

# I-CARE<sup>SM</sup>

## EARLY COVID TREATMENT

### A Guide to Early Treatment of COVID-19

Infection with SARS-CoV-2, the virus that causes COVID-19, progresses through a number of stages and phases. Treatment is therefore highly stage-specific and should be initiated immediately after the onset of flu-like symptoms. A confirmed antigen or PCR test is not required. The multiple therapies and drugs in this protocol have different mechanisms of action and work synergistically during various phases of the disease.

#### FIRST LINE THERAPIES

In order of priority; not all required

- **Ivermectin:** 0.4 to 0.6 mg/kg – one dose daily for at least 5 days or until symptoms resolve. If symptoms persist longer than 7 days, consult a healthcare provider. See **Table 1** for help with calculating correct dose. Due to a possible interaction between quercetin and ivermectin, these drugs should be staggered throughout the day (see **Table 2**). For COVID treatment, ivermectin is best taken with a meal or just following a meal, for greater absorption.
- **Hydroxychloroquine (HCQ):** 200 mg twice a day for 5 to 10 days. Best taken with zinc. HCQ may be taken in place of, or together with, ivermectin. While ivermectin should be avoided in pregnancy, the FDA considers HCQ safe in pregnancy. Given the pathway used by the Omicron variant to gain cell entry, HCQ may be the preferred drug for this variant.
- **Mouthwash:** 3 times a day. Gargle three times a day (do not swallow) with an antiseptic-antimicrobial mouthwash containing: chlorhexidine, cetylpyridinium chloride; 1% povidone-iodine; or eucalyptus, menthol, and thymol. If tooth staining occurs, discontinue use and try another product.
- **Nasal spray** with 1% povidone-iodine: 2-3 times a day. Do not use for more than 5 days in pregnancy. Products include Immune Mist™, CofixRX™, Viraldine™, or IoNovo™. If premixed product is not available, dilute the more widely available 10% solution (see box) and apply 4-5 drops to each nostril every 4 hours.
- **Quercetin** (or a mixed flavonoid supplement): 250-500 mg twice a day. Due to a possible interaction between quercetin and ivermectin, these drugs should not be taken simultaneously (i.e., should be staggered at different times of day.) As supplemental quercetin has poor solubility and low oral absorption, lecithin-based and nanoparticle formulations are preferred.
- **Nigella sativa (black cumin):** If using seeds, take 80 mg/kg once a day (or 400 to 500 mg of encapsulated oil twice a day).
- **Honey:** 1 g/kg one to two times a day. Do not give honey to infants (under 12 months of age).
- **Melatonin:** 5-10 mg before bedtime (causes drowsiness). Slow- or extended-release preferred.
- **Curcumin (turmeric):** 500 mg twice a day. Take with full-fat milk and black pepper to enhance absorption. Treatment for more than 14 days is not suggested.
- **Zinc:** 75-100 mg daily. Take with HCQ.
- **Probenecid:** 1000 mg twice daily for five days.
- **Aspirin:** 325 mg daily (unless contraindicated).
- **Kefir and/or Bifidobacterium Probiotics:** NOTE: Depending on the brand, these products can be very high in sugar, which promotes inflammation. Look for brands without added sugar or fruit jellies and choose products with more than one strain of lactobacillus and bifidobacteria. Try to choose probiotics that are also gluten-free, casein-free, and soy-free.
- **Vitamin C:** 500-1000 mg twice a day.
- **Metformin:** 500 mg on day 1, 500 mg twice daily on days 2 through 5, then 500 mg in the morning and 1000 mg in the evening up to day 14.

### About this protocol

At the beginning of the pandemic, FLCCC developed the MATH+ protocol to guide treatment of the advanced (pulmonary) phase of COVID-19, with the goal of reducing hospital mortality.

However, it soon became obvious that our emphasis needed to shift to prevention and early treatment to keep patients from requiring hospitalization in the first place and from dying from this largely preventable disease.

### More information

To learn about nutritional therapeutics and how they can help with COVID-19, visit [geni.us/COVID\\_nutrition](https://geni.us/COVID_nutrition)

For additional information on early treatment, the rationale behind these medications, and other optional treatments, see [I-CARE: Early COVID Treatment Protocol](#)

Early treatment is critical and the most important factor in managing this disease.

Read about [the safety of vitamins and nutraceuticals in pregnancy](#).

Search [directories of providers and pharmacies](#).

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**FIRST LINE THERAPIES**

- **Home pulse oximeter:** Monitoring of oxygen saturation is recommended in symptomatic patients, due to the chance of asymptomatic hypoxia (no shortness of breath). Take multiple readings over the course of the day and regard any downward trend as ominous. Baseline or ambulatory desaturation under 94% should prompt consultation with primary or telehealth provider, or evaluation in an emergency room. (See box for further guidance.)

- Only accept values associated with a strong pulse signal
- Observe readings for 30–60 seconds to identify the most common value
- Warm up extremities prior to taking a measurement
- Use the middle or ring finger
- Remove nail polish from the finger on which measurements are made

**SECOND LINE THERAPIES**

In order of priority/importance

Add the following to first line therapies above if: 1) more than 5 days of symptoms; 2) poor response to first line agents; 3) significant comorbidities).

