

Multidisciplinary collaborative guidance on the assessment and treatment of patients with Long COVID: A compendium statement

TABLE 5: Commonly used medications for Long COVID symptoms^{†‡§}

Medication	Dose	Indications	Side Effects and Other Considerations
Propranolol	5-10 mg BID to QID	IST, POTS, OH, NCS, episodic hypertension	Bradycardia, hypotension, fatigue, depression, asthma exacerbation
Midodrine	2.5-10 mg TID to QID	POTS, OH, NCS, hypotension	Supine hypertension, scalp paresthesias, piloerection
Fludrocortisone	Start 0.05 mg QD for 1 week, then increase by 0.05 mg QD every week to a max dose of 0.2 mg QD	POTS, OH, NCS, hypotension	Hypokalemia, edema, headache
Pyridostigmine	30-60 mg BID to TID	POTS, OH, AN, GI dysmotility with constipation	Diarrhea, muscle twitching
H1 and H2 antihistamines in combination (e.g., cetirizine and famotidine)	Sample regimen: Cetirizine 10 mg daily or Levocetirizine 5mg daily; Famotidine 20 mg daily or bid	MCAS (e.g., itching, flushing, hives, rhinitis, episodic tachycardia, abdominal pain, diarrhea, headache, dyspnea)	Cetirizine: Fatigue, headache, abdominal pain, drowsiness, dizziness, dry mucous membranes. Famotidine: Headache, dizziness, constipation, diarrhea.
Low-dose naltrexone (60-62)	Sample regimen: Start 1 mg QD for 4 weeks, then increase by 1 mg QD every 4 weeks to a max dose of 4.5 mg QD being studied	Fatigue, PEM/PESE, headache	Often requires compounding. Diarrhea and nausea
Methylphenidate	5-10 mg BID to TID	POTS, OH, NCS, brain fog, fatigue	Headache, tachycardia, insomnia, PEM/PESE exacerbation if over-exerts during drug's duration of action
Amantadine	100 mg QD to BID	Fatigue, brain fog	Contraindicated for ESRD Abrupt discontinuation can cause withdrawal symptoms Dry mouth, OH, neuropsychiatric symptoms, livedo reticularis, nausea, abdominal pain
Duloxetine	20-60 mg QD	Depression (especially if coexisting neuropathic pain), OH, NCS	Hypertension, nausea, Increased perspiration
Fluoxetine	10-40 mg QD	Anxiety (especially if predominant symptom), depression, NCS	Anxiety, insomnia, nausea
Bupropion	75-150 mg QD to BID	Depression (especially if neurovegetative symptoms), fatigue, hypersomnolence, POTS, NCS	Anxiety, insomnia, nausea, decreased seizure threshold
Gabapentin	100-300 mg QHS to TID, then increase 100-300 mg every week	Neuropathic pain, poor sleep quality	Needs renal dosing. Brain fog, sleepiness, dizziness, nausea
COVID-19 vaccine ⁶³⁻⁶⁷	Annual booster	Lower risk of subsequent COVID infection sequelae and reduce the severity and duration of PASC	Vaccine reaction or worsening of symptoms

[†]Supplements including branched-chain amino acids, omega-3 fatty acids, vitamin B12, vitamin B2 (riboflavin), vitamin C, vitamin D, magnesium, L-Carnitine, Coenzyme Q10, ginseng, Echinacea, and many others have been suggested to alleviate chronic fatigue and pain due to other causes such as multiple sclerosis, fibromyalgia, and myalgic encephalomyelitis / chronic fatigue syndrome (ME/CFS).⁷⁶⁻⁸⁰

[‡]Given the current state of evidence, medication utilization in Long COVID generally follows standard practice regarding indications and dosing, with extra attention to: 1) starting doses low and ramping up slowly, 2) prioritizing patient preference, 3) using caution with medications that may worsen some Long COVID symptoms while improving others, and 4) tapering off if no noticeable benefit.

[§]The National Institutes of Health (NIH) Researching COVID to Enhance Recovery (RECOVER) initiative is investigating the effectiveness of the following medications for Long COVID: nirmatrelvir-ritonavir (Paxlovid) at 300 mg nirmatrelvir (two 150 mg tabs) + 100 mg ritonavir (one 100 mg tab) BID for 15-25 days; ivabradine and gamunex-C intravenous immunoglobulin (IVIg) for POTS; modafinil and solriamfetol for hypersomnia; and melatonin for complex sleep disturbances.

Abbreviations: PEM (post-exertional malaise), PESE (post-exertional symptom exacerbation), IST (inappropriate sinus tachycardia), POTS (postural orthostatic tachycardia syndrome), OH (orthostatic hypotension), NCS (neurocardiogenic syncope), AN (autonomic neuropathy), QD (once daily), BID (twice daily), TID (three times daily), QID (four times daily), QHS (nightly).

