## PRESCRIPTION MONOGRAPH

**Compounded Active Ingredients:** Ascorbic Acid/Zinc Acetate **Form:** Oral Capsule

# **Drug Class:**

- Ascorbic Acid: Water-soluble vitamin / antioxidant.
- Zinc acetate: trace element, immunomodulator.

#### Mechanism of Action<sup>1,2</sup>:

Ascorbic Acid is intended to

- Scavenge reactive oxygen species and regenerates vitamin E.
- Enhance leukocyte function and promote epithelial barrier integrity to support immune defense.

#### Zinc Acetate is intended to

- Deliver zinc ions efficiently.
- Reduce inflammatory mediators.

# **Indications Commonly Prescribed for:**

- Shortening and/or lessening severity of common cold symptoms when started early (best within 24 hours of onset).
- Nutritional supplementation in patients at risk of vitamin C or zinc insufficiency.
- Wound healing support or postsurgical recovery as adjunct.

**Before Use:** Let your health care provider know if you have any medication allergies before you take this compounded preparation. Let your health care provider know if you have any liver or kidney problems. Let your healthcare provider know of all supplements you are currently taking.

#### **Contraindications:**

• Known hypersensitivity to vitamin C or zinc.

Cautions: Let your Healthcare provider know if you experience any adverse side effects.

**How to Use**: This compounded preparation is in the form of an oral capsule. Swallow the capsule whole with a glass of water. Do not chew or crush the capsule. If you miss a dose, take as soon as you remember, but not at the time for the next dose. Desired results may take up to several weeks.

## **Warnings and Precautions:**

- High-dose vitamin C can cause GI upset and, rarely, promote oxalate kidney stones; use caution in recurrent nephrolithiasis or significant renal impairment.
- Prolonged high-dose zinc can cause copper deficiency, anemia, and neurologic effects; limit high-dose courses to short durations for colds.

## PRESCRIPTION MONOGRAPH

### **Adverse Reactions:**

- Common:
  - Nausea
  - Metallic taste
  - Abdominal cramps, Diarrhea

- Serious, but Rare:
  - Hemolysis
  - Oxalate nephropathy
  - Copper deficiency and dyslipidemia

### Interactions:

- Ascorbic acid increases iron absorption; use caution in hemochromatosis or transfusional iron overload.
- Ascorbic acid can increase aluminum absorption from aluminum-containing antacids, especially in renal impairment.
- Quinolone and tetracycline antibiotics form complexes with zinc; separate zinc by at least 2–6 hours around these doses.
- Penicillamine efficacy is reduced by zinc; separate dosing.
- Chronic high-dose zinc can lower copper status; consider copper if repeated courses or long-term use.

# **Use in Specific Populations:**

- Pregnancy/lactation: typical supplemental doses are generally considered safe; avoid large doses unless clinically justified.
- Pediatrics: commonly used for colds at age-appropriate doses; avoid prolonged high-dose zinc.
- Renal impairment: avoid high-dose vitamin C.

## Storage:

- Store in original container at room temperature (up to 30°C or 86°F)
- Store in a cool dry place away from heat, sunlight, and moisture

#### **Monitoring Parameters:**

- If repeated or prolonged high-dose zinc: consider serum copper and CBC.
- In renal stone formers or renal impairment: monitor for symptoms and consider limiting high vitamin C doses.

### **Citations:**

- 1. Yin Y, Wu S. Ascorbic acid alleviates rheumatoid arthritis by inhibiting the production of autoantibodies. *Cell Commun Signal*. 2024;22(1):373. Published 2024 Jul 24. doi:10.1186/s12964-024-01756-x
- 2. Wang MX, Win SS, Pang J. Zinc Supplementation Reduces Common Cold Duration among Healthy Adults: A Systematic Review of Randomized Controlled Trials with Micronutrients Supplementation. *Am J Trop Med Hyg.* 2020;103(1):86-99. doi:10.4269/ajtmh.19-0718