

Cardiovascular Care during the COVID- 19 Pandemic

Statement from Bangladesh Cardiac Society for the members



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কার্ডিয়াক সোসাইটি

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- The ongoing COVID- 19 pandemic imposes unprecedented challenges on healthcare delivery system throughout the world. At the present time , we have to focus our services to the care of the patients with cardiovascular emergencies as there is high suspicion of community COVID- 19 illness. Besides health care delivery , we have to prioritize **safety of healthcare providers along with the safety of the patients regarding COVID-19 infection**. As the pandemic COVID -19 demands unprecedented health care services, we need to impose austerity in our routine health care services and ensure the best utilization of the already constrained resources .

Presence of cardiovascular diseases, e.g., hypertension and heart failure, increases the risk of acquiring of and worsens the prognosis of COVID- 19. A significant proportion of COVID- 19 patients develop cardiovascular complications, including myocarditis, heart failure, acute coronary syndrome (ACS) and arrhythmia. On the other hand, non COVID- 19 patients may need treatment for ACS or chronic coronary syndrome during the pandemic.

In the light recommendation from WHO/ ACC/ APSC ,Bangladesh Cardiac Society likes to have some interim recommendations regarding care of cardiovascular patients till further evidence become available.

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COVID- 19 status of the patients with cardiovascular diseases

COVID- 19 status of the patients presenting with cardiovascular disease should be sought for. This should be done by positive history of travel from endemic zone, contact with COVID- 19 patients, consistent signs and symptoms of COVID- 19 illness, and appropriate testing,.

Cardiovascular diseases in patients not known to have COVID- 19

1. Stable patients with hypertension, ischaemic heart disease, heart failure, arrhythmia and congenital heart disease should continue their ongoing treatment.
2. They should strictly follow the general lifestyle measures for prevention of COVID- 19, including social distancing.
3. For non-emergent issues, they may contact nearest hospital for any advice . Routine healthcare visits are not advisable at this situation as it increases the chance of community transmission during travel and having mass gathering.
4. For emergencies, patients with or suspected of having cardiovascular emergencies, e.g., ACS, acute heart failure, arrhythmia, should go to the nearest hospitals with cardiac care facilities immediately.
5. For non-cardiac illness, including suspected COVID- 19, they should go to the hospitals designated by the government.

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Cardiovascular diseases in patients known or suspected to have COVID- 19

1. Stable patients with hypertension, ischaemic heart disease, heart failure, arrhythmia and congenital heart disease should continue their ongoing treatment at designated hospitals as per government policy.
2. Patients having or suspected of having cardiovascular emergencies, e.g., ACS, acute heart failure, arrhythmia, should go to the **designated** hospitals with cardiac care facilities immediately.

Management of Cardiovascular diseases during COVID- 19 pandemic

1. Stable cardiovascular diseases, e.g., hypertension, ischaemic heart disease, heart failure, arrhythmia and congenital heart disease should be managed conservatively as per current guidelines as before. This is equally applicable to the choice of antihypertensive drugs, including angiotensin converting enzyme inhibitors (ACEIs) and angiotensin receptor blockers (ARBs). ACEI or ARB should not be discontinued until further evidence is available.
2. Routine cath lab-based diagnostic and therapeutic procedures, including coronary angiogram, percutaneous coronary intervention (PCI), and device therapy should be cancelled or deferred when feasible.
3. Routine cardiac imaging including echocardiography, should be deferred.

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4. Acute coronary syndrome (ACS):

- a. ACS should not be diagnosed solely on the basis of elevated troponin I values in a COVID- 19 patient, because this may more commonly represent occurrence of myocarditis.
 - b. ACS, once diagnosed, should be managed as per the standard protocol, including anti-platelets, high-dose statins, and reperfusion therapy.
 - c. ST elevation myocardial infarction (STEMI) patients should get thrombolytic therapy as routine . Primary PCI may be considered in a centre where a cath lab has been designated to deal suspected COVID-19 infection in cases of complicated myocardial infarction with large area involvement e.g. persistent shock in anterior myocardial infarction.
 - d. Non-STEMI (NSTEMI) patients, if otherwise stable, should be managed with standard medical management.
 - e. A single cath lab should be designated for the COVID-19 patients.**
5. Other cardiac emergencies like acute heart failure, hypertensive emergency, and arrhythmia should be managed as per standard protocol.
6. Cardiopulmonary resuscitation (CPR) should be given with utmost precaution using appropriate personal protective equipment (PPE). Mechanical chest compression with a chest compression machine is preferable to manual compression if available.
- 7. COVID- 19 patients, confirmed or suspected, should preferably be dealt with in a separate dedicated COVID- 19 cardiac hospital, or at a separate, designated site within the existing cardiac care facility.**

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8. Cardiac investigations:

- a. Echocardiography: Routine echocardiography should be avoided. Rather, echocardiography should only be done in cases of dire necessity for decision making. Echocardiography, when essential, should be focused, taking minimum views and cutting examination time. Transoesophageal echocardiography (TOE) should be avoided in general.
- b. Electrocardiography (ECG) and chest Xray should be done where needed to make the diagnosis, however, reducing the number when feasible.
- c. Plasma BNP or NT-pro BNP, if available, may be done in selected cases to avoid or supplement echocardiography.
- d. In every case, strict protective measures from the reception room to ECG/ECHO room must be observed. Leads and probes are to be sterilised by sanitizer following use with each patient.

