

Radicava (edaravone)
PAM-012

Iowa Medicaid Program:	Prior Authorization	Effective Date:	07/01/2021
Revision Number:	4	Last Rev Date:	04/19/2024
Reviewed By:	Medicaid Medical Director	Next Rev Date:	04/18/2025
Approved By:	Medicaid Clinical Advisory Committee	Approved Date:	11/27/2017

Overview

Medication: ¹	edaravone
Brand Name:	Radicava [®]
Pharmacologic Category:	Free radical scavenger
FDA-Approved Indication(s):	Amyotrophic lateral sclerosis (ALS)
How Supplied:	Single-dose bag: 30 mg/100 mL (0.3 mg/mL)
Dosage and Administration:	Intravenous infusion of 60 mg according to the following schedule: <ul style="list-style-type: none"> • Initial treatment cycle: daily dosing for 14 days, followed by a 14-day drug-free period. • Subsequent treatment cycles: daily dosing for 10 days out of a 14-day period, followed by a 14-day drug-free period.
Benefit Category:	Medical

Radicava ORS[®], an edaravone oral suspension, was approved by the FDA on May 12, 2022. This product is self-administered and would not be covered under the medical benefit. Criteria in this policy only applies to Radicava, the intravenous infusion.

Descriptive Narrative

Amyotrophic lateral sclerosis (ALS), commonly known as Lou Gehrig’s disease, is a progressive, presently incurable neurodegenerative disorder that causes muscle weakness, disability, and eventually death. ALS is the most common form of acquired motor neuron disease. Clinical manifestations of ALS include the presence of upper motor neuron and lower motor neuron signs, progression of disease, and the absence of an alternative explanation.²

ALS has an annual incidence of one to three cases per 100,000 people. There does not appear to be any ethnic or racial disposition to ALS. Prior to 65 to 70 years of age, the incidence of ALS is higher in males than females, but thereafter the gender incidence is equal. ALS has an age distribution that peaks in the seventh to eighth decades. However, ALS can occur in people in their twenties. ALS is most commonly sporadic. Genetic or familial ALS represents only 10 percent of all ALS.³

Diagnostic criteria for amyotrophic lateral sclerosis (ALS) – comparison

There is no single diagnostic test that can confirm or entirely exclude the diagnosis of motor neuron disease. A consensus meeting was convened in 2019 (Gold Coast, Australia, 2019) to consider the development of simpler criteria that better reflect clinical practice and that could merge diagnostic categories into a single entity.⁴ A comparison of the criteria is shown below.

Category*	Revised El Escorial (or Arlie House) criteria (2005) ⁵	Awaji criteria** (2008) ⁶	Gold Coast criteria*** (2019) ⁷
Presence of ALS	Different diagnostic categories (see below)	Different diagnostic categories (see below)	Progressive motor impairment documented by history or repeated clinical assessment, preceded by normal motor function, AND Presence of UMN and LMN dysfunction in at least one body region, OR LMN dysfunction in at least two body regions, AND Investigations excluding other disease processes
Definite ALS	UMN and LMN signs in three spinal regions, OR Bulbar region and two spinal regions	UMN and LMN signs in three spinal regions, OR Bulbar region and two spinal regions	Abolished
Probable ALS	UMN and LMN signs in at least two regions with some UMN signs necessarily rostral to (above) the LMN signs	UMN and LMN signs in at least two regions with some UMN signs necessarily rostral to (above) the LMN signs	Abolished
Clinically probable ALS: laboratory-supported	UMN and LMN signs in one region, OR UMN signs alone present in one region, and LMN signs defined by EMG criteria present in at least two regions	Category abolished	
Possible ALS	UMN and LMN signs in one region, OR UMN signs in two or more regions; OR LMN signs are found rostral to UMN signs and the diagnosis of clinically probable ALS-laboratory supported cannot be proven		Abolished

* Abbreviations: **ALS**: amyotrophic lateral sclerosis; **LMN**: lower motor neuron; **UMN**: upper motor neuron

** For Awaji criteria, LMN dysfunction was defined by clinical, electrophysiological, or neuropathological examination. Fasciculation potentials were regarded equivalent to ongoing changes (fibrillation potentials and positive sharp waves) in the presence of chronic neurogenic changes.

*** For Gold Coast criteria, LMN dysfunction was defined clinically or by electrophysiological assessment. Diagnostic categories were excluded in the Gold Coast criteria.

