**Supplemental Table 1. Codes for Identifying Major Bleeding Events**

| **Category** | **ICD-9 Codes** | **ICD-10 Codes** |
| --- | --- | --- |
| **Major Bleeding -Gastrointestinal** | **ICD-9-CM Codes:** 456.0x, 456.20, 530.82, 531.0x, 531.2x, 531.4x, 531.6x, 532.0x, 532.2x, 532.4x, 532.6x, 533.0x, 533.2x, 533.4x, 533.6x, 534.0x, 534.2x, 534.4x, 534.6x, 535.01, 535.11, 535.21, 535.31, 535.41, 535.51, 535.61, 537.83, 562.02, 562.03, 562.12, 562.13, 568.81, 569.3, 569.85, 578.x | **ICD-10-CM Codes:** I8501, I8511, K2211, K226, K250, K252, K254, K256, K260, K262, K264, K266, K270, K272, K274, K276, K280, K282, K284, K286, K2901, K2921, K2931, K2941, K2951, K2961, K2971, K2981, K2991, K31811, K3182, K5521, K5701, K5711, K5713, K5721, K5731, K5733, K5741, K5751, K5753, K5781, K5791, K5793, K625, K6381, K661, K920, K921, K922, K9161, K9162, K91840, K91841 |
| **ICD-9-PCS Codes**: 44.43 | **ICD-10-PCS Codes**: no codes |
| **Major Bleeding -Intracranial** | 430.xx, 431.xx, 432.xx, 852.0x, 852.2x, 852.4x, 853.0x | I6000, I6001, I6002, I6010, I6011, I6012, I602, I6030, I6031, I6032, I604, I6050, I6051, I6052, I606, I607, I608, I609, I610, I611, I612, I613, I614, I615, I616, I618, I619, I6200, I6201, I6202, I6203, I621, I629, S06340A, S06341A, S06342A, S06343A, S06344A, S06345A, S06346A, S06347A, S06348A, S06349A, S06350A, S06351A, S06352A, S06353A, S06354A, S06355A, S06356A, S06357A, S06358A, S06359A, S06360A, S06361A, S06362A, S06363A, S06364A, S06365A, S06366A, S06367A, S06368A, S06369A, S064X0A, S064X1A, S064X2A, S064X3A, S064X4A, S064X5A, S064X6A, S064X7A, S064X8A, S064X9A, S065X0A, S065X1A, S065X2A, S065X3A, S065X4A, S065X5A, S065X6A, S065X7A, S065X8A, S065X9A, S066X0A, S066X1A, S066X2A, S066X3A, S066X4A, S066X5A, S066X6A, S066X7A, S066X8A, S066X9A |
| **Major Bleeding -Other** | **ICD-9-Diagnosis:** 285.1, 360.43, 362.43, 362.81, 363.61, 363.62, 363.72, 364.41, 372.72, 374.81, 376.32, 377.42, 379.23, 423.0x, 596.7x, 599.7x, 602.1x, 620.1, 621.4, 626.2, 626.5, 626.7, 626.8, 626.9, 719.1x, 782.7, 784.7, 784.8, 786.3x, 958.2, 997.02, 998.11 | **ICD-10 CM Codes:** D62, D7801, D7802, D7821, D7822, E3601, E3602, E89810, E89811, G9731, G9732, G9751, G9752, H05231, H05232, H05233, H05239, H1130, H1131, H1132, H1133, H2100, H2101, H2102, H2103, H31301, H31302, H31303, H31309, H31311, H31312, H31313, H31319, H31411, H31412, H31413, H31419, H3560, H3561, H3562, H3563, H35731, H35732, H35733, H35739, H4310, H4311, H4312, H4313, H44811, H44812, H44813, H44819, H47021, H47022, H47023, H47029, H59111, H59112, H59113, H59119, H59121, H59122, H59123, H59129, H59311, H59312, H59313, H59319, H59321, H59322, H59323, H59329, H9521, H9522, H9541, H9542, I312