

# ACC: Pericardial effusion prevalent in hospitalized COVID-19 patients

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Pericardial effusion is prevalent among hospitalized patients with

COVID-19, but is rarely due to pericarditis, according to a study published online March 21 in the *Journal of the American Heart Association*, ahead of presentation at the annual meeting of the American College of Cardiology, held from April 2 to 4 in Washington, D.C.

Eihab Ghantous, M.D., M.P.H., from the Tel Aviv Sourasky Medical Center in Israel, and colleagues examined the prevalence, associations, and clinical impact of pericardial involvement in 530 hospitalized patients with COVID-19.

The researchers found that 75 patients (14 percent) had [pericardial effusion](#), but only 17 [patients](#) (3.2 percent) met the criteria for acute pericarditis. Independent associations were seen for pericardial effusion with modified early warning score, brain [natriuretic peptide](#), and right ventricular function. In nonadjusted analysis, pericardial effusion was associated with excess mortality (hazard ratio, 2.44; 95 percent confidence interval, 1.50 to 3.83;  $P = 0.0005$ ). After adjustment for modified early warning score and echocardiographic and hemodynamic parameters, there was a statistically nonsignificant association with mortality (hazard ratio, 1.86; 95 percent confidence interval, 0.95 to 3.5;  $P = 0.06$ ) and improvement in the model fit. Assessment of pericardial effusion combined with modified early warning score, left ventricular ejection fraction (LVEF), and tricuspid annular plane systolic excursion (TAPSE) independently predicted outcome (hazard ratio, 1.86; 95 percent confidence interval, 1.09 to 3.07;  $P = 0.02$ ) and improved model fit.

"To achieve significant clinical value for [risk stratification](#), a limited echocardiographic examination, including LVEF, TAPSE, and evaluation for presence of pericardial effusion, is sufficient," the authors write.

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