UnitedHealthcare Pharmacy
Clinical Pharmacy Programs

Program Number	2018 P 2031-8
Program	Prior Authorization/Medical Necessity
Medication	Cinryze® (C1 esterase inhibitor, human)
P&T Approval Date	8/2014, 8/2015, 7/2016, 7/2017, 7/2018
Effective Date	10/1/2018; Oxford only: 10/1/2018

1. Background:

Cinryze is a plasma-derived C1 esterase inhibitor (human) indicated for routine prophylaxis against angioedema attacks in adolescent and adult patients with hereditary angioedema (HAE).[1] Clinical evidence also supports the use of Cinryze for the treatment of acute attacks of HAE.[2]

2. Coverage Criteria [a]:

A. Cinryze will be approved based on **all** of the following criteria:

1. Diagnosis of hereditary angioedema (HAE) as confirmed by **one** of the following:[1-3,5]Confirmed monoallelic mutation known to cause HAE in either the SERPING1 or F12 gene

-OR-

2. A C4 level below the lower limit of normal **and ONE** of the following (per laboratory standard):
   a. C1 inhibitor (C1-INH) antigenic level below the lower limit of normal.
   b. C1-INH functional level below the lower limit of normal.

-AND-

3. **One** of the following:

   a. **All** of the following:

      (1) For prophylaxis against HAE attacks[1]

-AND-

      (2) Not used in combination with other approved C1 esterase inhibitors indicated for prophylaxis against HAE attacks (e.g., Haegarda)

-AND-

(3) Prescriber attests that patient has experienced attacks of a severity and/or frequency such that they would clinically benefit from prophylactic therapy with Cinryze

-OR-

b. **Both** of the following:

(1) For treatment of acute HAE attacks[2] (off-label)

-AND-

(2) Not used in combination with other approved treatments for acute HAE attacks (e.g. Berinert, Firazyr, Kalbitor or Ruconest)

-AND-

4. Prescribed by **one** of the following:

a. Immunologist
b. Allergist
c. Rheumatologist

Authorization of therapy will be issued for 12 months.

[a] State mandates may apply. Any federal regulatory requirements and the member specific benefit plan coverage may also impact coverage criteria. Other policies and utilization management programs may apply.

3. Additional Clinical Programs:

- Supply limits may be in place.

4. References:

1. Cinryze [package insert]. Lexington, MA: ViroPharma Biologics, Inc.; December 2016.
2. Riedl MA, Hurewitz DS, Levy R, et al. Nanofiltered C1 esterase inhibitor (human) for the treatment of acute attacks of hereditary angioedema: an open-label trial. Ann Allergy Asthma Immunol. 2012 Jan;108(1):49-53.
3. Costantino G, Casazza G, Bossi I, et al. Long-term prophylaxis in hereditary angio-oedema: a systematic review. BMJ Open. 2012 Jul 11;2(4).
4. Tse K1, Zuraw BL. Recognizing and managing hereditary angioedema. Cleve Clin J Med. 2013 May;80(5):297-308.
5. Maurer M, Magerl M, Ansotegui I, et al. The international WAO/EAACI guideline for the management of hereditary angioedema-The 2017 revision and update. Allergy. 2018 Jan 10.

6. Farkas H, Martinez-Saquer I, Bork K, et al. International consensus on the diagnosis and management of pediatric patients with hereditary angioedema with C1 inhibitor deficiency. Allergy. 2017 Feb;72(2):300-313.

Program	Prior Authorization/Medical Necessity - Cinryze (C1 esterase inhibitor, human)
Change Control	
8/2014	New program.
9/2014	Administrative change - Tried/Failed exemption for State of New Jersey removed.
8/2015	Annual review. No change.
7/2016	Annual review with no changes to the coverage criteria. Updated background and references. Added Maryland, Indiana and West Virginia coverage information.
11/2016	Administrative change. Added California coverage information.
2/2017	Administrative change. Correct Oxford effective date.
7/2017	Annual review. No change to criteria. Updated reference.
7/2018	Annual review. Updated coverage criteria. Updated references.