, I97410, I97411, I97418, I9742, I97610, I97611, I97618, I97620, J9561, J9562, J95830, J95831, L7601, L7602, L7621, L7622, M2500, M25011, M25012, M25019, M25021, M25022, M25029, M25031, M25032, M25039, M25041, M25042, M25049, M25051, M25052, M25059, M25061, M25062, M25069, M25071, M25072, M25073, M25074, M25075, M25076, M2508, M96810, M96811, M96830, M96831, N421, N857, N897, N920, N923, N930, N938, N939, N9961, N9962, N99820, N99821, R040, R041, R042, R0489, R049, R233, R310, R319, R58, T792XXA |
| **ICD-9 procedure:** 99.04 | **ICD-10 PCS Codes:** 30230N1, 30230P1, 30233N1, 30233P1, 30240N1, 30240P1, 30243N1, 30243P1, 30250N1, 30250P1, 30253N1, 30253P1, 30260N1, 30260P1, 30263N1, 30263P1 |
| **CLINICALLY RELEVANT NON-MAJOR (CRNM) BLEEDING-Gastrointestinal** | **ICD-9-CM Codes:** 456.0x, 456.20, 530.82, 531.0x, 531.2x, 531.4x, 531.6x, 532.0x, 532.2x, 532.4x, 532.6x, 533.0x, 533.2x, 533.4x, 533.6x, 534.0x, 534.2x, 534.4x, 534.6x, 535.01, 535.11, 535.21, 535.31, 535.41, 535.51, 535.61, 537.83, 562.02, 562.03, 562.12, 562.13, 569.3, 569.85, 578.x | **ICD-10-CM Codes:** I8501, I8511, K2211, K226, K250, K252, K254, K256, K260, K262, K264, K266, K270, K272, K274, K276, K280, K282, K284, K286, K2901, K2921, K2931, K2941, K2951, K2961, K2971, K2981, K2991, K31811, K3182, K5521, K5701, K5711, K5713, K5721, K5731, K5733, K5741, K5751, K5753, K5781, K5791, K5793, K625, K6381, K920, K921, K922, K9161, K9162, K91840, K91841 |
| **ICD-9-PCS Codes**: 44.43 | **ICD-10-PCS Codes**: no codes |
| **CRNM-Other** | **ICD-9-Diagnosis:** 285.1, 372.72, 374.81, 596.7x, 599.7x, 602.1x, 620.1, 621.4, 626.2, 626.5, 626.7, 626.8, 626.9, 782.7, 784.7, 784.8, 786.3x, 958.2 | **ICD-10 CM Codes:** D62, E89810, E89811, H0289, H1130, H1131, H1132, H1133, J9561, J9562, J95830, J95831, L7601, L7602, L7621, L7622, M96810, M96811, M96830, M96831, N421, N857, N897, N920, N923, N930, N938, N939, N9961, N9962, N99820, N99821, R040, R041, R042, R0489, R049, R233, R310, R319, R58, T792XXA |
| **ICD-9 procedure:** 99.04 | **ICD-10 PCS Codes:** 30230N1, 30230P1, 30233N1, 30233P1, 30240N1, 30240P1, 30243N1, 30243P1, 30250N1, 30250P1, 30253N1, 30253P1, 30260N1, 30260P1, 30263N1, 30263P1 |

**Supplemental Table 2. Complete Baseline Characteristics for Pre-and Post-matched Apixaban and Warfarin Patients**

|  | **Pre-Matched** | | | | | | **Post-Matched** | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Warfarin Cohort** | | **Apixaban Cohort (Reference)** | | | | **Warfarin Cohort** | | **Apixaban Cohort (Reference)** | | | |
| **N/**  **Mean** | **%/**  **SD** | **N/**  **Mean** | **%/**  **SD** | **P-**  **value** | **STD\*\*** | **N/**  **Mean** | **%/**  **SD** | **N/**  **Mean** | **%/SD** | **P-value** | **STD\*\*** |
