

# **Medical Policy:**

## Cinryze® (C1 esterase inhibitor, human) intravenous

POLICY NUMBER	LAST REVIEW	ORIGIN DATE
MG.MM.PH.75	March 11, 2025	

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The treating physician or primary care provider must submit to EmblemHealth, or ConnectiCare, as applicable (hereinafter jointly referred to as "EmblemHealth"), the clinical evidence that the member meets the criteria for the treatment or surgical procedure. Without this documentation and information, EmblemHealth will not be able to properly review the request preauthorization or post-payment review. The clinical review criteria expressed below reflects how EmblemHealth determines whether certain services or supplies are medically necessary. This clinical policy is not intended to pre-empt the judgment of the reviewing medical director or dictate to health care providers how to practice medicine. Health care providers are expected to exercise their medical judgment in rendering appropriate care.

EmblemHealth established the clinical review criteria based upon a review of currently available clinical information (including clinical outcome studies in the peer reviewed published medical literature, regulatory status of the technology, evidence-based guidelines of public health and health research agencies, evidence-based guidelines and positions of leading national health professional organizations, views of physicians practicing in relevant clinical areas, and other relevant factors). EmblemHealth expressly reserves the right to revise these conclusions as clinical information changes and welcomes further relevant information. Each benefit program defines which services are covered. The conclusion that a particular service or supply is medically necessary does not constitute a representation or warranty that this service or supply is covered and/or paid for by EmblemHealth, as some programs exclude coverage for services or supplies that EmblemHealth considers medically necessary.

If there is a discrepancy between this guideline and a member's benefits program, the benefits program will govern. Identification of selected brand names of devices, tests and procedures in a medical coverage policy is for reference only and is not an endorsement of any one device, test or procedure over another. In addition, coverage may be mandated by applicable legal requirements of a state, the Federal Government or the Centers for Medicare & Medicaid Services (CMS) for Medicare and Medicaid members. All coding and web site links are accurate at time of publication.

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## **Length of Authorization**

Coverage will be provided for 12 months and may be renewed.

## **Dosing Limits [Medical Benefit]**

### Max Units (per dose and over time):

2,000 billable units per 30 days

#### Guideline

- I. Initial Approval Criteria
- 1. Prophylaxis against angioedema attacks of Hereditary Angioedema (HAE) †
  - A. Must be prescribed by, or in consultation with, a specialist in: allergy, immunology, hematology, pulmonology, or medical genetics; **AND**
  - B. Patient must be at least 6 years of age; AND
  - C. Not used in combination with C1 inhibitor prophylaxis (e.g., Haegarda or Takhzyro); AND
  - D. Confirmation the patient is avoiding the following possible triggers for HAE attacks:

- i. Estrogen-containing oral contraceptive agents AND hormone replacement therapy; AND
- ii. Antihypertensive agents containing ACE inhibitors; AND
- iii. Dipeptidyl peptidase IV (DPP-IV) inhibitors (e.g., sitagliptin); AND
- iv. Neprilysin inhibitors (e.g., sacubitril); AND
- E. Patient has one of the clinical presentations listed below consistent with a HAE subtype§, which must be confirmed by repeat blood testing (treatment for acute attack should not be delayed for confirmatory testing); **AND** 
  - i. Patient is receiving treatment as short-term HAE prophylaxis prior to a procedure (i.e. dental or medical procedure); **OR**
  - ii. Patient has a history of one of the following criteria for long-term HAE prophylaxis:
    - a. History of two (2) or more severe HAE attacks per month (i.e., airway swelling, debilitating cutaneous or gastrointestinal episodes)
    - b. Patient is disabled more than 5 days per month by HAE
    - c. History of at least one laryngeal attack caused by HAE
      - Treatment of patient with "on-demand" therapy (i.e., Kalbitor, Firazyr, Ruconest, or Berinert) did not provide satisfactory control or access to "on-demand therapy" is limited

### HAE I (C1-Inhibitor deficiency) §

- Low C1 inhibitor (C1-INH) antigenic level (C1-INH antigenic level below the lower limit of normal as defined by the laboratory performing the test); **AND**
- Low C4 level (C4 below the lower limit of normal as defined by the laboratory performing the test); AND
- Low C1-INH functional level (C1-INH functional level below the lower limit of normal as defined by the laboratory performing the test); **AND** 
  - o Patient has a family history of HAE; **OR**
  - Acquired angioedema has been ruled out (i.e., patient onset of symptoms occur prior to 30 years of age, normal C1q levels, patient does not have underlying disease such as lymphoma or benign monoclonal gammopathy [MGUS], etc.)

