Clinical Policy: Casimersen (Amondys 45)

Reference Number: PA.CP.PHAR.470
Effective Date: 04/2021
Last Review Date: 01/2025

Description
Casimersen (Amondys 45®) is an antisense oligonucleotide.

FDA Approved Indication(s)
Amondys 45 is indicated for the treatment of Duchenne muscular dystrophy (DMD) in patients who have a confirmed mutation of the DMD gene that is amenable to exon 45 skipping.

Limitation(s) of use: This indication is approved under accelerated approval based on an increase in dystrophin production in skeletal muscle observed in patients treated with Amondys 45. Continued approval for this indication may be contingent upon verification of a clinical benefit in confirmatory trials.

Policy/Criteria
Provider must submit documentation (such as office chart notes, lab results or other clinical information) supporting that member has met all approval criteria.

All requests reviewed under this policy may **require medical director review.**

It is the policy of PA Health & Wellness® that Amondys 45 may be **medically necessary*** when the following criteria are met:

**** Amondys 45 was FDA-approved based on an observed increase in dystrophin in skeletal muscle, but it is unknown if that increase is clinically significant. Continued FDA-approval for this indication may be contingent upon verification of a clinical benefit in confirmatory trials.***

I. Initial Approval Criteria

A. Duchenne Muscular Dystrophy (must meet all)**:**

1. Diagnosis of DMD with mutation amenable to exon 45 skipping (*see Appendix D*) confirmed by genetic testing;
2. Prescribed by or in consultation with a neurologist;
3. Member has documentation of a baseline evaluation, including a standardized assessment of motor function, by a neurologist with experience treating Duchenne muscular dystrophy;
4. Amondys 45 is prescribed concurrently with an oral corticosteroid, unless contraindicated or clinically significant adverse effects are experienced;
5. Amondys 45 is not prescribed concurrently with other exon-skipping therapies (e.g., Exondys 51®, Vyondys 53®, Viltepso®);
6. Dose does not exceed 30 mg/kg per week.

Approval duration: 6 months

NOTE: The member does not meet the clinical review guidelines listed above, but, in the professional judgment of the physician reviewer, the services are medically necessary to meet the medical needs of the member.

II. Continued Therapy

A. Duchenne Muscular Dystrophy (must meet all)**:**

1. Currently receiving medication via PA Health & Wellness benefit and documentation supports positive response to therapy or the Continuity of Care policy (PA.PHARM.01) applies;
2. Member has been assessed by a neurologist within the last 12 months;
3. Member has documentation of an annual evaluation, including an assessment of motor function ability;
4. Member continues to benefit based on prescriber's assessment;
5. Amondys 45 is prescribed concurrently with an oral corticosteroid, unless contraindicated or clinically significant adverse effects are experienced;
6. Amondys 45 is not prescribed concurrently with other exon-skipping therapies (e.g., Exondys 51, Vyondys 53, Viltepso);
7. If request is for a dose increase, new dose does not exceed 30 mg/kg per week.

Approval duration: 6 months

NOTE: The member does not meet the clinical review guidelines listed above, but, in the professional judgment of the physician reviewer, the services are medically necessary to meet the medical needs of the member.

III. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

6MWT: 6-minute walk test
DMD: Duchenne muscular dystrophy
FDA: Food and Drug Administration
FVC: forced vital capacity
ICER: Institute for Clinical and Economic Review
LVEF: left ventricular ejection fraction

Appendix B: Therapeutic Alternatives

This table provides a listing of preferred alternative therapy recommended in the approval criteria. The drugs listed here may not be a formulary agent and may require prior authorization.

Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
prednisone*	0.3-0.75 mg/kg/day or 10 mg/kg/weekend	Based on weight
Emflaza®(deflazacort)	0.9 mg/kg/day orally once daily	Based on weight
Agamree® (vamorolone)	6 mg/kg/day PO QD (up to a maximum of 300 mg/day) • If member has mild (Child-Pugh A) to moderate (Child-Pugh B) hepatic impairment: 2 mg/kg/day PO QD (up to a maximum of 100 mg/day)	See regimen

Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
	• If co-administered with strong CYP3A4 inhibitors (e.g., itraconazole): 4 mg/kg/day PO QD (up to a maximum of 200 mg/day)	

