## Evaluation of antithrombotic use and COVID-19 outcomes in a nationwide atrial fibrillation cohort

## SUPPLEMENTARY MATERIAL

## SUPPLEMENTARY TABLES

Supplementary Table 1 - study population demographic characteristics for individuals with COVID-19 event by antithrombotic medication category
Percentages should be interpreted vertically for all variables e.g. proportion within category for variable, except for the first row showing percentage of individuals across AT medication categories.

|  | Total | Any AT | AC only | AP only | $A C$ and AP | No AT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Individuals | $\begin{aligned} & \hline 77364 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & \hline 67087 \\ & (86.7 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 54756 \\ (70.8 \%) \end{array}$ | $\begin{array}{\|l\|l\|} \hline 6743 \\ (8.7 \%) \\ \hline \end{array}$ | $\begin{aligned} & \hline 5588 \\ & (7.2 \%) \end{aligned}$ | $\begin{aligned} & 10277 \\ & (13.3 \%) \end{aligned}$ |
| Age (mean years, +/-sd) | $\begin{aligned} & \hline 81(+/- \\ & 10.1) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 81(+/- \\ & 9.8) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 81(+/- \\ & 9.7) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 82(+/- \\ & 10.6) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 79(+/- \\ & 9.7) \end{aligned}$ | $\begin{aligned} & 81(+/- \\ & 12) \\ & \hline \end{aligned}$ |
| 65-74 | $\begin{array}{\|l\|} \hline 12928 \\ (16.7 \%) \\ \hline \end{array}$ | $\begin{aligned} & \hline 11331 \\ & (16.9 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 9123 \\ (16.7 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 1014 \\ (15 \%) \end{array}$ | $\begin{aligned} & \hline 1194 \\ & (21.4 \%) \end{aligned}$ | $\begin{aligned} & 1597 \\ & (15.5 \%) \\ & \hline \end{aligned}$ |
| >=75 | $\begin{array}{\|l\|} \hline 59369 \\ (76.7 \%) \\ \hline \end{array}$ | $\begin{aligned} & \hline 51579 \\ & (76.9 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 42348 \\ & (77.3 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 5289 \\ (78.4 \%) \end{array}$ | $\begin{aligned} & \hline 3942 \\ & (70.5 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 7790 \\ & (75.8 \%) \\ & \hline \end{aligned}$ |
| Female | $\begin{aligned} & \hline 37227 \\ & (48.1 \%) \end{aligned}$ | $\begin{aligned} & 31498 \\ & (47 \%) \end{aligned}$ | $\begin{aligned} & 26569 \\ & (48.5 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 2992 \\ (44.4 \%) \end{array}$ | $\begin{aligned} & 1937 \\ & (34.7 \%) \end{aligned}$ | $\begin{aligned} & 5729 \\ & (55.7 \%) \end{aligned}$ |
| Ethnicity |  |  |  |  |  |  |
| White | $\begin{aligned} & 72745 \\ & (94 \%) \end{aligned}$ | $\begin{aligned} & \hline 63132 \\ & (94.1 \%) \end{aligned}$ | $\begin{aligned} & \text { 51899 } \\ & (94.8 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 6162 \\ (91.4 \%) \end{array}$ | $\begin{aligned} & 5071 \\ & (90.7 \%) \end{aligned}$ | $\begin{aligned} & 9613 \\ & (93.5 \%) \end{aligned}$ |
| Asian or Asian British | $\begin{aligned} & \hline 2666 \\ & (3.4 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 2311 \\ (3.4 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 1578 \\ (2.9 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 389 \\ (5.8 \%) \end{array}$ | $\begin{aligned} & \hline 344 \\ & (6.2 \%) \end{aligned}$ | $\begin{aligned} & \hline 355 \\ & (3.5 \%) \end{aligned}$ |
| Black or Black British | $\begin{aligned} & \hline 1010 \\ & (1.3 \%) \end{aligned}$ | $\begin{aligned} & 844 \\ & (1.3 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 645 \\ (1.2 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 118 \\ (1.7 \%) \end{array}$ | $\begin{aligned} & 81 \\ & (1.4 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 166 \\ (1.6 \%) \end{array}$ |
| Mixed | $\begin{aligned} & 281 \\ & (0.4 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 238 \\ (0.4 \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 187 \\ (0.3 \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 24 \\ (0.4 \%) \\ \hline \end{array}$ | $\begin{aligned} & \hline 27 \\ & (0.5 \%) \\ & \hline \end{aligned}$ | 43 (0.4\%) |
| Other Ethnic Groups | $\begin{aligned} & \hline 662 \\ & (0.9 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 562 \\ (0.8 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 447 \\ (0.8 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 50 \\ (0.7 \%) \end{array}$ | $\begin{aligned} & \hline 65 \\ & (1.2 \%) \end{aligned}$ | 100 (1\%) |
| Geographical locations |  |  |  |  |  |  |


