Medical Policy

Utilization Management and Clinical Medical Policy

Policy Name:	Policy Number:	Scope:	Origination Date:	Effective Date:
Golodirsen (Vyondys 53®)	**MP-RX-FP-183-26**	☒ **MMM MA** ☒ **MMM MultiHealth**	**5/6/2026** **Last Review Date:** **5/6/2026**	**5/6/2026** **Frequently Revision:** **Annual**

Service Category:

- ☐ Anesthesia
- ☐ Surgery
- ☐ Radiology Procedures
- ☐ Pathology and Laboratory Procedures
- ☐ Medicine Services and Procedures
- ☐ Evaluation and Management Services
- ☐ DME/Prosthetics or Supplies
- ☒ Other: Part B Drugs

Service Description:

This document addresses the use of Vyondys 53® (golodirsen), a phosphorodiamidate morpholino oligomer (PMO) in the treatment of Duchenne muscular dystrophy (DMD) with a mutation amenable to exon 53 skipping. DMD is a genetic disorder characterized by decrease in muscle mass over time, including progressive damage and weakness of facial, limb, respiratory and heart muscles. In DMD patients, dystrophin, a protein that is present in skeletal and heart muscles allowing the muscles to function properly, is either absent or found in very small amounts. In theory, exon 53 skipping allows for the creation of a shorter-than-normal, but partially functional, dystrophin protein in patients with a specific type of DMD mutation.

Background Information:

The presence of exon 53 in the dystrophin gene and the deletion of one or more exons contiguous with exon 53, resulting in an out-offrame deletion in which the reading frame is potentially restorable by the skipping (removing) of exon-53 as confirmed in a Clinical Laboratory Improvement Act-accredited laboratory by any of the peer-reviewed and published methodology that evaluates all exons (including, but not limited to, multiplex ligation-dependent probe, comparative genomic hybridization, and single condition amplification/internal primer analysis).

Vyondys 53 is FDA approved for the treatment of DMD with a mutation amenable to exon 53 skipping. Vyondys 53 was approved under accelerated approval based on an increase in dystrophin production in skeletal muscle observed. Golodirsen was studied in Phase I/II trials in 39 patients. Patients were all male and age 6-15 years. Inclusion criteria included the requirement of a minimum performance on 6MWT (6-minute walk test), North Star Ambulatory Assessment and rise (Gowers) test. Results were presented at the 2018 American Academy of Neurology conference as an abstract. The results showed an increase in dystrophin in the study participants, with an increase from 0.095% at baseline to 1.019% at week 48. It is yet to be determined whether the increase in dystrophin production translates into clinical benefit. Continued approval for Vyondys 53 may be contingent upon verification of a clinical benefit in confirmatory trials. The recommended dose of Vyondys 53 is 30 mg per kilogram administered once weekly as a 35–60-minute infusion.

Vyondys 53 was FDA-approved four months after receiving a complete response (denial) letter from the FDA. A Phase 3 confirmatory trial (ESSENCE) is ongoing and is estimated to be completed in October of 2025. The FDA initially denied the new drug application due to safety concerns including infection at the infusion site and pre-clinical renal toxicity. The manufacturer responded to safety concerns noting that the signal for renal toxicity came from pre-clinical trials at high doses. The Phase I/II clinical trial has not demonstrated renal toxicity in patients taking Vyondys 53 over 48 weeks. Because animal data showed a possible increase in the risk of renal toxicity, renal function should be monitored. Per the label for Vyondys 53, the measurement of renal function should be done via measurement of glomerular filtration rate (GFR) by 24-hour urine collection prior to initiation of therapy. Monitoring should be done monthly for proteinuria and every three months for serum cystatin C. If

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proteinuria of 2+ or greater or elevated serum cystatin C is found, a 24-hour urine collection to quantify proteinuria and assess GFR should be performed.

Approved Indications

A. Treatment of Duchenne muscular dystrophy (DMD) in patients who have a confirmed mutation of the DMD gene that is amenable to exon 53 skipping. This indication is approved under accelerated approval based on an increase in dystrophin production in skeletal muscle observed in patients treated with VYONDYS 53. Continued approval for this indication may be contingent upon verification of a clinical benefit in confirmatory trials.

Other Uses

A. None.

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Medical Necessity Guidelines:

When a drug is being reviewed for coverage under a member's medical benefit plan or is otherwise subject to clinical review (including prior authorization), the following criteria will be used to determine whether the drug meets any applicable medical necessity requirements for the intended/prescribed purpose.

Vyondys 53® (golodirsen)

A. Criteria For Initial Approval (*Provider must submit documentation [such as office chart notes, lab results, pathology reports, imaging studies, and any other pertinent clinical information] supporting the patient's diagnosis for the drug and confirming that the patient has met **all** approval criteria.)*

