Medical Policy

Zynteglo® (betibeglogene autotemcel)	
MEDICAL POLICY NUMBER	Med_Clin_Ops-127
CURRENT VERSION EFFECTIVE DATE	January 1, 2024
APPLICABLE PRODUCT AND MARKET	*Individual Family Plan:* All Plans *Small Group*: All Plans *Medicare Advantage:* All Plans

Brand New Day/Central Health Medicare Plan develops policies and makes coverage determinations using credible scientific evidence including but not limited to MCG™ Health Guidelines, the ASAM Criteria™, and other third party sources, such as peer-reviewed medical literature generally recognized by the relevant medical community, physician specialty society recommendations, and expert opinion as relevant to supplement those sources. Brand New Day/Central Health Medicare Plan Medical Policies, MCG™ Guidelines, and the ASAM Criteria™ are not intended to be used without the independent clinical judgment of a qualified health care provider considering the individual circumstances of each member's case. The treating health care providers are solely responsible for diagnosis, treatment, and medical advice. Members may contact Brand New Day/Central Health Medicare Plan Customer Service at the phone number listed on their member identification card to discuss their benefits more specifically. Providers with questions about this Brand New Day/ Central Health Medicare Plan policy may contact the Health Plan. Brand New Day/Central Health Medicare Plan policies and practices are compliant with federal and state requirements, including mental health parity laws.

If there is a difference between this policy and the member specific plan document, the member benefit plan document will govern. For Medicare Advantage members, Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), govern. Refer to the CMS website at http://www.cms.gov for additional information.

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PURPOSE

To promote consistency between reviewers in clinical coverage decision-making by providing the criteria that generally determine the medical necessity of Zynteglo® (betibeglogene autotemcel) therapy.

POLICY/CRITERIA

Prior Authorization and Medical Review is required.

Coverage will be provided for one treatment course (1 dose of Zynteglo) and may **NOT** be renewed.

Max Units (per dose and over time) [HCPCS Unit]:

- A single dose of Zynteglo containing a minimum of 5.0 × 106 CD34+ cells/kg of body weight, in one or more infusion bags

1. Patient is at least 4 years of age; **AND**
2. Patient has been screened for hepatitis B virus (HBV), hepatitis C virus (HCV), human T-lymphotrophic virus 1 & 2 (HTLV-1/HTLV-2), and human immunodeficiency virus (HIV) in accordance with clinical guidelines prior to collection of cells (leukapheresis); **AND**
3. Patient has not used prophylactic HIV anti-retroviral medication or hydroxyurea within 30

days prior to mobilization (or for the expected duration for elimination of those medications) and until all cycles of apheresis are completed (Note: if a patient requires anti-retrovirals for HIV prophylaxis, confirm a negative test for HIV before beginning mobilization); **AND**

4. Iron chelation therapy has been discontinued for at least 7 days prior to initiating myeloablative conditioning therapy; **AND**
5. Females of reproductive potential have a negative pregnancy test prior to start of mobilization and re-confirmed prior to conditioning procedures and again before administration of Zynteglo (betibeglogene autotemcel); **AND**
6. Zynteglo will be used as single agent therapy (not applicable to lymphodepleting or bridging therapy while awaiting manufacture); **AND**
7. Patient will receive periodic life-long monitoring for hematological malignancies; **AND**
8. Patient is eligible to undergo hematopoietic stem cell transplant (HSCT) and has not had prior HSCT or other gene-therapy; **AND**
9. Patient has a documented diagnosis of beta thalassemia (excludes alpha-thalassemia and hemoglobin S/ß-thalassemia variants) as outlined by the following (documentation required):
    a. Diagnosis is confirmed by HBB sequence gene analysis showing biallelic pathogenic variants; **OR**
    b. Patient has severe microcytic hypochromic anemia, anisopoikilocytosis with nucleated red blood cells on peripheral blood smear, and hemoglobin analysis that reveals decreased amounts or complete absence of hemoglobin A and increased amounts of hemoglobin F; **AND**
10. Patient has transfusion-dependent disease defined as a history of transfusions of at least 100 mL/kg/year of packed red blood cells (pRBCs) or with 8 or more transfusions of pRBCs per year in the 2 years preceding therapy; **AND**
11. Patient does not have any of the following:
    a. Severely elevated iron in the heart (i.e., patients with cardiac T2* less than 10 msec by magnetic resonance imaging [MRI]); OR
    b. Advanced liver disease; OR
    c. Patients with an MRI of the liver with results demonstrating liver iron content ≥ 15 mg/g (unless biopsy confirms absence of advanced disease).

LIMITATIONS/EXCLUSIONS

Any indication other than those listed above due to insufficient evidence of therapeutic value

CODING

The codes listed below are for reference purposes. This list does not imply whether the code is covered or not covered. The benefit document should be referenced for coverage determination. This list of applicable codes may not be all-inclusive.

NDC CODE	DESCRIPTION
73554-3111 -01	Zynteglo up to 4 infusion bags, 20 mL/infusion bag, overwrap, and metal cassette

CPT CODE	DESCRIPTION
J3590	Unclassified biologics

ICD-10 CODE	DESCRIPTION
D56.1	Beta thalassemia

EVIDENCE BASED REFERENCES

1. Zynteglo [package insert]. Somerville, MA; Bluebird bio, Inc: August 2022. Accessed September 2022.

POLICY HISTORY

This policy has been approved by the approval body listed below or has received other necessary approval pursuant to Brand New Day/Central Health Medicare Plan Care's policies on clinical criteria and policy development.

Approval Body	Pharmacy and Therapeutics Committee		
Version History	**Approval Date**	**Effective Date**	**Action**
V1	10-10-2022	10-10-2022	New Policy
V2	10-10-2022	03-01-2023	Adopted by MA UMC
V3	10-10-2022	01-01-2024	Updated to Brand New Day/Central Health Medicare Plan/Central Health Medicare Plan