Early Intervention Screening for CV Disease related to COVID-19

Initial cardiac evaluation for all COVID positive or strong suspicion on medical floor or in ER:

- CBC, BMP, LDH, procalcitonin, D-Dimer, CRP, LFT, INR, PTT per usual protocol on admission and day 3.
- EKG, troponin, CPK, NT-proBNP at admission,
- If treated with Hydroxychloroquine/Chloroquine, EKG at start of treatment (*no need to repeat admission EKG if chloroquine started within 2 days of admission*) and after 2 days of treatment to assess for QTc prolongation and conduction disorders [1,2]. Daily check K and Mg and correct for K>4 and Mg>2

If abnormal EKG (including arrythmia, conduction disorders and prolongation of QTc>500 ms) or cardiac biomarkers, virtual consultation with cardiology to decide on further work-up and treatment as appropriate

Follow up evaluation on medical floor:

- Troponin and EKG every other day of hospitalization.
- If Troponin elevated > 2x normal or abnormal ECG consultation with cardiology to decide on further work-up and treatment

Follow up evaluation ICU:

- Troponin daily
- If Troponin >2x normal , perform EKG

Elevated troponin, abnormal EKG and significant drop in CV O2 saturation may be due to[3, 4]:

- *ACS*
- *Coronary thrombosis*
- *Myocarditis*
- *Demand ischemia*

Cardiology consult necessary for further work up and management.

Heart Failure Phone Consult: 718-920-2626

Heart Failure email Consult: NYHFI@montefiore.org

Heart Failure Zoom consult – Live Chat: TBD

1. Fragasso G, Sanvito F, Baratto F, Martinenghi S, Doglioni C, Margonato A; Cardiotoxicity after low-dose chloroquine antimalarial therapy. Heart Vessels. 2009 Sep;24(5):385-7

2. Chatre C, Roubille F, Vernhet H, Jorgensen C, Pers YM; Cardiac Complications Attributed to Chloroquine and Hydroxychloroquine: A Systematic Review of the Literature; Drug Saf. 2018 Oct;41(10):919-931.

3. Chen, C., Zhou, Y. & Wang, D.W. SARS-CoV-2: a potential novel etiology of fulminant myocarditis. Herz (2020). https://doi.org/10.1007/s00059-020-04909-z

4. Hu H, Ma F, Wei X, Fang Y; Coronavirus fulminant myocarditis saved with glucocorticoid and human immunoglobulin; Eur Heart J. 2020 Mar 16. pii: ehaa190. doi: 10.1093/eurheartj/ehaa190

5. Zhou F et all; Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study; Lancet. 2020 Mar 11. pii: S0140-6736(20)30566-3