Amyotrophic Lateral Sclerosis (ALS) Functional Rating Scale – Revised (ALSFRS-R)

The ALSFRS-R measures progression of disability in people with amyotrophic lateral sclerosis (ALS).⁸ Scores decline with disease progression at a rate that is generally consistent across clinical trials. The original ALSFRS was revised in 1999 to balance respiratory with limb and bulbar categories. The ALSFRS-R measures 12 aspects of physical function, ranging from one's ability to swallow and use utensils to climbing stairs and breathing. Each function is scored from 0 to 4, with higher scores representing greater functional ability.

 BULBAR	 FINE MOTOR	 GROSS MOTOR	 RESPIRATORY
<p>Speech</p> <p>4 Normal</p> <p>3 Detectable speech disturbance</p> <p>2 Intelligible with repeating</p> <p>1 Speech combined with nonvocal communication</p> <p>0 Loss of useful speech</p> <p>Salivation</p> <p>4 Normal</p> <p>3 Slight but definite excess of saliva in mouth; may have nighttime drooling</p> <p>2 Moderately excessive saliva; may have minimal drooling</p> <p>1 Marked excess of saliva with some drooling</p> <p>0 Marked drooling; requires constant tissue or handkerchief</p> <p>Swallowing</p> <p>4 Normal</p> <p>3 Early eating problems—occasional choking</p> <p>2 Dietary consistency changes</p> <p>1 Needs supplemental tube feeding</p> <p>0 NPO (exclusively parenteral or enteral feeding)</p>	<p>Handwriting</p> <p>4 Normal</p> <p>3 Slow or sloppy; all words are legible</p> <p>2 Not all words are legible</p> <p>1 Able to grip pen but unable to write</p> <p>0 Unable to grip pen</p> <p>Cutting Food*</p> <p>4 Normal</p> <p>3 Somewhat slow and clumsy, but no help needed</p> <p>2 Can cut most foods, although clumsy and slow; some help needed</p> <p>1 Food must be cut by someone, but can still feed slowly</p> <p>0 Needs to be fed</p> <p>Dressing and Hygiene</p> <p>4 Normal</p> <p>3 Independent and complete self-care with effort or decreased efficiency</p> <p>2 Intermittent assistance or substitute methods</p> <p>1 Needs attendant for self-care</p> <p>0 Total dependence</p> <p><small>*There are different assessments for cutting food with gastrostomy.</small></p>	<p>Turning in Bed</p> <p>4 Normal</p> <p>3 Somewhat slow and clumsy, but no help needed</p> <p>2 Can turn alone or adjust sheets, but with great difficulty</p> <p>1 Can initiate, but not turn or adjust sheets alone</p> <p>0 Helpless</p> <p>Walking</p> <p>4 Normal</p> <p>3 Early ambulation difficulties</p> <p>2 Walks with assistance</p> <p>1 Non-ambulatory functional movement only</p> <p>0 No purposeful leg movement</p> <p>Climbing Stairs</p> <p>4 Normal</p> <p>3 Slow</p> <p>2 Mild unsteadiness or fatigue</p> <p>1 Needs assistance</p> <p>0 Cannot do</p>	<p>Dyspnea</p> <p>4 None</p> <p>3 Occurs when walking</p> <p>2 Occurs with one or more of the following: eating, bathing, dressing (ADL)</p> <p>1 Occurs at rest, difficulty breathing when either sitting or lying</p> <p>0 Significant difficulty, considering using mechanical respiratory support</p> <p>Orthopnea</p> <p>4 None</p> <p>3 Some difficulty sleeping at night due to shortness of breath. Does not routinely use more than two pillows</p> <p>2 Needs extra pillow in order to sleep (more than two)</p> <p>1 Can only sleep sitting up</p> <p>0 Unable to sleep</p> <p>Respiratory Insufficiency</p> <p>4 None</p> <p>3 Intermittent use of BiPAP</p> <p>2 Continuous use of BiPAP</p> <p>1 Continuous use of BiPAP during the night and day</p> <p>0 Invasive mechanical ventilation by intubation or tracheostomy</p>

Guidelines

Current practice guidelines for care of the patient with ALS from the American Academy of Neurology were published in 2009 and reaffirmed in 2020.^{9,10}

- Practice parameter update: The care of the patient with amyotrophic lateral sclerosis: drug, nutritional, and respiratory therapies (an evidence-based review): Report of the Quality Standards Subcommittee of the American Academy of Neurology.
- Practice parameter update: The care of the patient with amyotrophic lateral sclerosis: multidisciplinary care, symptom management, and cognitive/behavioral impairment (an evidence-based review): Report of the Quality Standards Subcommittee of the American Academy of Neurology.

