



Covid-19 Treatment Updates

Chapter 2

April 23, 2020





NIH Releases COVID-19 Treatment Guidelines

- › <https://covid19treatmentguidelines.nih.gov/therapeutic-options-under-investigation/>
 - No groundbreaking revelations (Living document to be updated as studies are released)
 - › Nothing FDA approved for COVID-19
 - › Hydroxychloroquine is not recommended or condemned –only mentions close monitoring of QT interval
 - Discourages azithromycin + hydroxychloroquine due to toxicity
 - › Discourages use of HIV protease inhibitors (Kaletra™)
 - Unfavorable pharmacodynamics negative clinical trial data
 - › Convalescent Plasma & IL-6 inhibitors
 - Insufficient data to suggest or discourage use at this time
 - <https://ccpp19.org/about/index.html> & [American Red Cross Program](#)
 - › Other immunomodulators--Only use in clinical trials
 - Interferon
 - Janus Kinase inhibitors (baricitinib)



NIH Guidelines

> ACE/ARB

- Continue taking if used as an outpatient
- Not recommended as a treatment option

> Corticosteroids

- Avoid systemic use in most cases, can continue inhaled versions
- Low dose corticosteroids for shock reversal (BII recommendation)
- ACOG- betamethasone (CIII)
 - > discourages use in late preterm period 34-36weeks if delivery anticipated w/ 7 days
 - > HMG-CoA (statins)
 - > <34 weeks continue to offer
- Continue using if treating cardiovascular disease
- Not considered a viable treatment med

> NSAID

- Continue using if previously prescribed
- No difference in antipyretic strategy (APAP/NSAID) regardless of COVID Status



Convalescent Plasma

- › Ye et al. (Apr 15, 2020). Treatment with convalescent plasma for COVID-19 patients in Wuhan, China. Jour of Med Virol.
- › <https://doi.org/10.1002/jmv.25882>
- › n=6
- › Resolution of ground glass opacities in 5/6 patients
- › Rapid elimination of virus and presence of antibodies found
- › Peer reviewed data

Glucocorticoid Meta-analysis April 22nd *Lu et al*

› 22 studies

- evaluated the effectiveness and safety of glucocorticoids in children and adults with COVID-19, SARS and MERS.
- use did not reduce mortality, duration of lung inflammation but had a significant reduction in the duration of fever.
- They warn against the use of systemic glucocorticoid therapy for its ability to prolong the duration of hospital stay in all patients (COVID-19, SARS and MERS) and increased risk of adverse reactions. Lu et al. (Apr 22, 2020).
- Glucocorticoids for COVID-19 effectiveness and safety of glucocorticoids to treat COVID-19: A rapid review and meta-analysis. Pre-print downloaded Apr 22 from

<https://doi.org/10.1101/2020.04.17.20064469>





Hydroxychloro

> Prevention

- HERO-HCQ t
Hydroxychloro
- > Results not

> Treatment—l

- VA retrospec
- > N=368, out
- > 28% died o
- > 11% died o
- > Not peer re



racking if prophylactic
lth care workers.

or publication

ore severe cases

Pharmaceutical Fill Rates

- › Overall demand increased
 - 87% from January to March
 - Increased 213% January to April
- › Sedatives and anesthetics
 - Demand fell 4% April 6th-10th
 - Fill rate Fell to 49%
- › DEA allowing manufacturers to increase production 15% above quotas
 - Fentanyl, morphine, hydromorphone, codeine, ephedrine, and pseudoephedrine
 - Allowing more imports of ketamine, diazepam, midazolam, lorazepam
 - › These must sit in quarantine for 21 days though





Emerging studies and treatment theories

- › Iron chelation therapy—adjunct possibility
 - RNA/DNA synthesis requires iron stores
 - Emerging study to see if iron chelation therapy has (+) COVID effects
 - <https://link.springer.com/article/10.1007/s40588-020-00140-w>
- › Vaccine Development—16 active participants
 - Roche estimating no earlier than 2021
 - Sanofi capacity to make 600 million doses
 - Moderna started a clinical trial of its vaccine March 16th
 - › [mRNA-1273](#)

Melatonin adjuvant proposed effects *Life Sci June 2020*

Putative pathogenesis of COVID-19 and potential adjuvant use of melatonin.