| **Sample Size** | **25,284** |  | **12,515** |  |  |  | **11,363** |  | **11,363** |  |  |  |
| **Age\* (years)** | 77.54 | 8.11 | 77.67 | 8.10 | 0.145 | 1.59 | 77.61 | 8.06 | 77.64 | 8.10 | 0.717 | 0.48 |
| **65-74** | 10,621 | 42.0% | 5,137 | 41.0% | 0.075 | 1.95 | 4,730 | 41.6% | 4,710 | 41.5% | 0.788 | 0.36 |
| **75-79** | 4,921 | 19.5% | 2,513 | 20.1% | 0.156 | 1.55 | 2,219 | 19.5% | 2,234 | 19.7% | 0.802 | 0.33 |
| **≥80** | 9,742 | 38.5% | 4,865 | 38.9% | 0.519 | 0.70 | 4,414 | 38.8% | 4,419 | 38.9% | 0.946 | 0.09 |
| **Sex\*** | | | | | | | | | | | | |
| **Male** | 9,192 | 36.4% | 4,726 | 37.8% | 0.008 | 2.91 | 4,196 | 36.9% | 4,262 | 37.5% | 0.365 | 1.20 |
| **Female** | 16,092 | 63.6% | 7,789 | 62.2% | 0.008 | 2.91 | 7,167 | 63.1% | 7,101 | 62.5% | 0.365 | 1.20 |
| **Race/Ethnicity\*** | | | | | | | | | | | | |
| **White** | 20,236 | 80.0% | 10,268 | 82.0% | <.0001 | 5.13 | 9,310 | 81.9% | 9,292 | 81.8% | 0.757 | 0.41 |
| **African American** | 3,146 | 12.4% | 1,419 | 11.3% | 0.002 | 3.41 | 1,299 | 11.4% | 1,306 | 11.5% | 0.884 | 0.19 |
| **Hispanic** | 1,200 | 4.7% | 528 | 4.2% | 0.021 | 2.55 | 491 | 4.3% | 486 | 4.3% | 0.870 | 0.22 |
| **Other** | 702 | 2.8% | 300 | 2.4% | 0.031 | 2.39 | 263 | 2.3% | 279 | 2.5% | 0.487 | 0.92 |
| **Geographic Region\*** | | | | | | | | | | | | |
| **Northeast** | 4,801 | 19.0% | 2,249 | 18.0% | 0.017 | 2.62 | 2,065 | 18.2% | 2,093 | 18.4% | 0.631 | 0.64 |
| **North Central** | 7,617 | 30.1% | 2,885 | 23.1% | <.0001 | 16.06 | 2,833 | 24.9% | 2,806 | 24.7% | 0.678 | 0.55 |
| **South** | 8,364 | 33.1% | 5,654 | 45.2% | <.0001 | 24.98 | 4,719 | 41.5% | 4,788 | 42.1% | 0.354 | 1.23 |
| **West** | 4,441 | 17.6% | 1,713 | 13.7% | <.0001 | 10.69 | 1,729 | 15.2% | 1,662 | 14.6% | 0.212 | 1.65 |
| **Other** | 61 | 0.2% | 14 | 0.1% | 0.008 | 3.08 | 17 | 0.1% | 14 | 0.1% | 0.590 | 0.72 |
| **Medicare/Medicaid Dual-eligibility\*** | 7,396 | 29.3% | 3,289 | 26.3% | <.0001 | 6.64 | 3,019 | 26.6% | 3,036 | 26.7% | 0.799 | 0.34 |
| **Part D Low-income Subsidy\*** | 8,101 | 32.0% | 3,672 | 29.3% | <.0001 | 5.85 | 3,357 | 29.5% | 3,373 | 29.7% | 0.816 | 0.31 |
| **Type of Index Encounter\*** | | | | | | | | | | | | |
| **Inpatient** | 19,778 | 78.2% | 7,148 | 57.1% | <.0001 | 46.32 | 7,100 | 62.5% | 7,094 | 62.4% | 0.935 | 0.11 |
| **Ambulatory** | 5,506 | 21.8% | 5,367 | 42.9% | <.0001 | 46.32 | 4,263 | 37.5% | 4,269 | 37.6% | 0.935 | 0.11 |
| **Position of VTE Diagnosis\*** | | | | | | | | | | | | |
| **DVT only** | 12,867 | 50.9% | 6,977 | 55.7% | <.0001 | 9.75 | 6,162 | 54.2% | 6,138 | 54.0% | 0.749 | 0.42 |