Therapeutic alternatives are listed as Brand name® (generic) when the drug is available by brand name only and generic (Brand name®) when the drug is available by both brand and generic.
**Off-label*

Appendix C: Contraindications/Boxed Warnings

- Contraindication(s): serious hypersensitivity to casimersen or to any of the inactive ingredients in Amondys 54
- Boxed warning(s): none reported

Appendix D: General Information

- Common mutations amenable to exon 45 skipping include: 7-44, 12-44, 18-44, 44, 46, 46-47, 46-48, 46-49, 46-51, 46-53, 46-55, 46-57, 46-59. 46-60, 46-67, 46-69, 46-75, 46-78.
- Corticosteroids are routinely used in DMD management with established efficacy in slowing decline of muscle strength and function (including motor, respiratory, and cardiac). They are recommended for all DMD patients per the American Academy of Neurology (AAN) and DMD Care Considerations Working Group; in addition, the AAN guidelines have been endorsed by the American Academy of Pediatrics, the American Association of Neuromuscular & Electrodiagnostic Medicine, and the Child Neurology Society.
  - The DMD Care Considerations Working Group guidelines, which were updated in 2018, continue to recommend corticosteroids as the mainstay of therapy.
  - In an evidence report published August 2019, the Institute for Clinical and Economic Review (ICER) states that current evidence is insufficient to conclude that other exon-skipping therapies (Exondys 51, Vyondys 53) have net clinical benefit when added to corticosteroids and supportive care versus corticosteroids and supportive care alone.
- Prednisone is the corticosteroid with the most available evidence. A second corticosteroid commonly used is deflazacort, which was FDA approved for DMD in February 2017. On October 2023, a third corticosteroid, vamorolone, was approved by the FDA for DMD.
- The inclusion criteria for the ESSENCE study (NCT02500381) used to support the FDA approval of casimersen enrolled male patients age 7-13 years old with a mean 6MWT distance of 300 m or more at screening and baseline visits and stable pulmonary function with %pFVC ≥ 50%.
- Having an LVEF below 40% may indicate presence of cardiomyopathy or heart failure.

IV. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
DMD	30 mg/kg IV once weekly	30 mg/kg/week

V. Product Availability

Single-dose vial: 100 mg/2 mL

VI. References

1. Amondys 45 Prescribing Information. Cambridge, MA: Sarepta Therapeutics, Inc.; July 2024. Available at: https://amondys45.com/Amondys45_(casimersen)_Prescribing_Information.pdf. Accessed October 25, 2024.
2. ClinicalTrials.gov. Study of SRP-4045 and SRP-4053 in DMD patients (ESSENCE). Available at: https://clinicaltrials.gov/ct2/show/NCT02500381. Accessed October 31, 2024.
3. Birnkrant DJ, Bushby K, Bann CM, et al. Diagnosis and management of Duchenne muscular dystrophy, part 1: diagnosis, and neuromuscular, rehabilitation, endocrine, and gastrointestinal and nutritional management. Lancet Neurol. 2018; 17: 251-267.
4. Gloss D, Moxley RT, Ashwal S, Oskoui M. Practice guideline update summary: corticosteroid treatment of Duchenne muscular dystrophy. Neurology. 2016; 86: 465-472. Reaffirmed on January 22, 2022.
5. Institute for Clinical and Economic Review. Deflazacort, eteplirsen, and golodirsen for Duchenne muscular dystrophy: Effectiveness and value. Published August 15, 2019. Available at: https://icer.org/wp-content/uploads/2020/10/Corrected_ICER_DMD-Final-Report_042222.pdf. Accessed October 31, 2024.
6. CureDuchenne. Exon skipping. Available at: https://www.cureduchenne.org/cure/exon-skipping. Accessed October 31, 2024.

Coding Implications

Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

HCPCS Codes	Description
J1426	Injection, casimersen, 10mg

Reviews, Revisions, and Approvals	Date
Policy Created	04/2021
1Q 2022 annual review: updated Coding Implications section; references reviewed and updated.	01/2022
1Q 2023 annual review: no significant changes; updated HCPCS code; references reviewed and updated.	01/2023
1Q 2024 annual review: updated format to match standard PAHW structure; added Agamree to list of corticosteroids in Appendix B; references reviewed and updated.	01/2024
1Q 2025 annual review: no significant changes; updated Appendix C with new contraindication per PI; references reviewed and updated.	01/2025