In an attempt to provide general guidance for cardiac testing in suspected or confirmed COVID-19 patients, please refer to the following recommendations.

General principles when considering cardiac lab testing and cardiac imaging in known or suspected COVID-19 patients.

A: Appropriate utilization of cardiac lab diagnostics: (ACC home page: Troponin and BNP Use in COVID-19 James L. Januzzi Jr., MD, FACC. 3/18/20)

1. **Hs-Trop:** Do not order or check unless there is clinical concern for AMI. Frequent elevations of hs-trop are expected with majority representing myocardial injury. Minimizing utilization to only clinically suspected AMI will decrease utilization of TTE.

   "Given the frequency and non-specific nature of abnormal troponin results among patients with COVID-19 infection, **clinicians are advised to only measure troponin if the diagnosis of acute MI is being considered on clinical grounds** and an abnormal troponin should not be considered evidence for an acute MI without corroborating evidence."

2. **Pro-BNP** – only check in HF suspected patients.

   "Patients with COVID-19 often demonstrate significant elevation of BNP or NT-proBNP. The significance of this finding is uncertain and should not necessarily trigger an evaluation or treatment for heart failure unless there is clear clinical evidence for the diagnosis."

B: Considerations for Echo:

-Judicious ordering of TTE

-Importantly: Will the study change management?

-If patient with suspected Covid-19: can the study wait until results back?

-Can POCUS be performed to answer the clinical question and/or guide need for TTE?

-If TTE required, can limited study answer the question; minimize study length?

Recommendations/protocol from Brigham and Women's Hospital (updated 3/23/20)

A. **Transthoracic Echo (TTE):**
   1. Do not order routine TTEs on COVID-19 patients.
      1. Cardiology consult or a trained provider should perform POCUS if:
         1. Significant troponin elevation or decline in ScvO2/MvO2
         2. Shock
         3. New heart failure (not pre-existing heart failure)
         4. New persistent arrhythmia
         5. Significant ECG changes
   2. If abnormalities are identified on POCUS (e.g. new reduction in LVEF < 50%), a formal TTE should be considered. Cardiology consult as needed.
      1. Where appropriate, order limited TTEs instead of full TTEs to shorten study length.

B. **Transesophageal Echo (TEE):**
   1. All TEEs will be reviewed on a case by case basis to determine essential nature of the study.
      -Can TTE answer the clinical question?
      -Will TEE impact or change immediate or short term patient management?

C. **Stress Testing:**
   1. Stress testing is likely not indicated in individuals with active or suspected COVID.
   2. Any question of possible stress testing should be directed to cardiology.