- **Nitazoxanide:** 500 mg twice a day for 5 days.
- **Vitamin D3:** For patients with acute COVID-19 infection, calcifediol as dosed in Table 3 is suggested.
- **Lactoferrin:** 100-400 mg daily
- **Diphenhydramine (Benadryl):** 25-50 mg every 6 hours
- **B complex vitamins**
- **N-acetyl cysteine (NAC):** 600-1200 mg orally twice a day.
- **Omega-3 fatty acids:** 4 g daily.
- **Fluvoxamine:** 25-50 mg twice a day for 1 week. **NOTE: Due to serious risks of acute anxiety that may progress to mania or suicidal/violent behavior, this drug should not be prescribed for COVID for longer than two weeks.**

**Table 1. How to calculate ivermectin dose**

Ivermectin is available in different strengths (e.g., 3, 6, or 12 mg) and administration forms (tablets, capsules, drops, etc.). Note that tablets can be halved for more accurate dosing, while capsules cannot. Do not crush the tablets.

How much do I weigh?		The protocol says 0.4 mg/kg; how much should I take?	The protocol says 0.6 mg/kg; how much should I take?
70–90 lb	32–40 kg	16 mg	24 mg
91–110 lb	41–50 kg	20 mg	30 mg
111–130 lb	51–59 kg	24 mg	36 mg
131–150 lb	60–68 kg	27 mg	40.5 mg
151–170 lb	69–77 kg	30 mg	45 mg
171–190 lb	78–86 kg	32 mg	48 mg
191–210 lb	87–95 kg	36 mg	54 mg
211–230 lb	96–104 kg	40 mg	60 mg
231–250 lb	105–113 kg	44 mg	66 mg
251–270 lb	114–122 kg	48 mg	72 mg
271–290 lb	123–131 kg	52 mg	78 mg
291–310 lb	132–140 kg	56 mg	84 mg

**About ivermectin**

Ivermectin is a well-known, FDA-approved drug that has been used successfully around the world for more than four decades. One of the safest drugs known, it is on the WHO’s list of essential medicines, has been given over 3.7 billion times, and won the Nobel Prize for its global and historic impacts in eradicating endemic parasitic infections in many parts of the world.

Review the [totality of supporting evidence for ivermectin in COVID-19](#).

Ivermectin is a remarkably safe drug with minimal adverse reactions (almost all minor), however its safety in pregnancy has not been definitively established. Talk to your doctor about use in pregnancy, particularly in the first trimester.

Potential drug-drug interactions should be reviewed before prescribing ivermectin (see [I-CARE: Early COVID Treatment Protocol](#) for more information). The most important drug-drug interactions occur with cyclosporin, tacrolimus, antiretroviral drugs, and certain antifungal drugs.

**High-risk patients may consider:**

- Combining HCQ & ivermectin
- Nattokinase 2000-4000 FU/day for 15 days OR Apixaban 5 mg daily for 15 days OR Rivaroxaban 10 mg daily for 15 days.
- Anticoagulants should only be considered in patients with low risk of bleeding.
- Spironolactone 200 mg once daily for 7 days (avoid in patients with impaired renal function).

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**Table 2.** Proposed medication schedule for first line treatments

	Breakfast	Lunch	Dinner	Bedtime
Ivermectin		✓		
Hydroxychloroquine	✓		✓	
Mouthwash/nasal spray	✓	✓	✓	
Quercetin	✓		✓	
Nigella sativa		✓		
Melatonin				✓
Curcumin	✓		✓	
Zinc	✓		✓	
Aspirin	✓			
Probiotics		✓		
Vitamin C	✓		✓	
Pulse oximetry	✓	✓	✓	

**Table 3.** A Single-Dose Regimen of Calcifediol to Rapidly Raise Serum Levels above 50 ng/mL

Body Weight (lbs)	Body Weight (kgs)	Calcifediol (mg)	Equivalent in IU	If Calcifediol is not available, a bolus of Vitamin D3
15–21	7–10	0.1	16,000	20,000
22–30	10–14	0.15	24,000	35,000
31–40	15–18	0.2	32,000	50,000
41–50	19–23	0.3	48,000	60,000
51–60	24–27	0.4	64,000	75,000
61–70	28–32	0.5	80,000	100,000
71–85	33–39	0.6	96,000	150,000
86–100	40–45	0.7	112,000	200,000
101–150	46–68	0.8	128,000	250,000
151–200	69–90	1.0	160,000	300,000
201–300	91–136	1.15	240,000	400,000
>300	>137	2.0	320,000	500,000

**A note about anesthesia and surgery:** Please notify your anesthesia team if you are using the following medications and/or nutraceuticals, as they can increase the risk of Serotonin Syndrome — a life-threatening condition — when opioids are administered:  
• Methylene blue • Curcumin • Nigella Sativa • Selective Serotonin Reuptake Inhibitors (SSRIs)

**Disclaimer**

The information in this document is our recommended approach to COVID-19 based on the best (and most recent) literature.

It is provided as guidance to healthcare providers worldwide on the early treatment of COVID-19.

Our guidance should only be used by medical professionals in formulating their approach to COVID-19.

Patients should always consult with their providers before starting any medical treatment.

As this is a highly dynamic topic, we will update these guidelines as new information emerges.

Please check to ensure you are using the latest version of this protocol.

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