| South East | 11387 | 9725 | 8012 | 913 | 800 | 1662 |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $(14.7 \%)$ | $(14.5 \%)$ | $(14.6 \%)$ | $(13.5 \%)$ | $(14.3 \%)$ | $(16.2 \%)$ |
| North West | 12691 | 11153 | 9024 | 1113 | 1016 | 1538 |
|  | $(16.4 \%)$ | $(16.6 \%)$ | $(16.5 \%)$ | $(16.5 \%)$ | $(18.2 \%)$ | $(15 \%)$ |
| East of England | 7095 | 6163 | 5047 | 591 | 525 | 932 |
|  | $(9.2 \%)$ | $(9.2 \%)$ | $(9.2 \%)$ | $(8.8 \%)$ | $(9.4 \%)$ | $(9.1 \%)$ |
| South West | 4185 | 3577 | 2911 | 367 | 299 | 608 |
|  | $(5.4 \%)$ | $(5.3 \%)$ | $(5.3 \%)$ | $(5.4 \%)$ | $(5.4 \%)$ | $(5.9 \%)$ |
| Yorkshire and The | 8809 | 7639 | 6230 | 878 | 531 | 1170 |
| Humber | $(11.4 \%)$ | $(11.4 \%)$ | $(11.4 \%)$ | $(13 \%)$ | $(9.5 \%)$ | $(11.4 \%)$ |
| West Midlands | 13273 | 11492 | 9423 | 1129 | 940 | 1781 |
|  | $(17.2 \%)$ | $(17.1 \%)$ | $(17.2 \%)$ | $(16.7 \%)$ | $(16.8 \%)$ | $(17.3 \%)$ |
| East Midlands | 7279 | 6439 | 5376 | 603 | 460 | 840 |
|  | $(9.4 \%)$ | $(9.6 \%)$ | $(9.8 \%)$ | $(8.9 \%)$ | $(8.2 \%)$ | $(8.2 \%)$ |
| London | 8806 | 7528 | 5929 | 802 | 797 | 1278 |
|  | $(11.4 \%)$ | $(11.2 \%)$ | $(10.8 \%)$ | $(11.9 \%)$ | $(14.3 \%)$ | $(12.4 \%)$ |
| North East | 3839 | 3371 | 2804 | 347 | 220 | 468 |
|  | $(5 \%)$ | $(5 \%)$ | $(5.1 \%)$ | $(5.1 \%)$ | $(3.9 \%)$ | $(4.6 \%)$ |
|  |  |  |  |  |  |  |
| IMD deciles | 7331 | 5843 | 832 | 656 | 1065 |  |
| 1 (most deprived) | 8396 | 730 | $(10.3$ |  |  |  |
|  | $(10.9 \%)$ | $(10.9 \%)$ | $(10.7 \%)$ | $(12.3 \%)$ | $(11.7 \%)$ | $(10.4 \%)$ |
| 10 (least deprived) | 6306 | 5449 | 4574 | 480 | 395 | 857 |
|  | $(8.2 \%)$ | $(8.1 \%)$ | $(8.4 \%)$ | $(7.1 \%)$ | $(7.1 \%)$ | $(8.3 \%)$ |