Criteria

Prior authorization is required.

Radicava® is considered medically necessary when **ALL** of the following are met:

1. Diagnosis of definite or probable amyotrophic lateral sclerosis (ALS) based on El Escorial or Airlie House diagnostic criteria; **AND**
2. Onset of ALS has been 2 years or less at time of therapy initiation; **AND**
3. Member is 18 years of age or older; **AND**
4. Prescribed by, or in consultation with, a neurologist; **AND**
5. Scores of 2 points or better on each individual item of the Amyotrophic Lateral Sclerosis (ALS) Functional Rating Scale – Revised (ALSFRS-R); **AND**
6. Normal respiratory function, defined as forced vital capacity (FVC) \geq 80 percent of predicted function) at the start of treatment; **AND**
7. Concomitant use of riluzole (at up to maximally indicated doses) unless clinically significant adverse effects are experienced or therapy is contraindicated; **AND**
8. The regimen prescribed is within the FDA-approved labeling. If dose or schedule exceeds the FDA-approved regimen, regimen (including dosage) must be supported by clinical practice guidelines (supporting clinical documentation must be provided with any request for which the regimen or dosage prescribed does not align with FDA-approved labeling).

Radicava® is considered medically necessary for continuation of therapy when **ALL** of the following are met:

1. Member is currently receiving medication through the Iowa Medicaid benefit or has previously met initial approval criteria; **AND**
2. Member has a positive clinical response to therapy (e.g., maintains the ability to perform most activities of daily living and is not experiencing rapid disease progression while on therapy), based on assessment by a neurologist; **AND**
3. Member is not dependent on invasive ventilation or tracheostomy; **AND**
4. Prescribed by, or in consultation with, a neurologist; **AND**
5. The regimen prescribed is within the FDA-approved labeling. If dose or schedule exceeds the FDA-approved regimen, regimen (including dosage) must be supported by clinical practice guidelines (supporting clinical documentation must be provided with any request for which the regimen or dosage prescribed does not align with FDA-approved labeling).

Approval Duration and Quantity Limits

	Approval Duration	Quantity Limits
Initial Authorization	6 months	Limit of 6 cycles (64 doses) over 168 days
Subsequent Authorization(s)	6 months	Limit of 6 cycles (60 doses) over 168 days

Coding and Product Information

The following list(s) of codes and product information are provided for reference purposes only and may not be all inclusive. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment, nor does the exclusion of a code imply that its association to the HCPCS code is inappropriate.

HCPCS	Description
J1301	Injection, edaravone, 1 mg

ICD-10	Description
G12.21	Amyotrophic lateral sclerosis

NDC	Labeler	Dosage	Pkg Size	Pkg Qty	Units/Pkg
70510-2171-01	Mitsubishi Tanabe Pharma America, Inc.	1 mg	1	EA	30
70510-2171-02	Mitsubishi Tanabe Pharma America, Inc.	1 mg	2	EA	60

Compliance

1. Should conflict exist between this policy and applicable statute, the applicable statute shall supersede.
2. Federal and State law, as well as contract language, including definitions and specific contract provisions or exclusions, take precedence over medical policy and must be considered first in determining eligibility for coverage.
3. Medical technology is constantly evolving, and Iowa Medicaid reserves the right to review and update medical policy on an annual or as-needed basis.

Medical necessity guidelines have been developed for determining coverage for member benefits and are published to provide a better understanding of the basis upon which coverage decisions are made. Medical necessity guidelines are developed for selected physician-administered medications found to be safe and proven to be effective in a limited, defined population or clinical circumstances. They include concise clinical coverage criteria based on current literature review, consultation with practicing physicians in the service area who are medical experts in the particular field, FDA and other government agency policies, and standards adopted by national accreditation organizations. Criteria are revised and updated annually, or more frequently if new evidence becomes available that suggests needed revisions.

