Policy: Coenzyme Q-10 (Ubiquinone, Ubiquinol)

Reference Number: OR.CP.PMN.1010
Effective Date: 01.01.22
Last Review Date: 11.24
Line of Business: Medicaid – Trillium Oregon Health Plan

Revision Log

See Important Reminder at the end of this policy for important regulatory and legal information.

Description
This policy applies to requests for coenzyme Q-10 products.

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

It is the policy of Trillium Community Health Plan that Coenzyme Q-10 is **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

A. Congestive Heart Failure (must meet all)**:**

1. Member has a diagnosis of CHF;
2. Dose does not exceed the maximum recommended dose;

Approval duration: up to 12 months; not to exceed 3 per day

B. Migraine (must meet all):

1. To be used for migraine prophylaxis;
2. Dose does not exceed the maximum recommended dose;

Approval duration: up to 12 months; not to exceed 3 per day

C. Other diagnoses/indications

1. Must meet the supplement, herbal and vitamin coverage guidelines in OR.CP.PMN.1007 for coverage.

II. Continued Therapy

A. All Indications (must meet all)**:**

1. Member meets one of the following (a or b):
   a. Currently receiving medication via Centene benefit or member has previously met initial approval criteria;
   b. Member is currently receiving medication and is enrolled in a state and product with continuity of care regulations (*refer to state specific addendums for CC.PHARM.03A and CC.PHARM.03B*);
2. Member is responding positively to therapy;
3. If request is for a dose increase, new dose does not exceed the maximum recommended dose for the relevant indication.

Approval duration: up to 12 months; not to exceed 3 per day

III. Appendices/General Information

Appendix A: Abbreviation/Acronym Key
CHF: Congestive Heart Failure
OHP: Oregon Health Plan
PDL: Preferred Drug List

Appendix B: Definitions
Possibly Effective: This product has some clinical evidence supporting its use for a specific indication; however, the evidence is limited by quantity, quality, or contradictory findings. Products rated "Possibly Effective" might be beneficial, but do not have enough high-quality evidence to recommend for most people.
To achieve this effectiveness rating a product is supported by all of the following:

1. Evidence from one or more randomized clinical trials or meta-analysis (level of evidence A or B) or two or more population based or epidemiological studies (level of evidence = B).
2. Studies have a low to moderate risk of bias and moderate to high level of validity by meeting or partially meeting assessment criteria (quality rating A or B).
3. Evidence show POSITIVE outcomes for a given indication without substantial valid evidence to the contrary. Some contrary evidence may exist; however, valid positive evidence outweighs contrary evidence.

Appendix C: Safety
Adults: Likely safe when used orally and appropriately; has been used in studies lasting up to 5 years
Children: Possibly safe when used orally and appropriately; has been used in doses of 1-3 mg/kg/day or 10 mg/kg/day for up to 9 months under medical supervision.
Pregnancy: Possibly safe when used orally and appropriately; 100mg twice daily has been used with apparent safety during pregnancy starting at 20 weeks gestation until term.
Lactation: Insufficient reliable information; avoid using.

Appendix D: General Information
Rated "Possible Effective" in the treatment of cardiovascular mortality, congestive heart failure and migraine headaches.[1]

- **Cardiovascular mortality.** Clinical evidence shows that taking a combination of coenzyme Q10 100 mg twice daily plus organic selenium yeast tablets 200 mcg daily for 4 years reduces the risk of cardiovascular mortality by about 55% compared to placebo in elderly people living in Sweden. This benefit appears to persist for up to 10 years after supplementation is discontinued. The results of this study might not be generalizable to other populations. The effect of coenzyme Q10 alone requires additional research.
- **Congestive heart failure (CHF).** Population research has found that heart failure is associated with low coenzyme Q10 levels. Additionally, coenzyme Q10 levels may be a predictor of mortality in patients with heart failure. Adding oral coenzyme Q10

to conventional treatments seems to improve quality of life, improve New York Heart Association (NYHA) classification, decrease hospitalization rates, and decrease symptoms of heart failure such as dyspnea, peripheral edema, enlarged liver, and insomnia in patients with mild to severe (New York Heart Association Class II-IV) CHF. Other clinical research of low methodological quality also shows that taking coenzyme Q10 100-300 mg daily for up to 7 months might improve objective measures of CHF, including systolic wall thickening, cardiac output, and left ventricular ejection fraction compared to baseline or placebo. Additional clinical research shows that taking coenzyme Q10 30 mg daily for 1 year as an adjuvant to standard care reduces the incidence of atrial fibrillation by about 73% compared to standard care alone in patients with NYHA class II-IV CHF. The largest study to date also shows that taking coenzyme Q10 100 mg three times daily for up to 2 years reduces major adverse cardiovascular events (death or hospitalization related to cardiovascular disease) compared to placebo in patients with NYHA class III-IV heart failure receiving conventional therapy. Based on these results, the number of patients needed to be treated to prevent one major adverse cardiovascular event is 9.

