CommonSpirit

COVID-19 Outpatient Medication Stewardship Guidance for Retail and Clinic Pharmacists and Providers

May 5, 2020 (Revisions are highlighted)

Current State:

- Medications to treat COVID-19 are **currently on shortage or may become short in the near future.**
- If patients are well enough to be discharged, continuation of hydroxychloroquine after discharge is discouraged. The FDA only recommends use of hydroxychloroquine (HQ) in clinical trials or hospitalized patients. This is due to lack of evidence of benefit and inability to appropriately monitor. There is no data to support using hydroxychloroquine or chloroquine for prophylaxis.
- While remdesivir has been approved for emergency authorization use, it is only for patients who are hospitalized. As of 5/4/2020 at Noon MDT, FEMA has not yet made any supply available.

General patient care treatment guidance:

- Patients diagnosed with pneumonia with suspected COVID-19 infection should begin community acquired pneumonia (CAP) treatment until COVID-19 is confirmed.
- CDC recommends supportive care as best care in COVID-19 infected patients in the outpatient setting.
- The National Institute of Health (NIH) states, **"There are insufficient data for the Panel to recommend either for or against any antiviral or immunomodulatory therapy in patients with COVID-19 with mild or moderate illness (AIII)."**

Medication specific treatment guidance:

Hydroxychloroquine Chloroquine	• There are now concerns regarding the lack of benefit and potential toxicity with HQ for COVID-19. • The FDA only recommends use of hydroxychloroquine in clinical trials or hospitalized patients.
Azithromycin	• The NIH recommends against HQ and azithromycin combination specifically for COVID. Azithromycin, or alternatively doxycycline, can be used empirically as part of a CAP pathway while confirmatory testing is occurring.
Kaletra (lopinavir-ritonavir)	• In a recent in vivo study, it did not show benefit compared to standard of care. **The NIH recommends against the use of this therapy at this time.** Additional studies are ongoing, including those with combination therapy.
Ribavirin	• There is no evidence to support ribavirin monotherapy as a treatment for COVID-19 at this time.
Oral steroids	• Oral steroids should be avoided, if possible, for COVID-19, because of the potential for prolonging viral replication as observed in MERS-CoV patients, unless indicated for other indications, such as COPD, asthma, etc.
General inhaled treatment	• If needed for non-COVID-19 indications, administer inhaled (by mouth or nasal) medications in the patient's home setting in a closed room away from other people to minimize exposure.

Beta agonist and anticholinergic inhaled treatment	• Carefully assess each person under investigation (PUI) or known COVID-19 positive patient prior to ordering any inhaled therapy.
	  ◦ NOTE: The American Association of Respiratory Care SARS CoV-2 Guidance Document states that there is no role for inhaled bronchodilation in patients with COVID-19 unless the patient has co-morbid asthma or COPD.
	  ◦ If treatment is necessary and patients are low risk for COVID-19, nebulized therapy with use of appropriate PPE may be considered in the setting of MDI shortage. Consult local Infection Control for nebulized therapy process guidance.
	• Reserve albuterol for PUI or COVID-19 positive patients with known asthma and clinical signs of bronchospasm (wheezing).

	• Reserve ipratropium for PUI or COVID-19 positive patients with COPD.
NSAIDs	• Persons with COVID-19 who are taking NSAIDs for a co-morbid condition should continue therapy as previously directed by their physician. May use either acetaminophen or NSAIDS as antipyretic strategies. Please note, that not all fevers need to be brought to normothermia
ACE inhibitors and ARBs	• The HFSA, ACC, and AHA recommend continuation of RAAS (renin-angiotensin-aldosterone system) antagonists for those patients who are currently prescribed such agents for indications for which these agents are known to be beneficial, such as heart failure, hypertension, or ischemic heart disease. Do not use these agents for the sole treatment of COVID-19.
Statins	• Continue statins if prescribed for other indications. Do not use these agents for the sole treatment of COVID-19.

