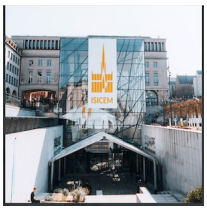
ICU
MANAGEMENT & PRACTICE

#ISICEM22: The Place of Antiplatelet Agents in COVID-19 (REMAP-CAP Trial)



Thrombotic events are common in patients hospitalised with COVID-19. Platelet activation has been implicated in the COVID-19 inflammatory response. However, the efficacy of antiplatelet therapy in critically ill patients with COVID-19 is still uncertain.

The Randomized, Embedded, Multifactorial Adaptive Platform Trial for Community-Acquired Pneumonia (REMAP-CAP) trial aimed to answer whether antiplatelet therapy administered to critically ill patients with COVID-19 improved outcomes and organ support-free days up to day 21. The trial included 1557 patients. Patients were randomised to receive antiplatelet therapy with either aspirin, P2Y12 inhibitor or no antiplatelet therapy. Interventions continued for a maximum of 14 days in the hospital in addition to anticoagulation thromboprophylaxis.

The primary endpoint of the study was organ support-free days within 21 days ranging from -1 for any death to 22 for survivors with no organ support. There were thirteen secondary outcomes, including survival to discharge and major bleeding for 14 days.

As per the findings of the study, the median number of organ support-free days was 7 in both the antiplatelet and control groups. The proportion of patients surviving to hospital discharge was 71.5% in the antiplatelet group and 67.9% in the control group. The median number of organ support-free days in survivors was 14 days in both groups. The estimated mortality rate at 90 days for the control group was 32.7% and for the antiplatelet group was 29.5%. Major bleeding occurred in 2.1% of the participants in the antiplatelet group and in 0.4% of the participants in the control group. Serious adverse events were reported in 0.9% of patients in the aspirin group, 0.9% in the P2Y12 inhibitor group and 0.6% in the control group.

Overall, these findings show that treatment with an antiplatelet agent in critically ill patients with COVID-19 compared with no antiplatelet therapy had a low likelihood of improving the number of organ support-free days within 21 days. However, there was a 97% probability that antiplatelet therapy improved survival to hospital discharge with an adjusted absolute reduction in mortality of 5% and a 99.7% probability that it improved survival over 90 days. However, the reduction in mortality was counterbalanced by an increase in the number of patients receiving short durations or organ support, resulting in a net effect on the outcome of organ support-free days.

Source: ISICEM 2022; JAMA
Image Credit: ISICEM 2022 Presentation; iStock

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