POLICY NUMBER UM ONC_1373	SUBJECT Endari™ (l-glutamine)		DEPT/PROGRAM UM Department	PAGE 1 OF 2
DATES COMMITTEE REVIEWED 11/13/19, 12/11/19	APPROVAL DATE December 11, 2019	EFFECTIVE DATE December 11, 2019	COMMITTEE APPROVAL DATES (latest version listed last) 11/13/19, 12/11/19	
PRIMARY BUSINESS OWNER: UM APPROVED BY: Dr. Andrew Hertler		COMMITTEE/BOARD APPROVAL Utilization Management Committee		
URAC STANDARDS HUM 1		NCQA STANDARDS UM 2	ADDITIONAL AREAS OF IMPACT	
CMS REQUIREMENTS	STATE/FEDERAL REQUIREMENTS		APPLICABLE LINES OF BUSINESS All	

I. PURPOSE

To define and describe the accepted indications for Endari (l-glutamine) usage in the treatment of cancer.

II. DEFINITIONS

Endari (l-glutamine): The mechanism of L-glutamine in treating sickle cell disease is not fully understood. Sickle red blood cells (RBC) are more vulnerable to oxidative damage compared to normal RBC, which may contribute to the chronic hemolysis and vaso-occlusive events associated with sickle cell disease. The pyridine nucleotides, NAD+ and its reduced form NADH, partially regulate and prevent oxidative damage in RBC. L-glutamine may improve the NAD redox potential in sickle RBC by increasing the availability of reduced glutathione.

Endari (l-glutamine) is FDA approved to reduce the acute complications of sickle cell disease in adult and pediatric patients 5 years of age and older

Endari (l-glutamine) is available in an oral powder: 5 grams of L-glutamine powder per paper-foil-plastic laminate packet.

III. POLICY

New Century Health is responsible for processing all medication requests from network ordering providers. Medications not authorized by New Century Health may be deemed as not approvable and therefore not reimbursable. Treatment request outside the approved FDA manufacturer labeling or CMS approved compendia must follow CMS Medicare Benefit Policy Manual Chapter 15. If references are not produced, delays may occur to the processing of such request.

Inclusion Criteria: Endari (l-glutamine) may be considered medically necessary when any of the following selection criteria are met:

1. **Sickle Cell Disease**
    a. Endari (l-glutamine) is being used in members with sickle cell anemia and **ALL** of the following:
        i. Two documented episodes of sickle cell crises within 12 months. Sickle cell crisis is defined as a visit to an emergency room/medical facility for sickle cell disease-related pain and the occurrence of chest syndrome, priapism, and splenic sequestration.
        ii. INR is ≤ 2.0
        iii. Serum Albumin ≥ 3.0.

Exclusion Criteria: Endari (l-glutamine) is not considered medically necessary when any of the following selection criteria are met:

1. Endari (l-glutamine) is being used after disease progression with the same regimen.
2. Concurrent use with other anti-sickling medication within 3 months of diagnosis (e.g. hydroxyurea).
3. Member has uncontrolled liver disease or renal insufficiency.
4. Dosing exceeds single dose limit of Endari (l-glutamine) 15 gm.
5. Treatment exceeds the maximum limit of 180 (900 gm) packets/month.
6. Indications not supported by CMS recognized compendia or acceptable peer reviewed literature may be deemed as not approvable and therefore not reimbursable.

IV. PROCEDURE

Requests for Endari (l-glutamine) shall be reviewed for appropriateness per FDA approved product labeling, the National Comprehensive Cancer Network (NCCN) and American Society of Clinical Oncology (ASCO) clinical guidelines, or CMS approved compendia.

1. **Dosage and Administration:**
    a. Adults weighing more than 65 kg: 15 g (3 packets) PO twice daily.
    b. Adults weighing 30 to 65 kg: 10 g (2 packets) PO twice daily
2. **Dosage Adjustments:** Dosage adjustments are not required for renal or hepatic impairment.
3. **Monitoring:** Reduction in acute complications of sickle cell disease may be indicative of efficacy.

V. APPROVAL AUTHORITY

1. Review – Utilization Management Department
2. Final Approval – Utilization Management Committee

VI. ATTACHMENTS

None

VII. REFERENCES

1. Endari PI prescribing information. Emmaus Medical, Inc. Torrance, CA 2019.
2. Clinical Pharmacology Elsevier Gold Standard. 2019.
3. Micromedex® Healthcare Series: Thomson Micromedex, Greenwood Village, Co. 2019.
4. National Comprehensive Cancer Network. Cancer Guidelines and Drugs and Biologics Compendium. 2019.
5. AHFS Drug Information. American Society of Health-Systems Pharmacists or Wolters Kluwer Lexi-Drugs. Bethesda, MD. 2019.