Supplement guidance

Many supplements are being trialed anecdotally for treatment of COVID-19. There are continued claims without substantiated clinical efficacy. The below list of supplements does not have reliable evidence for prevention or treatment of COVID-19:

- Colloidal silver
- Echinacea
- Elderberry
- Airborne™
- Emergen-C™
- Melatonin
- Zinc
- Thiamine
- Ascorbic acid

Prescription guidance:

- Limit hydroxychloroquine, chloroquine, and lopinavir/ritonavir (Kaletra®) to a one month supply on patients for continuation of established therapy for documented rheumatological disease or HIV infection
- Valid prescription will include diagnosis documentation of new chronic rheumatological disease or HIV infection.
- If hydroxychloroquine or chloroquine is written for COVID-19 prophylaxis, discuss with the provider the lack of data to utilize for this. Convey that it is inappropriate at this time. It should not be dispensed.
- Azithromycin therapy for CAP should not exceed 5 days.
- If MDI albuterol is not available or patient lives alone dispensing nebulized albuterol is appropriate. Administration of respiratory medications may cause the patient to cough. Instruct patients to self-administer nebulized medications in an open air environment (e.g. porch or patio). If an open air environment is not available an isolated room within their home is an acceptable alternative.

References

1. FDA. FDA cautions against use of hydroxychloroquine or chloroquine for COVID-19 outside of the hospital setting or a clinical trial due to risk of heart rhythm problems. Available from: https://www.fda.gov/drugs/drug-safety-and-availability/fda-cautions-against-use-hydroxychloroquine-or-chloroquine-covid-19-outside-hospital-setting-or
2. National Institute of Health. COVID-19 Treatment Guidelines. Available from: https://covid19treatmentguidelines.nih.gov/overview/ management-of-covid-19/
3. Gautret P, Lagier J, Parola P, et al. Hydroxychloroquine and azithromycin as a treatment of COVID-19: results of an openlabel nonrandomized clinical trial. Available from: https://drive.google.com/file/d/186Bel9RqfsmEx55FDum4xY_IlWSHnGbj
4. Yao X, Zhang M, Cui C, 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). Published by Oxford University Press for

the Infectious Diseases Society of America. Downloaded from https://academic.oup.com/cid/advance-article-abstract/doi/10.1093/cid/ciaa237/5801998

5. Clinical Pharmacology. Drug Interaction Report: hydroxychloroquine and azithromycin. Retrieved from https://www.clinicalkey.com/ pharmacology/reports/interactions?gpcid=1046&gpcid=89&dt=true&type=p
6. American College of Cardiology. Ventricular arrhythmia risk due to hydroxychloroquine-azithromycin treatment for COVID-19. Available from: https://www.acc.org/latest-in-cardiology/articles/2020/03/27/14/00/ventricular-arrhythmia-risk-due-to-hydroxychloroquineazithromycin-treatment-for-covid-19
7. https://www.cdc.gov/coronavirus/2019-ncov/hcp/faq.html
8. FDA advises patients on use of non-steroidal anti-inflammatory drugs (NSAIDs) for COVID-19. Available from https://www.fda.gov/drugs/ drug-safety-and-availability/fda-advises-patients-use-non-steroidal-anti-inflammatory-drugs-nsaids-covid-19
9. Cao B, Wang Y, Wen D, et al. A trial of lopinavir–ritonavir in adults hospitalized with severe Covid-19. NEJM. March 18, 2020. DOI: 1056/NEJMoa2001282 Available from: https://www.nejm.org/doi/full/10.1056/NEJMoa2001282 10.
10. HFSA/ACC/AHA Statement Addresses Concerns Re: Using RAAS Antagonists in COVID-19. Available from: https://www.acc.org/latestin-cardiology/articles/2020/03/17/08/59/hfsa-acc-aha-statement-addresses-concerns-re-using-raas-antagonists-in-covid-19

Distributed by Karen McConnell, PharmD, on behalf of the CommonSpirit Health System P & T Committee
KarenMcconnell@catholichealth.net