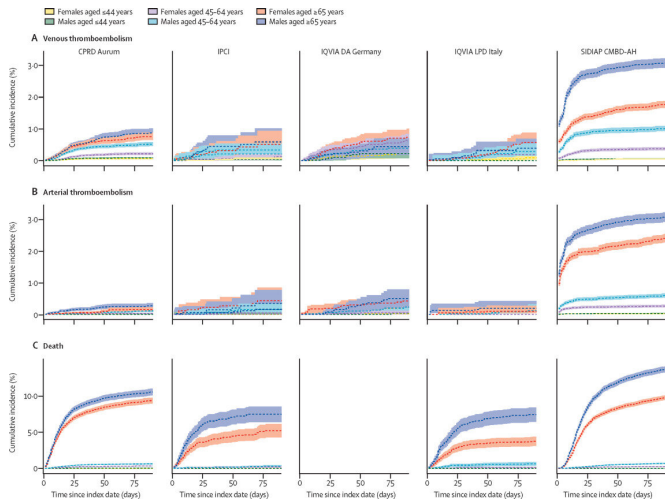


# COVID-19's high blood clot risk

16 May 2022



Cumulative incidence of venous thromboembolism, arterial thromboembolism, and death in COVID-19 cases. Data are stratified by age and sex. Estimates (solid lines) are presented with 95% CIs (dashed lines). Index date refers to the date of first COVID-19 diagnosis or positive RT-PCR test result. CPRD Aurum=Clinical Practice Research Datalink Aurum database. IPCI=Integrated Primary Care Information database. IQVIA DA Germany=IQVIA Disease Analyzer Germany database. IQVIA LPD Italy=IQVIA Longitudinal Patient Database Italy. SIDIAP CMBD-AH=Information System for Research in Primary Care Conjunto Mínimo de Datos Básicos al Alta Hospitalaria data. Credit: *The Lancet Infectious Diseases* (2022). DOI: 10.1016/S1473-3099(22)00223-7

A recent study of patient health records found that around 1 in 100 people with COVID-19 had a venal or arterial thrombosis, with rates higher still among males, and particularly for those hospitalized.

It has been previously estimated that the risk of venal thrombosis (VTE) among people hospitalized with COVID-19 is around 9% while the risk of an or arterial thrombosis (ATE) is 4%. However, little data exists for these events in patients who have not been admitted to hospital.

A new study published in *The Lancet Infectious*

*Diseases*, estimates the incidence of VTE and ATE among almost 1 million people with COVID-19, using routinely collected data from across Europe. The study found that for people with COVID-19, the risks ranged from 0.2% to 0.8% for VTE. For ATE it was from 0.1% to 0.8%.

Incidence of these events increased to 4.5% and 3.1% for those hospitalized with COVID-19. Meanwhile, 90-day mortality was between 1.1% and 2.0% among COVID-19 cases and increased to 14.6% for those hospitalized.

Results also showed that being male was generally associated with an increased risk of VTE, ATE, and death, as were various comorbidities and prior medications.

Dani Prieto-Alhambra, Professor of Pharmaco- and Device Epidemiology at NDORMS said: "While risks are somewhat low overall, given the vast numbers of people who have been infected with SARS-CoV-2, these relatively small risks translate into large numbers of people being affected. The consequences to health, including risk of [death](#), are significant, underlining the importance of effective treatment strategies in the management of severe COVID-19 to reduce their frequency. We need more research into potential strategies to minimize the risk of [thrombosis](#) amongst patients with non-hospitalized COVID-19, including possibly vaccines but also [blood thinners](#)."

"Our findings highlight the widespread ill-effects associated with COVID-19," commented Ed Burn, senior researcher at the University of Oxford. "The study was over a time period where few people had been fully vaccinated, and one of the many benefits of vaccines against COVID-19 will likely have been reducing the number of such events occurring in the future."

**More information:** Edward Burn et al, Venous or arterial thrombosis and deaths among COVID-19 cases: a European network cohort study, *The Lancet Infectious Diseases* (2022). DOI:

[10.1016/S1473-3099\(22\)00223-7](https://doi.org/10.1016/S1473-3099(22)00223-7)

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