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Consultant Pharmacists for Healthcare Organizations, Industry, and the Community.

To: All Administrators, Directors of Nursing, Medical Directors, and Prescribers

From: Dr. William C. Hallett, Pharm.D., MBA, BCGP, C-MTM

Date: April 18, 2020

Subject: COVID-19 Medication Use Update:

“Beyond Hydroxychloroquine: Focus on Anticoagulants”

Continuing in our ongoing series on medication use issues COVID-19, our attention now turns to the emergence of anticoagulants as potential new tools in the ongoing battle. For a complete list of our medication related COVID-19 memos and tools, [please click here](https://guardianconsulting.com/covid-19-updates/), or copy/click this link: <https://guardianconsulting.com/covid-19-updates/>

Background:

In recent days, many clinicians have reached out to us requesting information on the how and why of anticoagulants in the battle to improve outcomes in serious COVID-19 infections. Please note that this is not meant to be an endorsement in any way of the treatments listed below. This is presented as an informational update for clinicians, as we recognize that some prescribers may be considering these options, and our facilities may be asked to admit residents that have received or are currently receiving these treatments.

Also, please note that as new information on the pathogenesis and treatment of COVID-19 emerges, clinical treatment guidance and recommendations may change significantly and rapidly. While every effort has made been to insure information is accurate as of the time of this publication, other information, including results of formal clinical trials, must be considered. Prescribers and all clinicians are encouraged to continually evaluate the latest information available before making any prescribing or deprescribing decisions.

Assistance from us, including research and information on other topics:

We remain completely available should anyone need assistance when considering medication issues in COVID-19. We continue to monitor the clinical literature and have a wealth of information and research capabilities at our disposal. We welcome your questions along with your comments and feedback. ***Please do not hesitate to email or call if we can be of assistance!***



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Medications for the PREVENTION OF COMPLICATIONS in COVID-19

Anticoagulants

Enoxaparin (Lovenox), Heparin, Apixaban (Eliquis), Rivaroxaban (Xarelto), and others

Discussion: Data out of China was discussed in a [recent webinar](#) held jointly by the American College of Cardiology and the Chinese Cardiovascular Association. In short, disseminated intravascular coagulation was noted by Chinese physicians in COVID-19 patients, with clots affecting not just the heart and lungs, but also the liver and kidneys. Armed with this information, physicians have become increasingly concerned not just about large vessel clots, but also with microvascular thrombosis as a potential significant cause of morbidity and mortality in COVID-19. [A good summary article can be found here](#), or by copying/clicking this link: <https://www.medpagetoday.com/infectiousdisease/covid19/85865>

Utilization: Despite the promising theoretical benefits and anecdotal reports in support of use, there still remains a paucity of data to support improved outcomes. Regardless, it appears likely that LTC facilities will see an increased utilization of anticoagulants, as major health systems and teaching hospitals adopt protocols that include anticoagulants for their COVID-19 patients and these patients recover and are discharged. *See the links below for dosing strategies.*

Clinical Concerns: The obvious are proper patient selection, and of course bleed risk. Clinicians will need to carefully evaluate how and when these drugs are applied, and just as important, when use of these medications would be contraindicated. Staff will also need to properly care plan for bleed risk, just as they would for any resident placed on an anticoagulant for any reason.

Additional Challenges for Prescribers: Looking beyond the initial prescription of an anticoagulant, clinicians in LTC facilities receiving residents on these treatments will be faced with the challenge of *managing duration of use*. Even if efficacy and need are presumed, there are real questions as to when to discontinue these treatments. Current protocols we have seen have varied from 2 to approximately 6 weeks, but this could and likely will change as monitoring of patients in their post COVID-19 infection period takes place and more is learned. Undoubtedly, however, the answer is NOT to continue indefinitely, as these medications carry significant risks of their own. We will, as always, continue to monitor for clinical developments in this area.

Helpful links and Resources on Use and Dosing of Anticoagulants in COVID-19:

1. [Massachusetts General Hospital Guidelines:](https://www.massgeneral.org/assets/MGH/pdf/news/coronavirus/guidance-from-mass-general-hematology.pdf)
<https://www.massgeneral.org/assets/MGH/pdf/news/coronavirus/guidance-from-mass-general-hematology.pdf>
2. [Mt Sinai Anticoagulation Protocol:](https://emergencymedicinecases.com/wp-content/uploads/2020/04/COVID-19-Anticoagulation-Algorithm-version_final_1.1.pdf) https://emergencymedicinecases.com/wp-content/uploads/2020/04/COVID-19-Anticoagulation-Algorithm-version_final_1.1.pdf