PRESCRIPTION MONOGRAPH

Compounded Active Ingredients: Ivermectin
Form: Oral Capsule

Drug Class:

- Macrocyclic lactone antiparasitic agent
- Broad-spectrum antiviral

Mechanism of Action[1,2]**:** Ivermectin is a broad spectrum anti-parasitic agent that has shown to have anti-viral activity for a broad range of viruses. It is intended to:

- Inhibit importin α/β1–mediated nuclear transport, disrupting viral protein entry into the host nucleus—effective against DNA and RNA viruses, including HIV-1 and dengue.
- Demonstrate in vitro inhibition of SARS-CoV-2, reducing viral RNA levels >5,000-fold in cell culture
- Act on multiple RNA viruses (e.g., Dengue, Zika, West Nile, Chikungunya) and DNA viruses (e.g., herpesviruses)
- Offer immunomodulatory effects and interference with viral life cycles

Indications Commonly Prescribed for:

- Parasitic infections
- Antiviral use

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:

- Hypersensitivity to ivermectin
- Patients taking medications or herbs affecting CYP3A4 or P-glycoprotein (risk of toxicity at high doses)

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. The desired results may take up to several weeks.

Warnings and Precautions:

- Neurotoxicity risk at high doses or in sensitive individuals (e.g., encephalopathy)
- Not effective at standard antiparasitic dosing for viral infections—effective concentrations are far higher
- Monitor for hypotension, tachycardia, seizures

Adverse Reactions:

- Common: Itching, skin rash, GI Upset
- High-Dose: hypotension, tachycardia, seizures, encephalopathy

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Interactions:

- Potential interactions with CYP3A4 modulators and P-glycoprotein substrates, particularly relevant at higher doses
- No major interactions at standard doses for parasitic infections

Use in Specific Populations:

- Pregnancy: Use only if benefits outweigh the risks; use with caution
- Pediatrics: Approved for children 5 years and older at parasitic doses
- Geriatrics: Use standard dosing; monitor renal/hepatic function
- Hepatic/Renal Impairment: Standard dosing is OK; high-dose antiviral use should be monitored

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:

- Signs of neurotoxicity (e.g., CNS changes, seizures)
- Blood pressure and heart rate
- Liver and renal function with prolonged or high-dose use

Citations:

1. Gotz, V., et al. Influenza A viruses escape from MxA restriction at the expense of efficient nuclear vRNP import. Sci Rep. 2016; 6: 23138.
2. The FDA-approved drug ivermectin inhibits the replication of SARS-CoV-2 in vitro Antiviral Research Volume 178