

## **Clinical Policy: Lanadelumab-fylo (Takhzyro)**

Reference Number: CP.PHAR.396

Effective Date: 12.01.18

Last Review Date: 02.21

Line of Business: Commercial, HIM, Medicaid

[Coding Implications](#)

[Revision Log](#)

See [Important Reminder](#) at the end of this policy for important regulatory and legal information.

### **Description**

Lanadelumab-fylo (Takhzyro<sup>™</sup>) is a human monoclonal antibody that inhibits the proteolytic activity of kallikrein to reduce the generation of bradykinin.

### **FDA Approved Indication(s)**

Takhzyro is indicated for prophylaxis to prevent attacks of hereditary angioedema (HAE) in patients 12 years and older.

### **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<sup>®</sup> that Takhzyro is **medically necessary** when the following criteria are met:

#### **I. Initial Approval Criteria**

##### **A. Hereditary Angioedema (must meet all):**

1. Diagnosis of HAE confirmed by one of the following (a or b):
  - a. Low C4 level and low C1-INH antigenic or functional level (*see Appendix D*);
  - b. Normal C4 level and normal C1-INH level, and both of the following (i and ii):
    - i. History of recurrent angioedema;
    - ii. Family history of angioedema;
2. Prescribed by or in consultation with an allergist, hematologist, or immunologist;
3. Age  $\geq$  12 years;
4. Member meets one of the following (a, b, or c):
  - a. Member experiences more than one severe event per month;
  - b. Member is disabled more than five days per month;
  - c. Member has history of previous airway compromise;
5. Member is not using Takhzyro in combination with another FDA-approved product for long-term prophylaxis of HAE attacks (e.g., Cinryze<sup>®</sup>, Haegarda<sup>®</sup>, Orladeyo<sup>™</sup>);
6. Dose does not exceed 300 mg every 2 weeks.

##### **Approval duration:**

**Medicaid/HIM** – 6 months

**Commercial** – 6 months or to the member's renewal date, whichever is longer

**B. Other diagnoses/indications**

1. 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.PA.154 for health insurance marketplace, and CP.PMN.53 for Medicaid.

**II. Continued Therapy**

**A. Hereditary Angioedema (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 reduction in attacks from baseline;
3. Member is not using Takhzyro in combination with another FDA-approved product for long-term prophylaxis of HAE attacks (e.g., Cinryze, Haegarda, Orladeyo);
4. Request is for 300 mg every 4 weeks, unless documentation supports member is not well-controlled (e.g., attack(s) within the last 6 months);
5. If request is for a dose increase, new dose does not exceed 300 mg every 2 weeks.

**Approval duration:**

**Medicaid/HIM** – 12 months

**Commercial** – 6 months or to the member’s renewal date, whichever is longer

**B. Other diagnoses/indications (must meet 1 or 2):**

1. Currently receiving medication via Centene benefit and documentation supports positive response to therapy.

**Approval duration: Duration of request or 6 months (whichever is less);** or

2. 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.PA.154 for health insurance marketplace, and CP.PMN.53 for Medicaid.

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

- A.** Non-FDA approved indications, which are not addressed in this policy, unless there is sufficient documentation of efficacy and safety according to the off label use policies – CP.CPA.09 for commercial, HIM.PA.154 for health insurance marketplace, and CP.PMN.53 for Medicaid or evidence of coverage documents.

**IV. Appendices/General Information**

*Appendix A: Abbreviation/Acronym Key*

CI-INH: C1 esterase inhibitor

C4: complement component 4

FDA: Food and Drug Administration

HAE: Hereditary Angioedema

*Appendix B: Therapeutic Alternatives*

Not applicable

*Appendix C: Contraindications/Boxed Warnings*

None reported

*Appendix D: General Information*

- Diagnosis of HAE:
  - There are two classifications of HAE: HAE with C1-INH deficiency (further broken down into Type I and Type II) and HAE of unknown origin (also known as Type III).
  - In both Type I (~85% of cases) and Type II (~15% of cases), C4 levels are low. C1-INH antigenic levels are low in Type I while C1-INH functional levels are low in Type II. Diagnosis of Type I and II can be confirmed with laboratory tests. Reference ranges for C4 and C1-INH levels can vary across laboratories (see below for examples); low values confirming diagnosis are those which are below the lower end of normal.