Initial requests for Vyondys 53 (golodirsen) may be approved if the following criteria are met:

i. Individual has a diagnosis of Duchenne muscular dystrophy (DMD); **AND**
ii. Documentation is provided that individual has a genetic mutation that is amenable to exon 53 skipping; **AND**
iii. Individual is age 6-15 years (NCT02310906, Study 4053-101; Frank 2020); **AND**
iv. Individual is using a corticosteroid; **AND**
    a. Individual is on a stable dose (or dose equivalent) of oral corticosteroids for ≥24 weeks prior to initiation, unless contraindicated or not tolerated; **AND**
v. Individual is ambulatory at baseline; **AND**
vi. Documentation is provided that individual has a 6MWT (6-minute walk test) ≥ 250m (NCT02310906, Study 4053-101; Frank 2020); **AND**
    a. 6MWT performed within the past 6 months; include test date and distance; **AND**
vii. One of the following:
    A. NorthStar Ambulatory Assessment (NSAA) total > 17 (NCT02310906, Study 4053-101, Frank 2020), and documentation is provided; **OR**
    B. Rise (Gowers) time of < 7 seconds (NCT02310906, Study 4053-101, Frank 2020); **AND**
        a. NSAA/Rise time performed within the past 6 months; include test date and value.
viii. Renal safety monitoring (per FDA labeling):
    a. Baseline serum cystatin C, urine dipstick, and urine protein-to-creatinine ratio are obtained prior to initiation; **AND**
    b. Prescriber attests to ongoing monitoring: urine dipstick monthly, and serum cystatin C and urine protein-to-creatinine ratio every 3 months.

B. Criteria For Continuation of Therapy

i. MMM considers continuation of Vyondys 53 (golodirsen) therapy medically necessary in members requesting reauthorization for an indication listed in Section A Above (Criteria for Initial Approval) if the following criterion are met:
    A. Criteria above were met at initiation of therapy; **AND**

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B. Documentation is provided that individual remains ambulatory (with or without needing an assistive device, including but not limited to a cane or walker).
C. Documentation supports ongoing renal safety monitoring consistent with FDA labeling (urine dipstick monthly; serum cystatin C and urine protein-to-creatinine ratio every 3 months).

C. Authorization Duration

i. Initial Approval Duration: 6 months
ii. Reauthorization Approval Duration: 6 months

D. Conditions Not Covered

Any other use is considered experimental, investigational, or unproven, including the following (this list may not be all inclusive):

i. Requests for Vyondys 53 may not be approved when the above criteria (Section A: Criteria for Initial Approval) are not met and for all other indications:

a. Concomitant use with another exon skipping agent for DMD (including but not limited to Exondys 51, Amondys 45).

Limits or Restrictions:

A. Therapeutic Alternatives

The list below includes preferred alternative therapies recommended in the approval criteria and may be subject to prior authorization.

i. N/A

B. Quantity Limitations

Approvals may be subject to dosing limits in accordance with FDA-approved labeling, accepted compendia, and/or evidence-based practice guidelines. The chart below includes dosing recommendations as per the FDA-approved prescribing information.

Dosage Forms and Strentgths	Recommended Dosing/Limits
Vyondys 53® injection 100 mg/2 mL (50 mg/mL) single-dose vial	• 30 mg/kg once weekly
Exceptions	
None	

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Codes Information:

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement policy. Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

ICD-10 Diagnostic Codes:

Codes	Description
G71.01	Duchenne or Becker muscular dystrophy

HCPCS Codes:

Codes	Description
J1429	Injection, golodirsen 10 mg [Vyondys 53]

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Reference Information:

1. DailyMed. Package inserts. U.S. National Library of Medicine, National Institutes of Health website. http://dailymed.nlm.nih.gov/dailymed/about.cfm.
2. DrugPoints® System [electronic version]. Truven Health Analytics, Greenwood Village, CO. Updated periodically.
3. Lexi-Comp ONLINE™ with AHFS™, Hudson, Ohio: Lexi-Comp, Inc.; 2025; Updated periodically.
4. Frank, DE, Schnell FJ, Akana C, et.al. Increased dystrophin production with golodirsen in patients with Duchenne muscular dystrophy. Neurology. 2020;94:e2270-e2282. Doi:10.1212/WNL.0000000000009233. Available from: https://n.neurology.org/content/neurology/94/21/e2270.full.pdf.
5. Kole R, Krieg AM. Exon skipping therapy for Duchenne muscular dystrophy. Ad Drug Del Rev. 2015; 87:140-107.
6. Muntoni F, Frank D, Sarone V, et.al. Golodirsen Induces Exon Skipping Leading to Sarcolemmal Dystrophin Expression in Duchenne Muscular Dystrophy Patients With Mutations Amenable to Exon 53 Skipping (S22.001). Neurology Apr 2018, 90 (15 Supplement) S22.001.
7. Shieh PB. Golodirsen Induces Exon Skipping Leading to Sarcolemmal Dystrophin Expression in Patients With Genetic Mutations Amenable to Exon 53 Skipping. Presented at: Carrell-Krusen Neuromuscular Symposium, February 22–23, 2018; Dallas, TX.
8. Servais L, Mercuri E, Straub V, et al. Long-Term Safety and Efficacy Data of Golodirsen in Ambulatory Patients with Duchenne Muscular Dystrophy Amenable to Exon 53 Skipping: A First-in-human, Multicenter, Two-Part, Open-Label, Phase 1/2 Trial. Nucleic Acid Ther. 2022;32(1):29-39. doi:10.1089/nat.2021.0043.

Federal and state laws or requirements, contract language, and Plan utilization management programs or polices may take precedence over the application of this clinical criteria.

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Policy History:

Type of Review	Summary of Changes	P&T Approval Date	UM/CMPC Approval Date
Policy Inception	Elevance Health's Medical Policy adoption.	5/1/2026	5/6/2026