



Covid-19: Doctors should be alert for signs of myocardial injury, says NICE

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Doctors treating patients with known or suspected covid-19 should be vigilant for signs of acute myocardial injury, a new rapid guideline from the National Institute for Health and Care Excellence has said.¹

Symptoms of acute myocardial injury include chest pain, heart palpitations, severe tiredness, and shortness of breath and are similar to the respiratory complications of covid-19 so might be overlooked, particularly in patients without pre-existing heart disease.

Acute myocardial injury was observed in 9.5% of all patients who died in hospital in Italy with covid-19, NICE pointed out, and its guideline is aimed at helping healthcare professionals who are not cardiology specialists identify, monitor, and manage patients with covid-19 and heart problems. NICE emphasised that acute myocardial injury and its complications could emerge at any stage of covid-19 infection.

The guideline recommends testing levels of high sensitivity troponin and N-terminal pro B-type natriuretic peptide and using electrocardiography to identify patients with suspected myocardial injury. Patients should be monitored so that cardiac or respiratory deterioration can be rapidly identified, through continuous ECG monitoring and assessment of blood pressure, heart rate, and fluid balance.

Specialist cardiology advice should be sought when there is a clear diagnosis of myocardial injury, and high sensitivity troponin testing and ECG repeated daily in patients for whom suspicion persists. NICE said that elevated troponin levels might reflect a cardiac inflammatory response to severe illness rather than acute coronary syndrome and that some drugs being tested for covid-19 in clinical trials, such as azithromycin and hydroxychloroquine, might prolong the corrected QT interval and lead to arrhythmia.

The NICE rapid guideline on acute myocardial injury was published alongside another on the care of patients with gastrointestinal and liver conditions treated with drugs affecting the immune response.² This guideline says that patients who do not have covid-19 should continue taking drugs that affect the immune response to minimise the risk of a flare-up. Patients who develop covid-19 symptoms should contact their clinical team so that the risks and benefits of stopping or adjusting treatment can be discussed.

All non-essential monitoring, surveillance, and interventional procedures should be deferred, with endoscopy or liver biopsy only undertaken to inform urgent management decisions, the guideline says. Worsening gastrointestinal symptoms and deteriorating liver function test results could be associated with covid-19, it warns, and patients taking drugs that affect the immune response might have atypical presentations of covid-19—for example, patients taking corticosteroids might not develop a fever.

NICE is producing covid-19 rapid guidelines in collaboration with NHS England and NHS Improvement and a cross-specialty clinical group, supported by the specialist societies and royal colleges. Further guidelines in the series are likely to include the treatment of pneumonia in hospital, the management of acute kidney injury in patients with covid-19, and the care of children and young people who are immunosuppressed.

- 1 National Institute for Health and Care Excellence. Covid-19 rapid guideline: acute myocardial injury. NICE guideline [NG171]. 23 April 2020. <https://www.nice.org.uk/guidance/NG171>
- 2 National Institute for Health and Care Excellence. Covid-19 rapid guideline: gastrointestinal and liver conditions treated with drugs affecting the immune response. NICE guideline [NG172]. 23 April 2020. <https://www.nice.org.uk/guidance/NG172>

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