

**Supplementary Table S1. Baseline characteristics sorting patients by the type of DOAC**

|                                  | Overall<br>140   | Apixaban<br>103  | Dabigatran<br>8  | Edoxaban<br>9    | Rivaroxaban<br>20 | p     |
|----------------------------------|------------------|------------------|------------------|------------------|-------------------|-------|
| age (mean $\pm$ SD)              | 71.72<br>(15.33) | 73.57<br>(14.16) | 61.43<br>(16.02) | 80.83<br>(11.86) | 62.75<br>(17.73)  | 0.006 |
| Sex (male) (%)                   | 73 (52.1)        | 50 (48.5)        | 4 (50.0)         | 8 (88.9)         | 11 (55.0)         | 0.140 |
| BMI (mean $\pm$ SD)              | 27.45 (5.84)     | 27.11 (6.00)     | 30.45 (5.80)     | 27.34 (NA)       | 28.06 (5.16)      | NA    |
| smoking (%)                      |                  |                  |                  |                  |                   | 0.554 |
| No smoker (%)                    | 80 (70.8)        | 56 (66.7)        | 6 (85.7)         | 8 (100.0)        | 10 (71.4)         |       |
| Former smoker (%)                | 32 (28.3)        | 27 (32.1)        | 1 (14.3)         | 0 (0.0)          | 4 (28.6)          |       |
| Active smoker (%)                | 1 (0.9)          | 1 (1.2)          | 0                | 0 (0.0)          | 0                 |       |
| Active cancer (%)                | 18 (21.2)        | 15 (23.8)        | 0                | 3 (37.5)         | 0                 | 0.151 |
| Previous VTE (%)                 | 49 (35.5)        | 37 (36.3)        | 3 (37.5)         | 1 (11.1)         | 8 (42.1)          | 0.433 |
| VTE family history (%)           | 9 (7.4)          | 5 (5.6)          | 1 (16.7)         | 0                | 3 (17.6)          | 0.215 |
| Previous bleeding event (%)      | 5 (3.6)          | 2 (2.0)          | 1 (12.5)         | 1 (11.1)         | 1 (5.6)           | 0.239 |
| Site of VTE (%)                  |                  |                  |                  |                  |                   | 0.039 |
| PE                               | 43 (30.7)        | 32 (31.1)        | 4 (50.0)         | 3 (33.3)         | 4 (20.0)          |       |
| Cerebral vein thrombosis         | 1 (0.7)          | 0                | 1 (12.5)         | 0                | 0                 |       |
| Isolated jugular vein thrombosis | 4 (2.9)          | 3 (2.9)          | 0                | 0                | 1 (5.0)           |       |
| Ovaric vein thrombosis           | 1 (0.7)          | 0                | 0                | 0                | 1 (5.0)           |       |
| Retinal vein occlusion           | 1 (0.7)          | 1 (1.0)          | 0                | 0                | 0                 |       |
| SplVT                            | 2 (1.4)          | 2 (1.9)          | 0                | 0                | 0                 |       |
| LEDVT                            | 51 (36.4)        | 38 (36.9)        | 1 (12.5)         | 1 (11.1)         | 11 (55.0)         |       |
| LEDVT + PE                       | 27 (19.3)        | 19 (18.4)        | 1 (12.5)         | 4 (44.4)         | 3 (15.0)          |       |
| UEDVT                            | 5 (3.6)          | 4 (3.9)          | 1 (12.5)         | 0                | 0                 |       |
| UEDVT + PE                       | 2 (1.4)          | 2 (1.9)          | 0                | 0                | 0                 |       |
| Other sites thrombosis           | 3 (2.1)          | 2 (1.9)          | 0                | 1 (11.1)         | 0                 |       |
| Risk factor (%)                  |                  |                  |                  |                  |                   | 0.186 |
| Persistent RF                    | 72 (51.4)        | 55 (53.4)        | 5 (62.5)         | 3 (33.3)         | 9 (45.0)          |       |

|                       |            |           |          |          |            |       |
|-----------------------|------------|-----------|----------|----------|------------|-------|
| Transient RF          | 12 (8.6)   | 7 (6.8)   | 0        | 3 (33.3) | 2 (10.0)   |       |
| Unprovoked            | 56 (40.0)  | 41 (39.8) | 3 (37.5) | 3 (33.3) | 9 (45.0)   |       |
| Causes (%)            |            |           |          |          |            | 0.658 |
| autoimmune disease    | 13 (9.3)   | 9 (8.7)   | 1 (12.5) | 1 (11.1) | 2 (10.0)   |       |
| Active cancer         | 21 (15.0)  | 18 (17.5) | 1 (12.5) | 1 (11.1) | 1 (5.0)    |       |
| Liver cirrhosis       | 1 (0.7)    | 1 (1.0)   | 0        | 0        | 0          |       |
| Acute illness         | 6 (4.4)    | 3 (2.9)   | 0        | 2 (22.2) | 1 (5.0)    |       |
| Multiple RF           | 9 (6.4)    | 8 (7.8)   | 0        | 1 (11.1) | 0          |       |
| Surgery               | 4 (2.9)    | 2 (1.9)   | 0        | 1 (11.1) | 1 (5.0)    |       |
| Thrombophilia         | 30 (21.4)  | 21 (20.3) | 3 (37.5) | 0        | 6 (30.0)   |       |
| Leg injury            | 1 (0.7)    | 1 (1.0)   | 0        | 0        | 0          |       |
| Unprovoked            | 55 (39.3)  | 40 (38.8) | 3 (37.5) | 3 (33.3) | 9 (45.0)   |       |
| Concomitant therapies |            |           |          |          |            |       |
| antiplatelet (%)      | 6 (4.3)    | 3 (2.9)   | 1 (12.5) | 1 (11.1) | 1 (5.0)    |       |
| statin (%)            | 39 (27.9)  | 30 (29.1) | 4 (50.0) | 3 (33.3) | 2 (10.0)   | 0.418 |
| Corticosteroids (%)   | 19 (13.7)  | 14 (13.6) | 1 (12.5) | 0        | 4 (21.1)   | 0.148 |
| VTE recurrence (%)    | 1 (0.7)    | 1 (1.0)   | 0        | 0        | 0          | 0.510 |
| Arterial events (%)   | 4 (2.9)    | 3 (2.9)   | 1 (12.5) | 0        | 0          | 0.948 |
| Bleeding events (%)   |            |           |          |          |            | 0.316 |
| No bleeding event     | 132 (94.3) | 96 (93.2) | 8 (100)  | 8 (88.9) | 20 (100.0) |       |
| CRNMB                 | 2 (1.4)    | 2 (1.9)   | 0        | 0        | 0          | 0.461 |
| Major                 | 4 (2.9)    | 4 (3.9)   | 0        | 0        | 0          |       |
| minor                 | 2 (1.4)    | 1 (1.0)   | 0        | 1 (11.1) | 0          |       |

BMI: body mass index VTE: venous thromboembolism, PE: pulmonary embolism, LEDVT: lower extremity deep vein thrombosis, UEDVT upper extremity deep vein thrombosis, SplVT: splanchnic venous thrombosis, CVC: central venous catheter, CRNMB: clinically relevant non major bleeding, RF: risk factor