Reference number(s)
1834-A

SPECIALTY GUIDELINE 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 are considered experimental/investigational and not medically necessary.

II. DOCUMENTATION

Submission of the following information is necessary to initiate the prior authorization review:

A. Initiation of therapy:
   1. Deletion or mutation at the SMN1 allele confirmed by genetic testing.
   2. Medical records (e.g., chart notes, laboratory values) of the baseline assessment for at least one of the following assessment tools (based on patient age and motor ability) to establish baseline motor ability:
      i. Hammersmith Infant Neurological Exam Part 2 (HINE-2)
      ii. Hammersmith Functional Motor Scale Expanded (HFMSE)
      iii. Children's Hospital of Philadelphia Infant Test of Neuromuscular Disorders (CHOP-INTEND)

B. Continuation of therapy:
   1. Medical records (e.g., chart notes, laboratory values) of the most recent (less than 1 month prior to continuation request) assessment by at least one of the following assessments:
      i. HINE-2
      ii. HFMSE
      iii. CHOP-INTEND
      iv. For members prescribed Spinraza due to clinical worsening after receiving gene replacement therapy (e.g., Zolgensma): documentation of the impact of Spinraza therapy (e.g., impact on motor milestones)

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

Authorization of 12 months may be granted for treatment of SMA when all of the following criteria are met:
A. Member has type 1, type 2, or type 3 SMA.
B. There is genetic documentation of 5q SMA homozygous gene mutation, homozygous gene deletion, or compound heterozygote.
C. The member is 25 years of age or younger at initiation of treatment.
D. Member is not dependent on either of the following:
    1. Invasive ventilation or tracheostomy
    2. Use of non-invasive ventilation beyond naps and nighttime sleep
E. Member meets one of the following criteria:
    1. Member has not previously received gene replacement therapy for SMA (e.g., Zolgensma), or
    2. Member has previously received gene replacement therapy for SMA (e.g., Zolgensma) and has experienced a worsening in clinical status since receiving gene replacement therapy as demonstrated by a decline of minimally clinical important difference from highest score achieved on one of the following exams (based on member age and motor ability):
        i. HINE-2: Decline of at least 2 points on kicking and 1 point on any other milestone (excluding voluntary grasp)
        ii. HFMSE: Decline of at least 3 points
        iii. CHOP-INTEND: Decline of at least 4 points
F. Member will not use Spinraza and Evrysdi concomitantly.
G. If the member has not received a loading dose, the loading dose will be dosed at 12 mg (5mL) on Day 0, 14, 28, and 58.

V. CONTINUATION OF THERAPY

Note: Members who were previously established on Spinraza and subsequently administered gene replacement therapy (e.g., Zolgensma) must meet all initial criteria prior to re-starting therapy on Spinraza.

Authorization of 12 months may be granted for continued treatment of SMA when all of the following criteria are met:
A. Member has type 1, type 2, or type 3 SMA.
B. Member is not dependent on either of the following:
    1. Invasive ventilation or tracheostomy
    2. Use of non-invasive ventilation beyond naps and nighttime sleep
C. Submission of medical records (e.g., chart notes, laboratory values) of the most recent (less than 1 month prior to continuation request) assessment documenting a positive clinical response from pretreatment baseline to Spinraza therapy, as demonstrated by at least one of the following assessments:
    1. HINE-2
        i. One of the following:
            a. Member exhibited improvement or maintenance of previous improvement of at least a 2-point (or maximal score) increase in ability to kick; *or*
            b. Member exhibited improvement or maintenance of previous improvement of at least a 1-point (or maximal score) increase in any other HINE-2 milestone (e.g., head control, rolling, sitting, crawling, standing, or walking) excluding voluntary grasp; *and*
        ii. One of the following:
            a. Member exhibited improvement or maintenance of previous improvement in more HINE-2 motor milestones than worsening (net positive improvement); or

b. Member achieved and maintained any new motor milestones when they would otherwise be unexpected to do so (e.g., sit or stand unassisted, walk)

2. HFMSE
   i. One of the following:
      a. Member exhibited improvement or maintenance of previous improvement of at least a 3-point increase in score; *or*
      b. Member has achieved and maintained any new motor milestone from pretreatment baseline when they would otherwise be unexpected to do so
3. CHOP-INTEND
   i. One of the following:
      a. Member exhibited improvement or maintenance of previous improvement of at least a 4-point increase in score; *or*
      b. Member has achieved and maintained any new motor milestone from pretreatment baseline when they would otherwise be unexpected to do so
4. Member was prescribed Spinraza due to clinical worsening after receiving gene replacement therapy (e.g., Zolgensma) and there is documentation of stabilization or improvement in clinical status with Spinraza therapy (e.g., impact on motor milestones).

D. Member will not use Spinraza and Evrysdi concomitantly
E. If member has already received a loading dose, the maintenance dose will not exceed 12 mg (5 mL) every 4 months.

VI. 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. Finkel RS, Mercuri E, Darras BT, et al. Nusinersen versus sham control in infantile-onset spinal muscular atrophy. *N Engl J Med*. 2017; 377:1723-1732.
6. 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**.**
7. 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.
8. 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.