### **HAE II (C1-Inhibitor dysfunction)**

- Normal to elevated C1-INH antigenic level; AND
- Low C4 level (C4 below the lower limit of normal as defined by the laboratory performing the test); AND
- Low C1-INH functional level (C1-INH functional level below the lower limit of normal as defined by the laboratory performing the test)

#### HAE with normal C1INH (formerly known as HAE III)

- Prophylaxis for HAE with normal C1-INH is not routinely recommended and will be evaluated on a case by case basis
  - o Prior to consideration of long-term prophylaxis, the patient must have demonstrated:
    - An inadequate response or intolerance to an adequate trial of prophylactic therapy with an antifibrinolytic agent (e.g., tranexamic acid (TXA) or aminocaproic acid) and/or a 17αalkylated androgen (e.g., danazol) unless contraindicated. Female patients may derive additional benefit from progestins; AND
    - Response to therapy from an agent indicated for the treatment of acute attacks (i.e., C1
    - esterase inhibitor, icatibant, ecallantide, etc.)

**<sup>†</sup>** FDA Approved Indication(s)

#### II. Renewal Criteria

- 1. Patient continues to meet the criteria in Initial Criteria; AND
- 2. Absence of unacceptable toxicity from the drug. Examples of unacceptable toxicity include the following: severe hypersensitivity reactions, serious thrombotic events, laryngeal attacks, etc.; **AND** 
  - A. Significant improvement in severity and duration of attacks have been achieved and sustained; OR
  - B. Patient requires dose titration due to an inadequate response to therapy (> 1.0 HAE attack/month, regardless of severity/duration)

### **Dosage/Administration**

Indication	Dose			
Hereditary	Adult/adolescents (≥12 years old)			
Angioedema	1,000 units by intravenous injection every 3 to 4 days			
(HAE)	– For patients who have not responded adequately to initial dosing, doses up to 2,500 U (not			
	exceeding 100 U/kg) every 3 or 4 days may be considered based on individual patient response.			
	Pediatric patients (6 to 11 years old)			
	500 units by intravenous injection every 3 to 4 days			
	– The dose may be adjusted according to individual patient response, up to 1,000 U every 3 to 4			
	days.			

### **Limitations/Exclusions**

Cinryze® (C1 Esterase Inhibitor Human) is not considered medically necessary for indications other than those listed above due to insufficient evidence of therapeutic value.

## **Applicable Procedure Codes**

Code	Description
J0598	Injection, C1 esterase inhibitor (human), Cinryze, 10 units

## **Applicable NDCs**

Code	Description	
42227-0081-xx	Cinryze 500 units single-dose vial	

## **ICD-10** Diagnoses

Code	Description
D84.1	Defects in the complement system

## **Revision History**

Company(ies)	DATE	REVISION
EmblemHealth & ConnectiCare		Dosing Limits updated from 2,500 to 2,000. Updated HAE I criteria. Removed -Patient has one of the following clinical presentations consistent with HAE subtype, which must be confirmed by repeat blood testing.

		Replaced with E. Patient has one of the clinical presentations listed below consistent with a HAE subtype§, which must be confirmed by repeat blood testing (treatment for acute attack should not be delayed for confirmatory testing); AND Patient is receiving treatment as short-term HAE prophylaxis prior to a procedure (i.e. dental or medical procedure); OR
EmblemHealth & ConnectiCare	3/22/2024	Annual Review: No criteria changes
EmblemHealth & ConnectiCare	7/20/2023	Annual Review: Updated <u>dosing limits</u> : removed "1,000 billable units per 30 days" Added "2,500 billable units per 30 days" Prophylaxis against angioedema attacks of Hereditary Angioedema (HAE) Initial Criteria: Added "Dipeptidyl peptidase IV (DPP-IV) inhibitors (e.g., sitagliptin); AND Neprilysin inhibitors (e.g., sacubitril); AND" to possible triggers for HAE attacks
EmblemHealth & ConnectiCare	4/06/2022	Transferred policy to new template
EmblemHealth & ConnectiCare	1/1/2020	Annual review

#### References

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