

# Patient deterioration and COVID-19: alert no.3

Evidence and Evaluation for Improvement Team  
(EEvIT)  
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This is the third of a planned series of quarterly alerts for new publications on the topic of patient deterioration and COVID-19. The citation and full-text links for these publications are listed below in the following themes: [general](#), [identification](#), and [management](#). This list contains literature published between March and June 2021.

## Deterioration (general)

BMJ Best Practice. Coronavirus disease 2019 (COVID-19). 2020 [cited 2021 Jun 11]; Available from: <https://bestpractice.bmj.com/topics/en-gb/3000201>

National Institute for Health and Care Excellence. COVID-19 rapid guideline: managing COVID-19 [online]. 2021 [cited 2021 Jun 11]; Available from: <https://www.nice.org.uk/guidance/ng191>

Royal College of Physicians. Talking about dying 2021: How to begin honest conversations about what lies ahead [online]. 2021 [cited 2021 Jun 11]; Available from: <https://www.rcplondon.ac.uk/projects/outputs/talking-about-dying-2021-how-begin-honest-conversations-about-what-lies-ahead>

## Identification

Cummings BC, Ansari S, Motyka JR, Wang G, Medlin Jr RP, Kronick SL, *et al.* [Predicting Intensive Care Transfers and Other Unforeseen Events: Analytic Model Validation Study and Comparison to Existing Methods](#). JMIR Med Inform. 2021;9(4):e25066.

Kim SH, Choi H, Lee H, Hong JY, Kim Y. [Predicting unexpected deterioration of high-risk hospitalized patients during the COVID-19 pandemic: A multicenter cohort study](#). Resuscitation. 2021;163:14-5.

Mauer E, Lee J, Choi J, Zhang H, Hoffman KL, Easthausen IJ, *et al.* [A predictive model of clinical deterioration among hospitalized COVID-19 patients by harnessing hospital course trajectories](#). J Biomed Inform. 2021;118:103794.

Polo Friz H, Gelfi E, Orenti A, Motto E, Primitz L, Donzelli T, *et al.* [Acute pulmonary embolism in patients presenting pulmonary deterioration after hospitalization for non-critical COVID-19](#). Intern Med J. 2021.

van Rensen IHT, Hensgens KRC, Lekx AW, van Osch FHM, Knarren LHH, van Kampen-van den Boogaart VEM, *et al.* [Early detection of hospitalized patients with COVID-19 at high risk of clinical deterioration: Utility of emergency department shock index](#). Am J Emerg Med. 2021;49:76-9.

Woo SH, Rios-Diaz AJ, Kubey AA, Cheney-Peters DR, Ackermann LL, Chalikonda DM, *et al.* [Development and Validation of a Web-Based Severe COVID-19 Risk Prediction Model](#). Am J Med Sci. 2021;S0002-9629(21)00112-9.

## Management

Crocker-Buque T, Williams S, Brentnall AR, Gabe R, Duffy S, Prowle JR, *et al.* [The Barts Health NHS Trust COVID-19 cohort: characteristics, outcomes and risk scoring of patients in East London](#). *Int J Tuberc Lung Dis*. 2021;25(5):358-66.

de Bruin S, Bos LD, van Roon MA, Tuip-de Boer AM, Schuurman AR, Koel-Simmelinck MJA, *et al.* [Clinical features and prognostic factors in Covid-19: A prospective cohort study](#). *EBioMedicine*. 2021;67.

Francis NA, Stuart B, Knight M, Vancheeswaran R, Oliver C, Willcox M, *et al.* [Predictors of clinical deterioration in patients with suspected COVID-19 managed in a 'virtual hospital' setting: a cohort study](#). *BMJ Open*. 2021;11(3):e045356.