References

¹ Radicava prescribing information (05/2022). Mitsubishi Tanabe Pharma America, Inc.: Jersey City, NJ. Available online at www.radicavahcp.com. Accessed January 2, 2024.

² Elman LB, McCluskey L. Diagnosis of amyotrophic lateral sclerosis and other forms of motor neuron disease. Goddeau RP, Jr., ed. UpToDate. Waltham, MA: UpToDate Inc. www.uptodate.com. Accessed February 27, 2024.

³ Elman LB, McCluskey L. Clinical features of amyotrophic lateral sclerosis and other forms of motor neuron disease. Goddeau RP, Jr., ed. UpToDate. Waltham, MA: UpToDate Inc. www.uptodate.com. Accessed February 27, 2024.

⁴ Vucic S, Ferguson TA, et al. Gold Coast diagnostic criteria: Implications for ALS diagnosis and clinical trial enrollment. *Muscle Nerve*. 2021 Nov;64(5):532-537. Epub 2021 Aug 24. PMID: 34378224.

⁵ Brooks BR, Miller RG, Swash M, Munsat TL. El Escorial revisited: revised criteria for the diagnosis of amyotrophic lateral sclerosis. *Amyotroph Lateral Scler Other Motor Neuron Disord*. 2000;1: 293-299

⁶ de Carvalho M, Dengler R, Eisen A, et al. Electrodiagnostic criteria for diagnosis of ALS. *Clin Neurophysiol*. 2008;119:497-503.

⁷ Hannaford A, Pavey N, van den Bos M, et al. Diagnostic utility of Gold Coast criteria in amyotrophic lateral sclerosis. *Ann Neurol*. 2021;89: 979-986.

⁸ The ALS C.A.R.E. Program. Center for Outcomes Research, University of Massachusetts Medical School. Published online at alspathways.com/wp-content/themes/alspathways/assets/pdf/ALS-Functional-Rating-Scale-Revised-Guide.pdf by Mitsubishi Tanabe Pharma America in 2017. Accessed March 14, 2022.

⁹ Miller RG, et al and the Quality Standards Subcommittee of the American Academy of Neurology. Practice parameter update: The care of the patient with amyotrophic lateral sclerosis: drug, nutritional, and respiratory therapies (an evidence-based review): Report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology*. 2009 Oct 13;73(15):1218-26. Erratum in: *Neurology*. 2009 Dec 15;73(24):2134. Erratum in: *Neurology*. 2010 Mar 2;74(9):781. PMID: 19822872. *Reaffirmed in 2020*.

¹⁰ Miller RG, et al and the Quality Standards Subcommittee of the American Academy of Neurology. Practice parameter update: The care of the patient with amyotrophic lateral sclerosis: multidisciplinary care, symptom management, and cognitive/behavioral impairment (an evidence-based review): Report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology*. 2009 Oct 13;73(15):1227-33. PMID: 19822873. *Reaffirmed in 2020*.

Development of utilization management criteria may also involve research into other state Medicaid programs, other payer policies, consultation with experts and review by the Medicaid Clinical Advisory Committee (CAC). These sources may not be referenced individually unless they are specifically published and are otherwise applicable to the criteria at issue.

Criteria Change History

Change Date	Changed By	Description of Change	Version
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[mm/dd/yyyy]

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Change Date	Changed By	Description of Change	Version
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04/19/2024	CAC	Annual review. Updated references.	4
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Signature

William (Bill) Jagiello, DO



Change Date	Changed By	Description of Change	Version
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04/21/2023	CAC	Annual review. Changed policy effective date to 7/1/2021 (was 10/20/17 but code wasn't open on fee schedule until 7/1/21; changed effective date to match code). Added statement under Overview table: "Radicava ORS [®] , an edaravone oral suspension, was approved by the FDA on May 12, 2022. This product is self-administered and would not be covered under the medical benefit. Criteria in this policy only applies to Radicava, the intravenous infusion." Updated references.	3
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Change Date	Changed By	Description of Change	Version
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04/15/2022	CAC	Criteria rewrite.	2
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Signature

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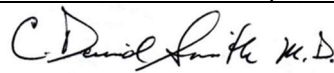


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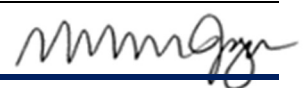
10/20/2017	Medical Director	Criteria development.	1
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Signature

C. David Smith, MD



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CAC = Medicaid Clinical Advisory Committee