 JOHNS HOPKINS HEALTH PLANS	Johns Hopkins Health Plans Pharmacy Public Medical Management Drug Policies	<i>Policy Number</i>	MMDP101
		<i>Effective Date</i>	01/15/2025
		<i>Approval Date</i>	07/17/2024
	<i>Subject</i> Zynteglo	<i>Supersedes Date</i>	N/A
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This document applies to the following Participating Organizations:

US Family Health Plan

Keywords: Zynteglo

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I. POLICY


- A. Zynteglo (betibeglogene autotemcel) will require prior authorization for medical benefit coverage to ensure appropriate use. The process for initiating a prior authorization request can be found in policy PHARM 20.

II. POLICY CRITERIA

- A. Zynteglo may be approved for patients who meet the following:
1. Patient is 4 years of age or older and weighs at least 6 kg
 2. Patient is reasonably anticipated to provide at least the minimum number of cells required to initiate the manufacturing process
 3. Documentation has been submitted showing all the following:
 - a. Diagnosis of transfusion-dependent beta-thalassemia with a non-#0/#0 OR #0/#0 genotype confirmed via genetic testing, such one of the following:
 - I. beta0/beta0
 - II. beta0/beta+
 - III. betaE/beta0
 - IV. beta0/IVS-I-110
 - V. IVS-I-110/IVS-I-110
 - b. Patient requires regular blood cell transfusions, and also has received one of the following with the previous two years:
 - I. At least 100 milliliter per kilogram of packed red blood cells (pRBCs) per year
 - II. At least 8 transfusions events of pRBCs per year
 - c. Patient is eligible for a hematopoietic stem cell transplant (HSCT) but is unable to find a human leukocyte antigen (HLA)-matched related donor
 - d. Patient has not received a prior HSCT
 - e. Patient has not previously received Lyfgenia or any other gene therapy

III. AUTHORIZATION PERIOD/LIMITATIONS

- A. Approval will be limited to 3 months for a one-time administration.

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IV. EXCLUSIONS

- A. Zynteglo will not be covered for the following:
1. Patients with any of the following:
 - a. Positive test for human immunodeficiency virus type 1 or 2 (HIV-1 and HIV-2)
 - b. Positive test for hepatitis B virus (HBV) or hepatitis C (HCV)
 - c. Any prior or current malignancy
 - d. Advanced liver disease (e.g., bridging fibrosis, cirrhosis, active hepatitis)
 - e. Severely elevated iron in the heart (i.e., patients with cardiac T2* less than 10 msec by MRI)
 2. Any indications or uses that are not FDA-approved, or guideline-supported

V. RECOMMENDED DOSE

Please refer to the FDA-approved prescribing information, or clinical guidelines, for indication-specific dosing details.

VI. CODES

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Note: The following CPT/HCPCS codes are included below for informational purposes. Inclusion or exclusion of a CPT/HCPCS code(s) below does not signify or imply member coverage or provider reimbursement. The member's specific benefit plan determines coverage.

Medication	HCPCS/CPT Code
Injection, betibeglogene autotemcel, per treatment	J3393


VII. REFERENCES

1. Zynteglo [prescribing information]. Somerville, MA: Bluebird Bio; August 2022.
2. Locatelli F, Thompson AA, Kwiatkowski JL, et al. Betibeglogene Autotemcel Gene Therapy for Non-beta0/beta0 Genotype beta-Thalassemia. *N Engl J Med.* 2022;386(5):415-427.
3. Ashutosh Lal, Franco Locatelli, Janet L. Kwiatkowski, Andreas E. Kulozik, Evangelia Yannaki, John B. Porter, Isabelle Thuret, Martin G. Sauer, Heidi Elliot, Ying Chen, Richard A. Colvin, Alexis A. Thompson; Northstar-3: Interim Results from a Phase 3 Study Evaluating Lentiglobin Gene Therapy in Patients with Transfusion-Dependent #-Thalassemia and Either a beta0 or IVS-I-110 Mutation at Both Alleles of the HBB Gene. *Blood* 2019; 134 (Supplement_1): 815.
4. Cappellini MD, Farmakis D, Porter J, Taher A. 2021 Guidelines for the management of transfusion dependent thalassaemia (TDT). Nicosia, Cyprus: Thalassaemia International Federation, 2021.

VIII. APPROVALS

Signature on file at JHHP

DATE OF REVISION	SUMMARY OF CHANGE
07/17/2024	Policy creation

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01/15/2025

Removed prescriber specialty requirement

Review Date: 07/17/2024

Revision Date: 01/15/2025