Laboratory			
Test & Reference Range	Mayo Clinic	Quest Diagnostics	Lab Corp
C4	14 – 40 mg/dL	16 – 47 mg/dL	13 – 44 mg/dL
C1-INH, antigenic	19 – 37 mg/dL	21 – 39 mg/dL	21 – 39 mg/dL
C1-INH, functional	Normal: > 67% Equivocal: 41 – 67% Abnormal: < 41%	Normal: ≥ 68% Equivocal: 41 – 67% Abnormal: ≤ 40%	Normal: > 67% Equivocal: 41 – 67% Abnormal: < 41%

- Type III, on the other hand, presents with normal C4 and C1-INH levels. Some patients have an associated mutation in the FXII gene, while others have no identified genetic indicators. Type III is very rare (number of cases unknown), and there are no laboratory tests to confirm the diagnosis. Instead the diagnosis is clinical and supported by recurrent episodes of angioedema with a strong family history of angioedema.

**V. Dosage and Administration**

Indication	Dosing Regimen	Maximum Dose
HAE attack prophylaxis	300 mg SC every 2 weeks  A dosing interval of 300 mg every 4 weeks may be considered if the patient is well-controlled (e.g., attack free) for more than 6 months	300 mg SC every 2 weeks

**VI. Product Availability**

Injection: 300 mg/2 mL (150 mg/mL) solution in single dose vial

**VII. References**

1. Takhzyro Prescribing Information. Lexington, MA: Shire ViroPharma Incorporated; November 2018. Available at: <https://www.Takhzyro.com/>. Accessed October 8, 2020.
2. Maurer M, Mager M, Ansotegui I, et al. The International WAO/ESSCI guideline for the management of hereditary angioedema – the 2017 revision and update. *World Allergy Organ J.* 2018; 11:5

3. Cicardi M, Aberer W, Banerji A, et al. Classification, diagnosis, and approach to treatment for angioedema: consensus report from the Hereditary Angioedema International Working Group. *Allergy*. 2014; 69(5): 602-616.
4. Zuraw B, Bernstein J, Lang D. A focused parameter update: Hereditary angioedema, acquired C1 inhibitor deficiency, and angiotensin-converting enzyme inhibitor-associated angioedema. *J Allergy Clin Immunol*. 2013; 131(6): 1491-3.
5. Mayo Clinic Laboratories [internet database]. Rochester, Minnesota: Mayo Foundation for Medical Education and Research. Updated periodically. Accessed November 4, 2019.
6. Quest Diagnostics ® [internet database]. Updated periodically. Accessed November 4, 2019.
7. LabCorp [internet database]. Burlington, North Carolina: Laboratory Corporation of America. Updated periodically. Accessed November 4, 2019.

**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
J0593	Injection, lanadelumab-flyo, 1 mg

Reviews, Revisions, and Approvals	Date	P&T Approval Date
Policy created	09.25.18	11.18
1Q 2019 annual review: added requirement that member is not using requested product in combination with other approved products for the long-term prophylaxis of HAE attacks; references reviewed and updated.	11.19.18	02.19
Added HIM line of business per SDC and prior approved clinical guidance.	04.01.19	
1Q 2020 annual review: HAE lab reference range updated; removed rheumatologist specialty for alignment; revised dosing criteria for dose reduction if member is well-controlled per PI; added coding implications; references reviewed and updated.	11.04.19	02.20
1Q 2021 annual review: no significant changes; references reviewed and updated.	10.08.20	02.21

**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

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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.

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**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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