diagnosis of neurogenetic disorders: motoneuron, peripheral nerve and muscle disorders. *European J Neurol*. 2011;18:207-217.
4. Finkel RS, Chiriboga CA, Vajsar J, et al. Treatment of infantile-onset spinal muscular atrophy with nusinersen: a phase 2, open-label, dose-escalation study. *Lancet*. 2016;388:3017-26.
5. Ionis Pharmaceuticals, Inc. A Study to Assess the Efficacy and Safety of IONIS-SMN Rx in Infants with Spinal Muscular Atrophy. In: ClinicalTrials.gov [internet]. Bethesda (MD): National Library of Medicine (US). 2000- [2016 Feb 14]. Available from: https://clinicaltrials.gov/ct2/show/NCT02193074**.**
6. Mercuri E, Darras BT, Chiriboga CA, et al. Nusinersen versus sham control in later-onset spinal muscular atrophy. *N Engl J Med*. 2018; 378:625-635.
7. Wang CH, Finkel RS, Bertini ES, et al. Consensus statement for standard care in spinal muscular atrophy. *J Child Neurol*. 2007;22(8):1027-1049.