Clinical Policy Title:	imiglucerase
Policy Number:	RxA.63
Drug(s) Applied:	Cerezyme®
Original Policy Date:	02/07/2020
Last Review Date:	03/09/2021
Line of Business Policy Applies to:	All lines of business

Background

Imiglucerase (Cerezyme®) is an analogue of the human enzyme ß-glucocerebrosidase. It is indicated for long-term enzyme replacement therapy for pediatric and adult patients with a confirmed diagnosis of type 1 Gaucher disease (GD1) that results in one or more of the following conditions: anemia, thrombocytopenia, bone disease, or hepatomegaly or splenomegaly.

Dosing Information

Drug Name	Indication	Dosing Regimen	Maximum Dose
imiglucerase (Cerezyme®)	Gaucher Disease	Individualize to each patient; initial dose ranges from 2.5 U/kg via IV infusion 3 times a week to 60 U/kg once every 2 weeks; disease severity may dictate treatment be initiated at relatively high dose or relatively frequent administration; Dosage adjustments should be made on an individual basis and may increase or decrease, based on achievement of therapeutic goals as assessed by routine comprehensive evaluations of the patient's clinical manifestations.	Individualized

Dosage Forms

- Vial: 200 units, 400 units

Clinical Policy

Provider must submit documentation (such as office chart notes, lab results or other clinical information) supporting that member has met all approval criteria.

I. Initial Approval Criteria

A. Gaucher Disease (must meet all):

1. Diagnosis of type 1 (GD1) or type 3 Gaucher disease (GD3) confirmed by one of the following (a or b):
   a. Enzyme assay demonstrating a deficiency of beta glucocerebrosidase (glucosidase) activity;
   b. DNA testing;

2. Age 2 years or older;
3. Member has one or more of the following conditions: anemia, thrombocytopenia, bone disease, hepatomegaly or splenomegaly;
4. Cerezyme® is not prescribed concurrently with Vpriv® (velaglucerase alfa) or Elelyso® (taliglucerase alfa).

Approval Duration
Commercial: 6 months
Medicaid: 6 months

II. Continued Therapy Approval

A. Gaucher Disease (must meet all):

1. Member is currently receiving medication that has been authorized by RxAdvance or the member has met initial approval criteria listed in this policy;
2. Member is responding positively to therapy as evidenced by increased or stabilized platelet count or hemoglobin, reduced or stabilized spleen or liver volume, decreased bone pain;
3. Cerezyme® is not prescribed concurrently with Vpriv® (velaglucerase alfa) or Elelyso® (taliglucerase alfa).

Approval Duration
Commercial: 12 months
Medicaid: 6 months

III. Appendices

APPENDIX A: Abbreviation/Acronym Key
FDA: Food and Drug Administration
GD1: Type 1 Gaucher disease
GD3: Type 3 Gaucher disease
DNA: Deoxyribonucleic acid
ERT: Enzyme replacement therapy

APPENDIX B: Therapeutic Alternatives
Not applicable

APPENDIX C: Contraindications/Boxed Warnings

- Contraindication(s):
  - None reported.

- Boxed Warning(s):
  - None reported.

APPENDIX D: General Information

- Measures of Therapeutic Response: GD1 is a heterogeneous disorder which involves the visceral organs, bone marrow, and bone in almost all affected patients. Common conditions resulting from GD1 include anemia, thrombocytopenia, hepatomegaly, splenomegaly, and bone disease. Therefore, hemoglobin level, platelet count, liver volume, spleen volume, and bone pain are clinical parameters that can indicate therapeutic response to GD1 therapies. In some clinical trials, stability has been defined as the following thresholds of change from baseline: hemoglobin level < 1.5 g/dL decrease, platelet count < 25% decrease, liver volume < 20% increase, and spleen volume < 25% increase.
- Enzyme replacement therapy such as Cerezyme® may have beneficial palliative effects in Type 2 disease but does not alter the outcome and is not generally used.
- According to the European consensus guidelines revised recommendations on the management of

neuronopathic Gaucher disease by Vellodi et al: (1) there is clear evidence in most patients that enzyme replacement therapy (ERT) ameliorates systemic involvement in non-neuronopathic (Type 1) as well as chronic neuronopathic Gaucher disease (Type 3), enhancing quality of life; (2) There is no evidence that ERT has reversed, stabilized or slowed the progression of neurological involvement; (3) In patients with established acute neuronopathic Gaucher disease (Type 2), enzyme replacement therapy has had little effect on the progressively downhill course. It has merely resulted in prolongation of pain and suffering.

- There is currently insufficient clinical evidence that supports the combination use of enzyme replacement therapy with Zavesca® (miglustat) or concurrent use of two or more enzyme replacement therapies at once.

References

1. Cerezyme® Prescribing Information. Cambridge, MA: Genzyme Corporation; December 2020. Available at https://www.Cerezyme®.com. Accessed February 5.2021.
2. Charrow J, Andersson HC, Kaplan P. Enzyme replacement therapy and monitoring for children with type 1 Gaucher disease: consensus recommendations. J Pediatr. 2004; 144: 112-20.
3. Hollak, CEM, Weinreb NJ. The attenuated/late onset lysosomal storage disorders: therapeutic goals and indications for enzyme replacement treatment in Gaucher and Fabry disease. Best Pract Res Clin Endocrinol Metab. 2015; 29: 205-218.
4. Pastores GM, Weinreb NJ, Aerts H, et al. Therapeutic goals in the treatment of Gaucher disease. Semin Hematol. 2004; 41(suppl 5): 4-14.
5. Andersson HC, Charrow J, Kaplan P, et al. Individualization of long-term enzyme replacement therapy for Gaucher disease. Genet Med. 2005; 7(2): 105-110.
6. Altarescu G, Hill S, Wiggs E, et al. The efficacy of enzyme replacement therapy in patients with chronic neuronopathic Gaucher`s disease. J Pediatr. 2001;138:539-547.
7. Vellodi A, Tylki-Szymanska A, Davies E, et al. Management of neuronopathic Gaucher disease: Revised recommendations. J Inherit Metab Dis. 2009;32:660-664.

Review/Revision History	Review/Revision Date	P&T Approval Date
Policy established.	01/2020	02/07/2020
Updated references	04/29/2020	05/20/2020
Updated Criteria II, A, i to: Currently receiving medication that has been authorized by Rxadvance, or documentation supports that member is currently receiving Cabometyx or Cometriq for a covered indication and has received this medication for at least 30 days;	05/08/2020	05/20/2020
Policy was reviewed: 1) Continuation therapy criteria II.A.1. rephrased to “Member is currently receiving medication that has been	02/05/2020	03/09/2021

authorized by RxAdvance or the member has met initial approval criteria listed in this policy 2) Appendix A Abbreviation/Acronym Key for DNA and ERT added References were updated. 3) Modified the criteria language of I.A.3 to “member has one or more of the following”		