  - However, not all evidence is positive. Some research suggests that coenzyme Q10 does not improve objective measures of CHF, including ejection fraction, cardiac output, NT-proBNP levels or exercise tolerance. Additionally, an analysis of multiple clinical trials suggests that coenzyme Q10 does not reduce the risk of mortality associated with heart failure compared to controls, although the validity of these results is limited due to the small sample sizes of included studies.
  - One factor that might influence the benefit of coenzyme Q10 is treatment with conventional drug therapy. An analysis of clinical research shows that coenzyme Q10 60-200 mg daily for up to 6 months increases the amount of blood the left ventricle pumps out with each contraction by 3.7% overall; however, this effect increased to 6.7% in patients not taking an angiotensin-converting enzyme (ACE) inhibitor. These results suggest that coenzyme Q10 might improve systolic function in patients with CHF, but use of concomitant drug therapies might reduce its apparent effectiveness.
  - The duration of treatment, the severity of CHF, and the dose of coenzyme Q10 used might also impact the effectiveness of coenzyme Q10. Studies suggest that, although taking coenzyme Q10 for at least 6 months might not improve objective measures of heart failure, heart failure related symptoms and mortality might be reduced. Additional studies that are adequately powered to investigate mortality and morbidity are needed.

- **Migraine headache**. Some clinical research shows that taking coenzyme Q10 orally decreases the frequency of headaches by about 30% and the number of days with headache-related nausea by about 45% in adults. Another study shows that taking coenzyme Q10 100 mg daily for 3 months reduces migraine severity, the number of missed work days due to migraines, and the frequency by half in 60% of patients. For reducing migraine frequency by 50% in adults, the number needed to treat (NNT) using coenzyme Q10 100 mg TID for 3 months is three. It can take up to 3 months for a significant benefit. In one observational study, taking a specific combination

product containing coenzyme Q10 100 mg, feverfew 100 mg, magnesium 112.5 mg and vitamin B6 1.4 mg daily for 12 weeks has been shown to reduce the number of headache days per month by 3.5 days while improving the quality of life compared to baseline.

IV. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
Congestive Heart Failure	• 100 mg daily divided into two or three doses; or • lower doses of 30 mg daily; or • higher doses of 50-100 mg three times daily	100 mg three times daily
Migraine Prophylaxis	• 100 mg one or three times daily; or • 150 mg once daily	100 mg three times daily

V. Product Availability – Recommended USP Certified Products

Strength	Product Name	Manufacture
15 mg	Q-Gel Capsules	Q-Gel
30 mg	CoQ10	Nature Made
	Q-Gel Forte	Q-Gel
50 mg	Coenzyme Q10	Equaline
	Coenzyme Q10	TruNature
60 mg	Q-Gel Ultra	Q-Gel
100 mg	CoQ10	Nature Made
	CoQ10	Berkley & Jensen
	Q-Gel Mega	Q-Gel
	CoQ10	TruNature
150 mg	Coenzyme Q10	TruNature
	Co Q10	Safeway, Inc.

VI. References

1. Natural Medicines [Internet database]. Stockton, CA. Therapeutic Research Center (TRC). Updated periodically. Accessed October 2, 2024.

Reviews, Revisions, and Approvals	Date	Plan Approval Date
Policy created: adapted from previously approved policy TCHP.PHAR.18006 Coenzyme Q-10 (Ubiquinone, Ubiquinol). No clinically significant changes.	09.21.21	10.21.21
4Q 2022 annual review: no significant changes; updated policy ID of the vitamin/supplement coverage criteria; references reviewed and updated	09.16.22	10.06.22

4Q 2023 annual review: no significant changes; template changes applied to continued therapy section; references reviewed and updated.	09.21.23	11.21.23
4Q 2024 annual review: no significant changes; references reviewed and updated.	10.02.24	11.19.24

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. "Health Plan" means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan's affiliates, as applicable.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable Health Plan-level administrative policies and procedures.

This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. The Health Plan retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members. This clinical policy is not intended to recommend treatment for members. Members should consult with their treating physician in connection with diagnosis and treatment decisions.

Providers referred to in this clinical policy are independent contractors who exercise independent judgment and over whom the Health Plan has no control or right of control. Providers are not agents or employees of the Health Plan.

Note:
For Medicaid members, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.