Supplementary Table 2 - study population comorbidities that increase stroke and bleeding risk for individuals with COVID-19 event by antithrombotic medication category
Percentages should be interpreted vertically for all variables e.g. proportion within category for variable

|  | Total | Any AT | AC only | AP only | AC and <br> AP | No AT |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| CHA2DS2-VASc score <br> components |  |  |  |  |  |  |
| Vascular disease | 169797 | 159892 | 103946 | 23815 | 32131 | 9905 |
|  | $(17.5 \%)$ | $(18.7 \%)$ | $(14.4 \%)$ | $(33.8 \%)$ | $(50.9 \%)$ | $(8.5 \%)$ |
| Stroke / TIA / | 196899 | 183140 | 150588 | 16611 | 15941 | 13759 |
| Thromboembolism | $(20.2 \%)$ | $(21.4 \%)$ | $(20.8 \%)$ | $(23.6 \%)$ | $(25.3 \%)$ | $(11.8 \%)$ |
| Congestive heart failure | 247562 | 228877 | 192023 | 15038 | 21816 | 18685 |
|  | $(25.4 \%)$ | $(26.7 \%)$ | $(26.6 \%)$ | $(21.3 \%)$ | $(34.6 \%)$ | $(16 \%)$ |


| Diabetes | $\begin{array}{\|l\|} \hline 268437 \\ (27.6 \%) \end{array}$ | $\begin{aligned} & \hline 242060 \\ & (28.3 \%) \end{aligned}$ | $\begin{aligned} & \hline 197216 \\ & (27.3 \%) \end{aligned}$ | $\begin{aligned} & 21602 \\ & (30.6 \%) \end{aligned}$ | $\begin{aligned} & \hline 23242 \\ & (36.8 \%) \end{aligned}$ | $\begin{aligned} & \hline 26377 \\ & (22.6 \%) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hypertension | $\begin{aligned} & 675680 \\ & (69.4 \%) \end{aligned}$ | $\begin{aligned} & 600627 \\ & (70.1 \%) \end{aligned}$ | $\begin{aligned} & 505516 \\ & (69.9 \%) \end{aligned}$ | $\begin{aligned} & 49680 \\ & (70.5 \%) \end{aligned}$ | $\begin{aligned} & 45431 \\ & (72 \%) \end{aligned}$ | $\begin{aligned} & 75053 \\ & (64.3 \%) \end{aligned}$ |
| CHA2DS2-VASc score (mean, +/- sd) | $\begin{array}{\|l} \hline 3.9(+/- \\ 1.4) \\ \hline \end{array}$ | $\begin{aligned} & \hline 4(+/- \\ & 1.4) \\ & \hline \end{aligned}$ | $\begin{aligned} & 3.9(+/- \\ & 1.4) \\ & \hline \end{aligned}$ | $\begin{aligned} & 4.1(+/- \\ & 1.5) \\ & \hline \end{aligned}$ | $\begin{aligned} & 4.4(+/- \\ & 1.5) \\ & \hline \end{aligned}$ | $\begin{aligned} & 3.4(+/- \\ & 1.3) \\ & \hline \end{aligned}$ |
| 2 | $\begin{array}{\|l\|} \hline 172174 \\ (17.7 \%) \end{array}$ | $\begin{aligned} & \hline 138751 \\ & (16.2 \%) \end{aligned}$ | $\begin{aligned} & \hline 120968 \\ & (16.7 \%) \end{aligned}$ | $\begin{array}{l\|} \hline 10914 \\ (15.5 \%) \end{array}$ | $\begin{aligned} & \hline 6869 \\ & (10.9 \%) \end{aligned}$ | $\begin{aligned} & 33423 \\ & (28.7 \%) \end{aligned}$ |
