Denver Health Treatment Guidance for SARS-CoV-2 Infection/COVID-19

This guidance is for patients who test positive for SARS-CoV-2*. There is minimal available evidence from randomized clinical trials to support this guidance. This guidance is derived from in vitro and pre-clinical trial data and expert opinion. This treatment guidance is likely to evolve rapidly. Refer to the COVID subsite or DH Antibiotic App for the most up to date guidance.

All adult inpatients who test positive for SARS-CoV-2 will be screened for inclusion in the remdesivir plus standard of care vs standard of care alone, randomized, controlled trial.
The guidance that follows will be considered standard of care regardless of remdesivir study enrollment.

Clinical Situation	Treatment	Special Considerations & Monitoring of hydroxychloroquine (HCQ)
Outpatients	Supportive care	N/A
Hospitalized adult patients not requiring ICU-level care regardless of risk factors** for disease progression	Hydroxychloroquine 400 mg PO BID x 1 day, then 200 mg PO BID x 4 days *For clinically stable patients admitted for an indication other than COVID-19, consider supportive care only.* Patients will not be discharged on HCQ if they discharge prior to completing a 5 day course	• Place patient on telemetry; if QTc is <470 msec, proceed without EKG, if >470 obtain baseline EKG. • D/c other QTc prolonging meds • Avoid HCQ if QTc >500 msec or discuss with cardiology risk/benefit • Use w/caution if QTc >470 • Obtain follow up EKG 2 hrs after 2nd dose of 400 mg HCQ • If QTc increases by <50 msec & absolute QTc <500 msec, proceed w/maintenance dose • If QTc increases by >50 msec or if absolute QTc >500 msec, proceed to maintenance dose & recheck EKG daily x 2 days. • D/c HCQ if any evidence of Torsades on tele. Most toxicities are associated with long-term use. Other risks include but are not limited to arrhythmia, cardiomyopathy, bone marrow suppression, and hypoglycemia - monitor for these ADRs
Hospitalized adult patients requiring ICU-level care	Hydroxychloroquine 400 mg PO BID x 1 day, then 200 mg PO BID x 4 days *To extend therapy beyond 5 days, Antimicrobial Stewardship approval required 303-201-3342, M-F 8a-5p, or ID Attending on call after hours. Approval not otherwise needed for patients with a +SARS-CoV-2 test.* Consider addition of IL-6 blockade with tocilizumab. ID Consult required – see separate criteria for use document.	
Hospitalized pediatric patients	Hydroxychloroquine 6.5 mg/kg/dose (max 400 mg) PO BID x 1 day, then 3.25 mg/kg/dose (max 200 mg) PO BID x 4 days *Peds ID approval required*	
Exposure to a patient or close contact known to be SARS-CoV-2 positive	Post-exposure prophylaxis is not recommended	N/A

*For patients who test negative for SAS-CoV-2 or otherwise fall outside of this guideline, ID Consult required for use of one of the above agents

** Risk factors for COVID-19 disease progression include: age >60 y.o., comorbidities such as cardiovascular disease, uncontrolled diabetes, chronic respiratory disease, hypertension, or immunosuppression

1. References: Colson P, Rolain JM, Raoult D. Chloroquine for the 2019 Novel Coronavirus SARS-CoV-2. *Int J Antimicrob Agents*. 2020; 55(3): 105923.
2. Yao X, Ye F, Zhang M, et al. *In Vitro* Antiviral Activity and Projection of Optimized Dosing Design of Hydroxychloroquine for the Treatment of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). *Clin Infect Dis*. 2020; pii: ciaa237.
3. Wang M, Cao R, Zhang L, et al. Remdesivir and Chloroquine Effectively Inhibit the Recently Emerged Novel Coronavirus (2019-nCoV) *In Vitro*. *Cell Res*. 2020; 30(3): 269-271.
4. Colson P, Rolain JM, Lagier JC, et al. Chloroquine and Hydroxychloroquine as Available Weapons to Fight COVID-19. *Int J Antimicrob Agents*. 2020: 105932. [Epub ahead of print].
5. Xu X, et al. Effective treatment of severe COVID-19 patients with tocilizumab. chinaXiv:202003.00026v1
6. Chen Z, et al. Efficacy of hydroxychloroquine in patients with COVID-19: results of a randomized clinical trial. https://doi.org/10.1101/2020.03.22.20040758