

New Guidance on Management of Acute CVD During COVID-19

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March 30, 2020

Editor's note: Find the latest COVID-19 news and guidance in Medscape's [Coronavirus Resource Center](#).

The Chinese Society of Cardiology (CSC) has issued a consensus statement on the management of cardiac emergencies during the COVID-19 pandemic.

The document first appeared in the *Chinese Journal of Cardiology*, and a translated version was [published online](#) on March 27 in *Circulation*.

The consensus statement was developed by 125 medical experts in the fields of cardiovascular disease and infectious disease. This included 23 experts currently working in Wuhan, China.

Three overarching principles guided their recommendations:

1. The highest priority is prevention and control of transmission (including protecting staff)
2. Patients should be assessed both for COVID-19 and for cardiovascular issues
3. At all times, all interventions and therapies provided should be in concordance with directives of infection control authorities.

"Considering that some asymptomatic patients may be a source of infection and transmission, all patients with severe emergent cardiovascular diseases should be managed as suspected cases of COVID-19 in Hubei Province," notes writing chair and cardiologist Yaling Han, MD, General Hospital of Northern Theater Command, Shenyang, China.

In areas outside Hubei Province, where COVID-19 was less prevalent, this "infected until proven otherwise" approach was also recommended, although not as strictly.

Diagnosing CVD and COVID-19 Simultaneously

In patients with emergent cardiovascular needs in whom COVID-19 has not been ruled out, quarantine in a single-bed room is needed, they write. The patient should be monitored for clinical manifestations of the disease, and undergo COVID-19 nucleic acid testing as soon as possible.

After infection control is considered, including limiting risk for infection to healthcare workers, risk assessment that weighs the relative advantages and disadvantages of treating the cardiovascular disease while preventing transmission can be considered, write Han et al. At all times, transfers to different areas of the hospital and between hospitals should be minimized to reduce the risk for infection transmission.

The authors also recommend the use of "select laboratory tests with definitive sensitivity and specificity for disease diagnosis or assessment."

For patients with acute aortic syndrome or [acute pulmonary embolism](#), this means CT angiography. When acute [pulmonary embolism](#) is suspected, [D-dimer](#) testing and deep vein ultrasound can be employed, and for patients with [acute coronary syndrome](#), ordinary electrocardiography and standard biomarkers for cardiac injury are preferred.

In addition, "all patients should undergo lung CT examination to evaluate for imaging features typical of COVID-19.... Chest X-ray is not recommended because of a high rate of false negative diagnosis," the authors write.

Intervene With Caution

Medical therapy should be optimized in patients with emergent cardiovascular issues, with invasive strategies for diagnosis and therapy used "with caution," according to the Chinese experts.

Conditions for which conservative medical treatment is recommended during COVID-19 pandemic include ST-segment elevation [myocardial infarction](#) (STEMI) where [thrombolytic therapy](#) is indicated, STEMI when the optimal window for revascularization has passed, high risk non-STEMI (NSTEMI), patients with uncomplicated Stanford type B aortic dissection, acute pulmonary embolism, acute exacerbation of [heart failure](#), and hypertensive emergency.

"Vigilance should be paid to avoid misdiagnosing patients with [pulmonary infarction](#) as COVID-19 pneumonia," they note.

Diagnoses *warranting* invasive intervention are limited to STEMI with hemodynamic instability, life-threatening NSTEMI, Stanford type A or complex type B [acute aortic dissection](#), bradyarrhythmia complicated by [syncope](#) or unstable hemodynamics mandating implantation of a device, and pulmonary embolism with hemodynamic instability for whom IV thrombolytics are too risky.

Interventions should be done in a cath lab or operating room with negative-pressure ventilation, with strict periprocedural disinfection. PPE should also be of the strictest level. In patients for whom COVID-19 cannot be ruled out presenting in a region with low incidence of COVID-19, interventions should only be considered for more severe cases and undertaken in a cath lab, EP lab, or operating room "with more than standard disinfection procedures that fulfill regulatory mandates for infection control."

If negative-pressure ventilation is not available, air conditioning (e.g., laminar flow and ventilation) should be stopped.

Establish Plans Now

"We operationalized all of these strategies at Beth Israel Deaconess Medical Center several weeks ago, since Boston had that early outbreak with the Biogen conference, but I suspect many institutions nationally are still formulating plans," said Dhruv Kazi, MD, MSc, in an email exchange with *theheart.org* / *Medscape Cardiology*.

Although COVID-19 is "primarily a single-organ disease — it destroys the lungs" — transmission of infection to cardiology providers was an early problem that needed to be addressed, said Kazi.

"We now know that a cardiologist seeing a patient who reports shortness of breath and then leans in to carefully auscultate the lungs and heart can get exposed if not provided adequate personal protective equipment; hence the cancellation of elective procedures, conversion of most elective visits to telemedicine, if possible, and the use of surgical/N95 masks in clinic and on rounds."

Regarding the CSC recommendation to consider medical over invasive management, Kazi noted that this works better in a setting where rapid testing is available.

"Where that is not the case — as in the US — resorting to conservative therapy for all COVID suspect cases will result in suboptimal care, particularly when nine out of every 10 COVID suspects will eventually rule out."

One of his biggest worries now is that patients simply won't come. Afraid of being exposed to COVID, patients with MIs and strokes may avoid or delay coming to the hospital. "There is some evidence that this occurred in Wuhan, and I'm starting to see anecdotal evidence of this in Boston," said Kazi. "We need to remind our patients that if they experience symptoms of a heart attack or stroke, they deserve the same life-saving treatment we offered before this pandemic set in. They should not try and sit it out." *Circulation*. 2020;48:189-194. Published online March 27, 2020. [Abstract](#)