Clinical Policy: Golodirsen (Vyondys 53)
Reference Number: CP.PHAR.453
Effective Date: 03.01.20
Last Review Date: 02.20
Line of Business: Commercial, HIM, Medicaid

See Important Reminder at the end of this policy for important regulatory and legal information.

Description
Golodirsen (Vyondys 53™) is an antisense oligonucleotide.

FDA Approved Indication(s)
Vyondys 53 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 53 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 Vyondys 53. 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.

It is the policy of health plans affiliated with Centene Corporation® that Vyondys 53 may be medically necessary* when the following criteria are met:

* Vyondys 53 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 53 skipping (see Appendix D) confirmed by genetic testing;
   2. Age ≤ 15 years at therapy initiation;
   3. Prescribed by or in consultation with a neurologist;
   4. Member has all of the following assessed within the last 30 days (a, b, and c):
      a. Ambulatory function (e.g., ability to walk with or without assistive devices, not wheelchair dependent) with a 6-minute walk test (6MWT) distance ≥ 250 m;
      b. Stable cardiac function with left ventricular ejection fraction (LVEF) > 50%;
      c. Stable pulmonary function with predicted forced vital capacity (FVC) ≥ 50%;
   5. Inadequate response (as evidenced by a significant decline in 6MWT, LVEF, or FVC) despite adherent use of an oral corticosteroid (e.g., prednisone, Emflaza™) for ≥ 6
month, unless contraindicated or clinically significant adverse effects are experienced;

*Prior authorization is required for Emflaza

6. Vyondys 53 is prescribed concurrently with an oral corticosteroid, unless contraindicated or clinically significant adverse effects are experienced;

7. Vyondys 53 is prescribed concurrently with other exon-skipping therapies (e.g., Exondys 51);

8. Dose does not exceed 30 mg/kg per week.

**Approval duration: 6 months**

II. Continued Therapy

A. Duchenne Muscular Dystrophy (must meet all):

1. Currently receiving medication via Centene benefit or member has previously met initial approval criteria;

2. Member is responding positively to therapy as evidenced by all of the following assessed within the last 30 days (a, b, and c):
   a. Ambulatory function (e.g., ability to walk with or without assistive devices, not wheelchair dependent) with a 6-minute walk test (6MWT) distance ≥ 250 m;
   b. Stable cardiac function with LVEF > 50%;
   c. Stable pulmonary function with predicted forced vital capacity FVC ≥ 50% ;

3. Vyondys 53 is prescribed concurrently with an oral corticosteroid, unless contraindicated or clinically significant adverse effects are experienced;

4. Vyondys 53 is not prescribed concurrently with other exon-skipping therapies (e.g., Exondys 51);

5. If request is for a dose increase, new dose does not exceed 30 mg/kg per week.

**Approval duration: 6 months**

III. Diagnoses/Indications for which coverage is NOT authorized:

A. Refer to the off-label use policy for the relevant line of business if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized): CP.CPA.09 for commercial, HIM.PHAR.21 for health insurance marketplace, and CP.PMN.53 for Medicaid.

IV. Appendices/General Information

*Appendix A: Abbreviation/Acronym Key*

<table>
<thead>
<tr>
<th>Abbreviation/Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6MWT</td>
<td>6-minute walk test</td>
</tr>
<tr>
<td>DMD</td>
<td>Duchenne muscular dystrophy</td>
</tr>
<tr>
<td>FDA</td>
<td>Food and Drug Administration</td>
</tr>
<tr>
<td>FVC</td>
<td>forced vital capacity</td>
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</table>

*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 for all relevant lines of business and may require prior authorization.
<table>
<thead>
<tr>
<th>Drug Name</th>
<th>Dosing Regimen</th>
<th>Dose Limit/Maximum Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>prednisone*</td>
<td>0.3-0.75 mg/kg/day or 10 mg/kg/weekend</td>
<td>Based on weight</td>
</tr>
<tr>
<td>Emflaza™ (deflazacort)</td>
<td>0.9 mg/kg/day orally once daily</td>
<td>Based on weight</td>
</tr>
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</table>

*Off-label

**Appendix C: Contraindications/Boxed Warnings**
None reported

**Appendix D: General Information**


- Examples of positive response to Vyondys 53 therapy include but are not limited to:
  - Increased dystrophin levels
  - Improvement in 6MWT distance
  - Rise from supine
  - Ability to ambulate
  - Time to wheelchair use
  - Quality of life surveys
  - Respiratory parameters (e.g., predicted FVC, predicted peak cough flow)
  - Objective muscle strength exams (e.g., evaluated on a scale of 0-5, with 0 being no motion and 5 being full strength)

- Delayed disease progression may be determined by comparing patient data against natural history cohort data. Historically, DMD patients have an annual decrease in FVC of 5% and an annual decrease in maximum inspiratory pressure and maximum expiratory pressure of 4%. Furthermore, 50% of DMD patients lose ambulation by 12.5 years of age.

- 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 Vyondys 53 has 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.
• 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.
• The inclusion criteria for Study 4053-US-101 (NCT02310906) used to support the FDA approval of Vyondys 53 enrolled male patients age 6-15 years old with a mean 6MWT distance of 250 m or more at screening and baseline visits, LVEF ≥ 50% based on screening echocardiogram (ECHO), and stable pulmonary function with %pFVC ≥ 50%.

V. Dosage and Administration

<table>
<thead>
<tr>
<th>Indication</th>
<th>Dosing Regimen</th>
<th>Maximum Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMD</td>
<td>30 mg/kg IV once weekly</td>
<td>30 mg/kg</td>
</tr>
</tbody>
</table>

VI. Product Availability

Single-dose vial for injection: 100 mg/2 mL (50 mg/mL)

VII. References
## Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. “Health Plan” means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan’s affiliates, as applicable.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable Health Plan-level administrative policies and procedures.

This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. The Health Plan retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members. This clinical policy is not intended to recommend treatment for members. Members should consult with their treating physician in connection with diagnosis and treatment decisions.

Providers referred to in this clinical policy are independent contractors who exercise independent judgment and over whom the Health Plan has no control or right of control. Providers are not agents or employees of the Health Plan.

### Reviews, Revisions, and Approvals

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>P&amp;T Approval Date</th>
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</thead>
<tbody>
<tr>
<td>Policy created</td>
<td>01.05.20</td>
<td>02.20</td>
</tr>
<tr>
<td>PA criteria added for coverage consideration when medically necessary.</td>
<td>02.13.20</td>
<td>02.20 (ad hoc)</td>
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</table>
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herein through the terms of their contracts. Where no such contract exists, providers, members
and their representatives agree to be bound by such terms and conditions by providing services to
members and/or submitting claims for payment for such services.

Note:
For Medicaid members, when state Medicaid coverage provisions conflict with the coverage
provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please
refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

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