

Safety of Enhanced Thromboprophylaxis Strategies for COVID-19 Patients



COVID-19 is associated with a high incidence of thrombotic complications. The burden of thrombotic complications, in particular, pulmonary embolism, remains high in patients with COVID-19, especially those requiring admission to the ICU. Data suggest an incidence of thromboembolic events between 27 to 57% in COVID-19 patients despite standard thromboprophylaxis. A review of studies including 1765 hospitalised patients reported the occurrence of venous thromboembolism in nearly 20% of patients and a cumulative prevalence of up to 49% during hospitalisation.

This study was conducted to describe the prevalence of enhanced thromboprophylaxis strategies in European ICUs and determine their association with mortality and safety in the ICU in critically ill COVID-19 patients.

The multi-centre study included 852 patients from 28 European ICUs. 79.5% of the patients were male. The most common comorbidities in the study population were hypertension and obesity. 32.2% of the patients received enhanced thromboprophylaxis. 27.7% received enhanced thromboprophylaxis with enoxaparin, while 4.5% of the patients received enhanced thromboprophylaxis with UFH. 51.1% of the patients received thromboprophylaxis as per standard protocols.

Results of the study show that enhanced thromboprophylaxis strategies were not associated with an increased incidence of haemorrhagic events and were associated with increased ICU survival. Based on this evidence, it is evident that therapeutic interventions should target the early stage of the process (i.e., inflammation modulation and inhibition of platelet activation) rather than the coagulation cascade.

Study findings support the use of enhanced thromboprophylaxis strategies. Preliminary studies also report a reduction in thromboembolic events for critically ill patients with COVID-19 with empirical enhanced thromboprophylaxis strategies compared to standard prophylaxis.

Since the burden of thromboembolic complications is high, the implementation of enhanced thromboprophylaxis strategies seems logical. Pulmonary embolism has been the direct cause of death in many patients with COVID-19. The use of enhanced thromboprophylaxis strategies may help reverse the process.

Source: [Critical Care](#)

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