| 3 | $\begin{array}{\|l} \hline 245977 \\ (25.3 \%) \\ \hline \end{array}$ | $\begin{aligned} & 213057 \\ & (24.9 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & 184242 \\ & (25.5 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 16290 \\ (23.1 \%) \\ \hline \end{array}$ | $\begin{aligned} & \hline 12525 \\ & (19.8 \%) \end{aligned}$ | $\begin{aligned} & 32920 \\ & (28.2 \%) \end{aligned}$ |
| 4 | $\begin{array}{\|l\|} \hline 252051 \\ (25.9 \%) \\ \hline \end{array}$ | $\begin{aligned} & \hline 224259 \\ & (26.2 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 190710 \\ & (26.4 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 17874 \\ (25.4 \%) \\ \hline \end{array}$ | $\begin{aligned} & \hline 15675 \\ & (24.8 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 27792 \\ & (23.8 \%) \end{aligned}$ |
| 5 | $\begin{array}{\|l\|l\|} \hline 162315 \\ (16.7 \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|l\|} \hline 149102 \\ (17.4 \%) \\ \hline \end{array}$ | $\begin{aligned} & 122353 \\ & (16.9 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 12996 \\ (18.4 \%) \\ \hline \end{array}$ | $\begin{aligned} & \hline 13753 \\ & (21.8 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & 13213 \\ & (11.3 \%) \\ & \hline \end{aligned}$ |
| >=6 | $\begin{aligned} & \hline 140457 \\ & (14.4 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 131171 \\ & (15.3 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & 104466 \\ & (14.5 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 12426 \\ (17.6 \%) \\ \hline \end{array}$ | $\begin{aligned} & \hline 14279 \\ & (22.6 \%) \end{aligned}$ | $\begin{aligned} & 9286 \\ & (8 \%) \\ & \hline \end{aligned}$ |
| HAS-BLED score components |  |  |  |  |  |  |
| Renal disease | $\begin{aligned} & 315940 \\ & (32.5 \%) \end{aligned}$ | $\begin{aligned} & 284379 \\ & (33.2 \%) \end{aligned}$ | $\begin{aligned} & 237965 \\ & (32.9 \%) \end{aligned}$ | $\begin{aligned} & 24423 \\ & (34.6 \%) \end{aligned}$ | $\begin{aligned} & 21991 \\ & (34.9 \%) \end{aligned}$ | $\begin{aligned} & 31561 \\ & (27.1 \%) \end{aligned}$ |
| Liver disease | $\begin{array}{\|l\|} \hline 8462 \\ (0.9 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 6707 \\ (0.8 \%) \end{array}$ | $\begin{aligned} & \hline 5440 \\ & (0.8 \%) \end{aligned}$ | $\begin{aligned} & \hline 788 \\ & (1.1 \%) \end{aligned}$ | $\begin{aligned} & \hline 479 \\ & (0.8 \%) \end{aligned}$ | $\begin{aligned} & \hline 1755 \\ & (1.5 \%) \end{aligned}$ |
