

#### 418 Incidence of Venous Thromboembolism and Perioperative SARS-CoV-2 Infection: Multicentre Prospective International Cohort Study

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**Background:** SARS-CoV-2 has been associated with an increased rate of venous thromboembolism (VTE) in critically ill patients. Since surgical patients are already at higher risk of VTE than general populations, this study aimed to determine if patients with perioperative or previous SARS-CoV-2 were at further risk of VTE.

**Method:** International, multicentre, prospective cohort study of elective and emergency patients undergoing surgery during October 2020. Patient from all surgical specialties were included. The primary outcome measure was VTE (pulmonary embolism or deep vein thrombosis) within 30 days of surgery. SARS-CoV-2 diagnosis was defined as perioperative (7-days before to 30-days after surgery), recent (1–6 weeks before surgery), and previous ( $\geq 7$  weeks before surgery).

**Results:** The postoperative VTE rate was 0.5% (666/123,591) in patients without SARS-CoV-2 diagnosis, 2.2% (50/2,317) in patients with perioperative SARS-CoV-2, 1.6% (15/953) in patients with recent SARS-CoV-2, and 1.0% (11/1,148) in patients with previous SARS-CoV-2. After adjustment for confounding factors, patients with perioperative (adjusted odds ratio 1.48, 95% confidence interval 1.08–2.03) and recent SARS-CoV-2 (OR 1.94, 1.15–3.29) remained at higher risk of VTE, with a borderline finding in previous SARS-CoV-2 (OR 1.65, 0.90–3.02). Overall, VTE was independently associated with 30-day mortality (OR 5.39, 4.33–6.70). In SARS-CoV-2 infected patients, mortality without VTE was 7.4% (319/4,342) and with VTE was 40.8% (31/76).

**Conclusions:** Patients undergoing surgery with a perioperative or recent SARS-CoV-2 diagnosis are at increased risk of VTE compared to non-infected surgical patients.