Pharmacotherapy related to COVID- 19 disease and cardiovascular safety

Hydroxychloroquine (HCQ), or chloroquine (CQ) with or without azithromycin may prolong corrected QT interval (QTc) and precipitate ventricular tachycardia (VT).

- Baseline ECG, renal function, hepatic function, serum potassium and serum magnesium should be done before starting the therapy.
- Should be avoided if history of long QT syndrome, or baseline QTc >480 msec (or >530-550 msec in patients with QRS >120 msec).

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- An ECG should be done 2-3 hours after the second dose of HCQ or CQ, and daily thereafter.
- If absolute QTc >500msec (or >530-550 msec if QRS >120 msec), or QTc increases by >60 msec, discontinuation of therapy should be considered.

Conclusion:

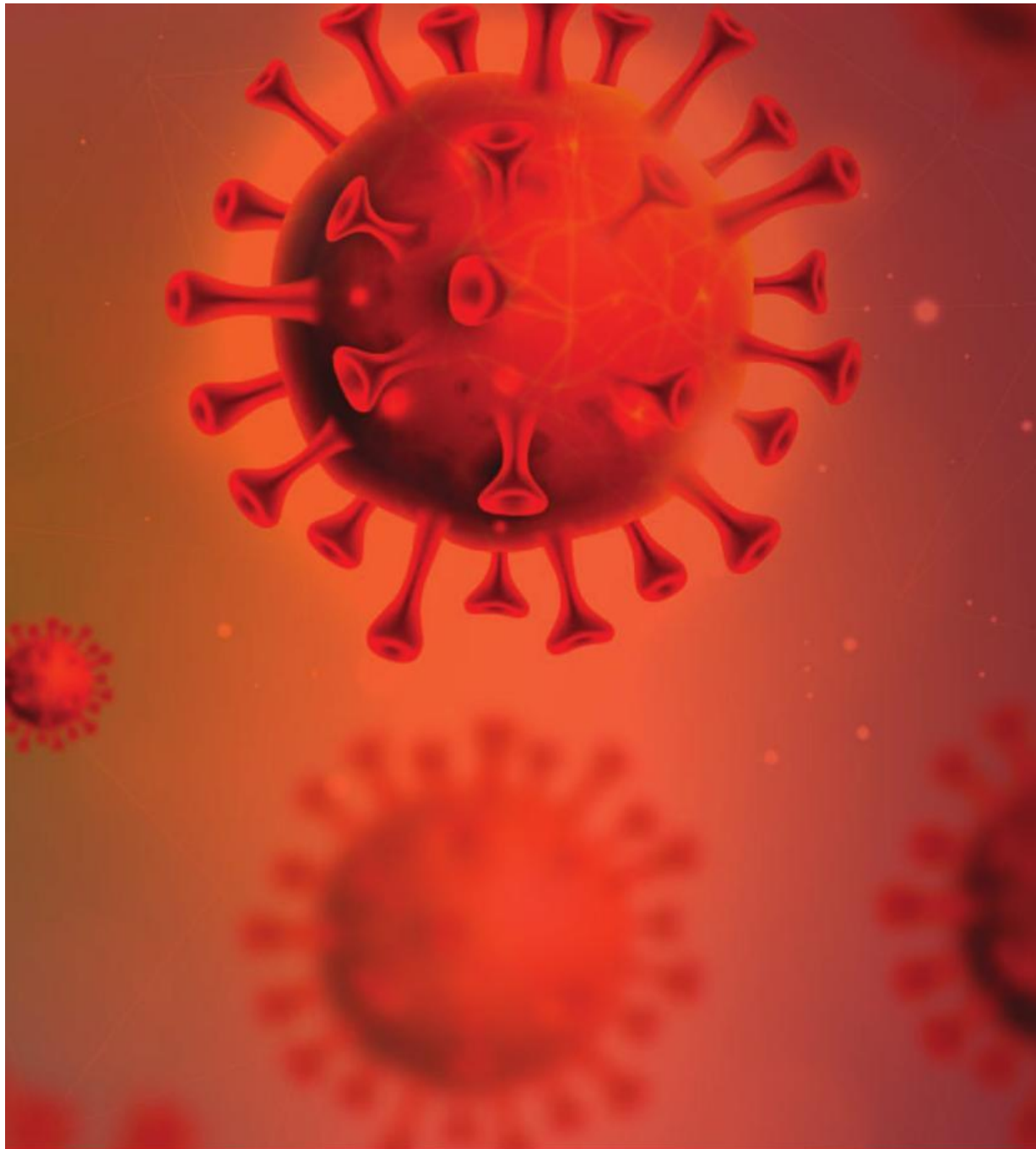
The present COVID 19 pandemic is rapidly evolving, along with which new evidence is becoming available. Bangladesh Cardiac Society is committed to update the recommendations for our members to optimize the care of cardiovascular patients.

The updates will be available at: **www.banglacardio.org**. We advise to remain updated from the website of our fellow societies. Members are requested to share their experiences with each other through mail.

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