A Randomized Controlled Trial of Antithrombin Supplementation During Extracorporeal Membrane Oxygenation

Study design
Prospective, randomized controlled trial in Italy

Patients on VV-ECMO for respiratory failure requiring unfractionated heparin for anticoagulation (n = 48)

Intervention (n = 24)
Antithrombin concentrate (maintain AT levels 80 – 120%)

Control (n = 24)
No Antithrombin concentrate

Primary outcome
Heparin dose

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<tr>
<th>Antithrombin</th>
<th>No Antithrombin</th>
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<td>13.5 units/kg/hr</td>
<td>15.1 units/kg/hr</td>
<td>0.33</td>
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Secondary outcomes
No difference in bleeding, blood product transfusion or thrombosis between groups

Authors conclusion
Antithrombin did not ↓ heparin requirement nor diminish the incidence of bleeding and/or thrombosis in patients on venovenous ECMO