Table 1: Study characteristics of papers included in this review

<table>
<thead>
<tr>
<th>Author</th>
<th>Study design</th>
<th>Sample characteristics (size, mean age, location)</th>
<th>Primary outcome</th>
<th>Medication given</th>
<th>Results</th>
</tr>
</thead>
</table>
| Ayerbe et al.[1]| Retrospective cohort | N=2,075  
Age = 67.57±15.52  
Spain                       | Mortality (yes/no)                       | Heparin                       | Heparin reduced mortality rates in patients                             |
| Helms et al.[2] | Prospective cohort | N = 150  
Age = 68 ± 7  
France              | Thrombotic event (yes/no)                      | Heparin (LMWH or UFH)         | Patients with ARDS secondary to COVID-19 developed thrombotic complications regardless of anticoagulation. |
| Nadkarni et al.[3]| Retrospective cohort | N = 4,389  
Age = 65 ±12  
USA                       | Mortality  
Intubation Bleeding (yes/no)   | DOAC Heparin (LMWH or UFH)     | Therapeutic and Prophylactic AC reduced mortality and risk of intubation compared to no AC. |
| Bousquet et al.[4]| Prospective cohort | N=108  
Age = 78.4 ± 7.8  
France                                      | Mortality (yes/no)                       | Therapeutic AC (type not specified)           | Therapeutic AC reduced one-month mortality compared to no AC.            |
| Fauvel et al.[5]| Retrospective cohort | N = 1,240  
Age = 64 ± 17  
France                      | Pulmonary embolism (yes/no)                  | Heparin (LMWH or UFH)           | Therapeutic AC and prophylactic AC were associated with reduced PE        |
| Tang et al.[6]  | Retrospective cohort | N = 449  
Age = 65.1 ± 12.0  
China                     | Mortality (yes/no)                       | Heparin (LMWH or UFH)           | Therapeutic AC decreases 28-day mortality in severe cases                |
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Study Type</th>
<th>N (Age ±SD)</th>
<th>Outcomes</th>
<th>Pharmacotherapy</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gonzalez-Porras et al. [7]</td>
<td>Retrospective cohort</td>
<td>N = 690 (72.48 ±13.83 Spain)</td>
<td>Mortality (yes/no)</td>
<td>Heparin (LMWH)</td>
<td>High dose prophylactic LMWH reduced patient mortality by 2 folds compared to low dose and 6.2 folds compared to non-users.</td>
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<tr>
<td>Li et al. [8]</td>
<td>Retrospective cohort</td>
<td>N = 1,125 (58 ±15 China)</td>
<td>Thrombembolism Bleeding (yes/no)</td>
<td>Heparin (LMWH or UFH) NOAC Warfarin</td>
<td>Anticoagulants reduced mortality and thromboembolic events.</td>
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<tr>
<td>Russo et al. [9]</td>
<td>Retrospective cohort</td>
<td>N = 192 (67.2 ±15.2 Italy)</td>
<td>Mortality (yes/no)</td>
<td>Antiplatelet (Aspirin or P2y12 inhibitor) and anticoagulant (NOAC or VKA)</td>
<td>Antiplatelet and antithrombotic therapies don’t have a protective effect in severe COVID-19 patients suffering from ARDS.</td>
</tr>
<tr>
<td>Viecca et al. [10]</td>
<td>Case control (proof of concept)</td>
<td>N = 5 (61.8 ±15.4 Italy)</td>
<td>Hypoxemia and hypoxemia related outcomes (lower/higher)</td>
<td>Antiplatelets (Aspirin, tirofiban, clopidogrel) Prophylactic Anticoagulant (Fondaparinux, heparin)</td>
<td>Enhanced gaseous exchange and reduced blood coagulation.</td>
</tr>
<tr>
<td>Chow et al. [11]</td>
<td>Retrospective cohort</td>
<td>N=412 (Age=57 United States)</td>
<td>Mechanical ventilation, intensive care unit (ICU)</td>
<td>Aspirin use defined within 24 hrs of admission to hospital</td>
<td>Aspirin use was associated with a decreased risk of mechanical ventilation, ICU admission, and in-hospital mortality.</td>
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<tr>
<td>Pavoni et al.[12]</td>
<td>Retrospective cohort</td>
<td>N=42</td>
<td>64.3 ±12.1</td>
<td>Venous Thromboembolism, Bleeding (yes/no)</td>
<td>Heparin (LMWH) Antiplatelet (Aspirin)</td>
</tr>
</tbody>
</table>

Abbreviations: LMWH : Low molecular weight heparin; UFH: Unfractionated Heparin; DOAC: Direct oral anticoagulant, NOAC: Novel oral anticoagulant; VKA: Vitamin K antagonists; AC: anticoagulant; ARDS: acute respiratory distress syndrome.


