Harvard Pilgrim Health Care | TUFTS Health Plan

Medical Necessity Guidelines

Medical Benefit Drugs

Nulibry® (fosdenopterin)

Effective: January 1, 2026

Guideline Type	☒ Prior Authorization ☐ Non-Formulary ☐ Step-Therapy ☐ Administrative

Public Plans Products

☒ Tufts Health One Care* – A Medicare-Medicaid Plan (a dual eligible product); Fax 617-673-0956

*The MNG applies to Tufts Health One Care members unless a less restrictive LCD or NCD exists.

Senior Products

☒ Tufts Health Plan Senior Care Options (SCO), (a dual-eligible product); Fax 617-673-0956

☒ Tufts Medicare Preferred HMO, (a Medicare Advantage product); Fax 617-673-0956

☒ Tufts Medicare Preferred PPO, (a Medicare Advantage product); Fax 617-673-0956

Note: While you may not be the provider responsible for obtaining prior authorization, as a condition of payment you will need to ensure that prior authorization has been obtained.

Overview

Molybdenum cofactor deficiency (MoCD) is a severe autosomal recessive inborn error of metabolism that is characterized by a neonatal presentation of intractable seizures, feeding difficulties, developmental delays, microcephaly with brain atrophy and coarse facial features.

There are three forms of the disorder, named types A, B, and C (or complementation groups A, B, and C). The forms have the same signs and symptoms but are distinguished by their genetic cause: MOCS1 gene mutations cause type A, MOCS2 gene mutations cause type B, and GPHN gene mutations cause type C.

Approximately two-thirds of patients have MoCD type A, in which mutations in MOSC1 result in the inability to synthesize the first intermediate in the pathway, cyclic pyranopterin monophosphate (c-PMP), and the toxic accumulation of sulfites in blood and urine. Patients with MoCD Type A do not have symptoms at birth, but within a few hours or few days (sometimes longer), patients often have trouble feeding and intractable seizures. Early diagnosis of MoCD Type A is critical as it is devastating and progresses rapidly.

Approval of Nulibry was based on data from three trials compared to data from a genotype-matched historical control. In a combined analysis, Nulibry-treated patients had a survival rate of 84% at three years compared to 55% for the untreated matched control patients. Treatment with Nulibry also resulted in a reduction of urine concentrations of s-sulfocysteine, which was sustained over 48 months of treatment.

Food and Drug Administration - Approved Indications

Nulibry (fosdenopterin) is cyclic pyranopterin monophosphate (c-PMP) indicated to reduce the risk of mortality in patients with molybdenum cofactor deficiency (MoCD) Type A.

Clinical Guideline Coverage Criteria

The plan may authorize coverage for Nulibry when any of the following clinical criteria are met:

1. Documentation of **one (1)** of the following:
    a. Diagnosis of molybdenum cofactor deficiency Type A confirmed by genetic testing, including prenatal genetic testing
    b. A presumptive diagnosis of molybdenum cofactor deficiency Type A based on one of the following:
        i. Onset of clinical signs and symptoms consistent with molybdenum cofactor deficiency Type A (e.g., seizures, feeding difficulties, high-pitched cries, exaggerated startle reactions, increased/decreased muscle tone) within the first 28 days after birth
        ii. Onset of laboratory signs and symptoms consistent with molybdenum cofactor deficiency Type A (e.g., elevated urinary sulfite and/or S-sulphocysteine, elevated xanthine in urine or blood, or low or absent uric acid in the urine or blood) within the first 28 days after birth

Limitations

- For members with a presumptive diagnosis of MoCD Type A, one 4 months authorization will be given only to give time for documentation of the genetic testing.

Codes

The following code(s) require prior authorization:

Table 1: HCPCS Codes

HCPCS Codes	Description
J1809	INJECTION, FOSDENOPTERIN, 0.1 MG

References

1. Atwal P, et al. Molybdenum cofactor deficiency. Mol Genet Metab. 2016;117:1-4.
2. Mechler K, et al. Ultra-orphan diseases: a quantitative analysis of the natural history of molybdenum cofactor deficiency. Genet Med. 2015;17(12):965-970.
3. Nulibry [package insert]. Boston, MA: Origin Biosciences, Inc.; October 2022.
4. Veldman A, et al. Successful treatment of molybdenum cofactor deficiency type A with cPMP. Pediatrics. 2010;125(5):e1249-e1254.
5. Wilcken B. Treatments for rare diseases: molybdenum cofactor deficiency. Lancet. 2015;386(10007):1924.

Approval And Revision History

September 13, 2022: Reviewed by Pharmacy and Therapeutics Committee (P&T).

September 21, 2022: Reviewed by the Medical Policy Approval Committee (MPAC).

Subsequent endorsement date(s) and changes made:

- December 12, 2023: Minor wording updates. Added requirements for presumptive diagnosis of MoCD Type A. Removed Limitation Any indications other than FDA-approved indications are considered experimental or investigational and will not be approved by the health plan. Updated duration of approval limits for a presumptive diagnosis. Administrative Update in support of calendar year 2024 Medicare Advantage and PDP Final Rule (eff 3/1/2024).
- December 2023: Administrative update to rebrand Tufts Health Unify to Tufts Health One Care for 2024.
- November 12, 2024: No change (eff 1/1/25)
- December 2024: Joint Medical Policy and Health Care Services UM Committee review (eff 1/1/25).
- September 2025: Administrative update to remove Harvard Pilgrim Health Care Stride Medicare Advantage from the Medical Necessity Guideline template. Added HCPCs code (J1809) effective 10/1/25.
- December 9, 2025: No changes (eff 1/1/26)
- December 2025: Joint Medical Policy and Health Care Services UM Committee review (effective 1/1/26)

Background, Product and Disclaimer Information

Point32Health prior authorization criteria to be applied to Medicare Advantage plan members is based on guidance from Medicare laws, National Coverage Determinations (NCDs) or Local Coverage Determinations (LCDs). When no guidance is provided, Point32Health uses clinical practice guidance published by relevant medical societies, relevant medical literature, Food and Drug Administration (FDA)-approved package labeling, and drug compendia to develop prior authorization criteria to apply to Medicare Advantage plan members. Medications that require prior authorization generally meet one or more of the following criteria: Drug product has the potential to be used for cosmetic purposes; drug product is not considered as first-line treatment by medically accepted practice guidelines, evidence to support the safety and efficacy of a drug product is poor, or drug product has the potential to be used for indications outside of the indications approved by the FDA. Prior authorization and use of the coverage criteria within this Medical Necessity Guideline will ensure drug therapy is medically necessary, clinically appropriate, and aligns with evidence-based guidelines. We revise and update Medical Necessity Guidelines annually, or more frequently if new evidence becomes available that suggests revisions.

Treating providers are solely responsible for the medical advice and treatment of Members. The use of this guideline is not a guarantee of payment or a final prediction of how specific claim(s) will be adjudicated. Claims payment is subject to eligibility and benefits on the date of service, coordination of benefits, referral/authorization, utilization management guidelines when applicable, and adherence to plan policies, plan procedures, and claims editing logic.