| Stroke | $\begin{aligned} & 196493 \\ & (20.2 \%) \end{aligned}$ | $\begin{aligned} & 182756 \\ & (21.3 \%) \end{aligned}$ | $\begin{aligned} & 150232 \\ & (20.8 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 16606 \\ (23.6 \%) \\ \hline \end{array}$ | $\begin{aligned} & 15918 \\ & (25.2 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & 13737 \\ & (11.8 \%) \\ & \hline \end{aligned}$ |
| Major bleeding event | $\begin{aligned} & 335289 \\ & (34.5 \%) \end{aligned}$ | $\begin{aligned} & 293096 \\ & (34.2 \%) \end{aligned}$ | $\begin{aligned} & 240703 \\ & (33.3 \%) \end{aligned}$ | $\begin{aligned} & 27431 \\ & (38.9 \%) \end{aligned}$ | $\begin{aligned} & 24962 \\ & (39.6 \%) \end{aligned}$ | $\begin{aligned} & 42193 \\ & (36.2 \%) \end{aligned}$ |
| Harmful alcohol use | $\begin{aligned} & 28969 \\ & (3 \%) \end{aligned}$ | $\begin{aligned} & 25571 \\ & (3 \%) \end{aligned}$ | $\begin{aligned} & 21161 \\ & (2.9 \%) \end{aligned}$ | $\begin{aligned} & \hline 2274 \\ & (3.2 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 2136 \\ (3.4 \%) \\ \hline \end{array}$ | $\begin{aligned} & \hline 3398 \\ & (2.9 \%) \end{aligned}$ |
| Uncontrolled hypertension | $\begin{array}{\|l\|} \hline 66576 \\ (6.8 \%) \\ \hline \end{array}$ | $\begin{aligned} & 58873 \\ & \text { (6.9\%) } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 48444 \\ & (6.7 \%) \end{aligned}$ | $\begin{aligned} & 5395 \\ & (7.7 \%) \end{aligned}$ | $\begin{aligned} & 5034 \\ & (8 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & 7703 \\ & (6.6 \%) \end{aligned}$ |
| History of fall | $\begin{array}{\|l\|} \hline 119738 \\ (12.3 \%) \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 103615 \\ (12.1 \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 85718 \\ \text { (11.9\%) } \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 10717 \\ (15.2 \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 7180 \\ (11.4 \%) \\ \hline \end{array}$ | $\begin{aligned} & \hline 16123 \\ & (13.8 \%) \\ & \hline \end{aligned}$ |
| BMI (mean, +/-sd) | $28.7 \text { (+/- }$ <br> 6) | $\begin{aligned} & 28.8(+/- \\ & 6) \\ & \hline \end{aligned}$ | $\begin{aligned} & 28.8(+/- \\ & 6.1) \\ & \hline \end{aligned}$ | $\begin{aligned} & 28.1(+/- \\ & 5.6) \\ & \hline \end{aligned}$ | $\begin{aligned} & 29(+/- \\ & 5.8) \end{aligned}$ | $\begin{aligned} & 27.9(+/- \\ & 5.9) \end{aligned}$ |
| Smoking status (ever smoker) | $\begin{aligned} & \hline 638774 \\ & (65.7 \%) \end{aligned}$ | $\begin{aligned} & 566861 \\ & (66.2 \%) \end{aligned}$ | $\begin{aligned} & 472208 \\ & (65.3 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 48568 \\ (68.9 \%) \end{array}$ | $\begin{aligned} & 46085 \\ & (73 \%) \end{aligned}$ | $\begin{aligned} & \hline 71913 \\ & \text { (61.7\%) } \end{aligned}$ |

Supplementary Table 3 - study population characteristics for COVID-19 outcomes and other medications for individuals with COVID-19 event by antithrombotic medication category
Percentages should be interpreted vertically for all variables e.g. proportion within category for variable

|  | Total | Any AT | AC only | AP only | AC and <br> AP | No AT |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- |
| COVID-19 outcomes |  |  |  |  |  |  |
| COVID-19 event | 77364 | 67087 | 54756 | 6743 | 5588 | 10277 |
|  | $(8 \%)$ | $(7.8 \%)$ | $(7.6 \%)$ | $(9.6 \%)$ | $(8.9 \%)$ | $(8.8 \%)$ |
| COVID-19 | 37418 | 33150 | 26887 | 3201 | 3062 | 4268 |
| hospitalisation | $(3.8 \%)$ | $(3.9 \%)$ | $(3.7 \%)$ | $(4.5 \%)$ | $(4.9 \%)$ | $(3.7 \%)$ |
| COVID-19 | 27011 | 23919 | 19375 | 2319 | 2225 | 3092 |
| hospitalisation (primary | $(2.8 \%)$ | $(2.8 \%)$ | $(2.7 \%)$ | $(3.3 \%)$ | $(3.5 \%)$ | $(2.7 \%)$ |
| diagnosis) |  |  |  |  |  |  |
| COVID-19 death | 21116 | 18173 | 14553 | 2055 | 1565 | 2943 |
|  | $(2.2 \%)$ | $(2.1 \%)$ | $(2 \%)$ | $(2.9 \%)$ | $(2.5 \%)$ | $(2.5 \%)$ |
| COVID-19 death | 15297 | 13158 | 10522 | 1508 | 1128 | 2139 |
| (primary diagnosis) | $(1.6 \%)$ | $(1.5 \%)$ | $(1.5 \%)$ | $(2.1 \%)$ | $(1.8 \%)$ | $(1.8 \%)$ |
| Other medications |  |  |  |  |  |  |
| Antihypertensives | 540681 | 498116 | 412078 | 40377 | 45661 | 42565 |
|  | $(55.6 \%)$ | $(58.2 \%)$ | $(57 \%)$ | $(57.3 \%)$ | $(72.4 \%)$ | $(36.5 \%)$ |
| Lipid regulating drugs | 589570 | 547522 | 441737 | 5120 | 54665 | 42048 |
|  | $(60.6 \%)$ | $(63.9 \%)$ | $(61.1 \%)$ | $(72.5 \%)$ | $(86.6 \%)$ | $(36.1 \%)$ |
| Proton pump inhibitors | 409430 | 369462 | 286984 | 39181 | 43297 | 39968 |
|  | $(42.1 \%)$ | $(43.1 \%)$ | $(39.7 \%)$ | $(55.6 \%)$ | $(68.6 \%)$ | $(34.3 \%)$ |
| NSAIDS | 19448 | 14608 | 11101 | 2317 | 1190 | 4840 |
|  | $(2 \%)$ | $(1.7 \%)$ | $(1.5 \%)$ | $(3.3 \%)$ | $(1.9 \%)$ | $(4.1 \%)$ |
| Corticosteroids | 80347 | 71706 | 59511 | 5929 | 6266 | 8641 |
|  | $(8.3 \%)$ | $(8.4 \%)$ | $(8.2 \%)$ | $(8.4 \%)$ | $(9.9 \%)$ | $(7.4 \%)$ |
| Other | 13216 | 11690 | 9498 | 1152 | 1040 | 1526 |
| $(1.3 \%)$ | $(1.3 \%)$ | $(1.6 \%)$ | $(1.6 \%)$ | $(1.3 \%)$ |  |  |
| immunosuppressants | $(1.4 \%)$ | $(1.4 \%)$ | 629 | $825(1 \%)$ | 1215 |  |
| COVID-19 vaccine prior | 9463 | 8248 | 6799 | 824 | $(1 \%)$ |  |
| to COVID-19 event | $(1 \%)$ | $(1 \%)$ | $(0.9 \%)$ | $(1.2 \%)$ |  |  |

## SUPPLEMENTARY FIGURES



Supplementary Figure 1: Study flowchart showing the number of individuals excluded at each step and the study population sizes for each question


Supplementary Figure 2: Individual antithrombotic prescriptions by drug January 2020 - May 2021
Ordered by proportion of prescriptions with non-mutually exclusive categories e.g. an individual may have prescriptions for multiple drugs (warfarin and aspirin). Excludes drugs with $<1 \%$ of prescriptions (ticagrelor, dipyridamole, prasugrel).


Reference categories, 1) White 2) IMD decile 10 (least deprived) 3) South East

## Supplementary Figure 3: Factors associated with AC vs AP (January 1st 2020) using multivariable logistic regression



Reference categories , 1) White 2) IMD decile 10 (least deprived) 3) South East

## Supplementary Figure 4: Factors associated with DOACs vs warfarin (January $1^{\text {st }} 2020$ ) using multivariable logistic regression



Supplementary Figure 5: Comparison of dabigatran versus factor Xa inhibitors on COVID-19 outcomes (follow up to May $1^{\text {st }} 2021$ ) using propensity score adjusted multivariable logistic regression


Supplementary Figure 6: Comparison of AT medication exposures on COVID19 outcomes (follow up to May $1^{\text {st }} 2021$ ) using Cox regression


Supplementary Figure 7: Comparison of AT medication exposures on COVID19 outcomes (follow up to December $1^{\text {st }} 2020$ ) using propensity score adjusted multivariable logistic regression


Supplementary Figure 8: Comparison of AT medication exposures on COVID19 hospitalisation and death defined exclusively as the primary recorded diagnosis (follow up to May 1st 2021) using propensity score adjusted multivariable logistic regression