| **PE with DVT** | 4,269 | 16.9% | 1,842 | 14.7% | <.0001 | 5.94 | 1,783 | 15.7% | 1,772 | 15.6% | 0.841 | 0.27 |
| **PE without DVT** | 8,148 | 32.2% | 3,696 | 29.5% | <.0001 | 5.83 | 3,418 | 30.1% | 3,453 | 30.4% | 0.613 | 0.67 |
| **VTE Etiology\*** | | | | | | | | | | | | |
| **Provoked** | 9,079 | 35.9% | 3,951 | 31.6% | <.0001 | 9.18 | 3,651 | 32.1% | 3,680 | 32.4% | 0.681 | 0.55 |
| **Unprovoked** | 16,205 | 54.1% | 4,655 | 68.4% | <.0001 | 9.18 | 7,712 | 67.9% | 7,683 | 67.6% | 0.681 | 0.55 |
| **Baseline Comorbidity\*** | | | | | | | | | | | | |
| **Deyo-Charlson comorbidity index score** | 2.99 | 2.55 | 2.90 | 2.52 | 0.002 | 3.47 | 2.92 | 2.56 | 2.93 | 2.53 | 0.831 | 0.28 |
| **AIDS** | 86 | 0.3% | 25 | 0.2% | 0.018 | 2.71 | 24 | 0.2% | 25 | 0.2% | 0.886 | 0.19 |
| **Alcohol abuse** | 680 | 2.7% | 255 | 2.0% | 0.000 | 4.29 | 237 | 2.1% | 243 | 2.1% | 0.782 | 0.37 |
| **Anemia** | 10,669 | 42.2% | 4,540 | 36.3% | <.0001 | 12.15 | 4,219 | 37.1% | 4,265 | 37.5% | 0.528 | 0.84 |
| **Central venous catheter** | 2,539 | 10.0% | 799 | 6.4% | <.0001 | 13.35 | 756 | 6.7% | 789 | 6.9% | 0.385 | 1.15 |
| **Cerebrovascular disease** | 5,101 | 20.2% | 2,267 | 18.1% | <.0001 | 5.24 | 2,092 | 18.4% | 2,099 | 18.5% | 0.905 | 0.16 |
| **Coagulopathy** | 1,143 | 4.5% | 284 | 2.3% | <.0001 | 12.46 | 318 | 2.8% | 280 | 2.5% | 0.115 | 2.09 |
| **Ischemic heart/ coronary artery disease** | 9,552 | 37.8% | 4,605 | 36.8% | 0.063 | 2.03 | 4,177 | 36.8% | 4,223 | 37.2% | 0.527 | 0.84 |
| **Dementia** | 3,042 | 12.0% | 1,585 | 12.7% | 0.077 | 1.93 | 1,421 | 12.5% | 1,413 | 12.4% | 0.872 | 0.21 |
| **Dyspepsia or stomach discomfort** | 6,662 | 26.3% | 2,994 | 23.9% | <.0001 | 5.59 | 2,760 | 24.3% | 2,761 | 24.3% | 0.988 | 0.02 |
| **Hemiplegia or paraplegia** | 726 | 2.9% | 290 | 2.3% | 0.002 | 3.49 | 281 | 2.5% | 283 | 2.5% | 0.932 | 0.11 |
| **Hyperlipidemia** | 16,019 | 63.4% | 7,928 | 63.3% | 0.987 | 0.02 | 7,184 | 63.2% | 7,179 | 63.2% | 0.945 | 0.09 |
| **Pneumonia** | 4,823 | 19.1% | 1,984 | 15.9% | <.0001 | 8.49 | 1,892 | 16.7% | 1,894 | 16.7% | 0.972 | 0.05 |
| **Rheumatologic disease** | 1,874 | 7.4% | 836 | 6.7% | 0.009 | 2.86 | 795 | 7.0% | 779 | 6.9% | 0.676 | 0.55 |
| **Sleep apnea** | 3,567 | 14.1% | 1,720 | 13.7% | 0.337 | 1.05 | 1,564 | 13.8% | 1,561 | 13.7% | 0.954 | 0.08 |
| **Spinal cord injury** | 68 | 0.3% | 32 | 0.3% | 0.813 | 0.26 | 26 | 0.2% | 30 | 0.3% | 0.593 | 0.71 |
| **Thrombocytopenia** | 1,891 | 7.5% | 686 | 5.5% | <.0001 | 8.12 | 659 | 5.8% | 653 | 5.7% | 0.865 | 0.23 |
| **Thrombophilia** | 1,761 | 7.0% | 513 | 4.1% | <.0001 | 12.56 | 536 | 4.7% | 491 | 4.3% | 0.151 | 1.91 |
| **Varicose veins** | 1,163 | 4.6% | 656 | 5.2% | 0.006 | 2.97 | 577 | 5.1% | 568 | 5.0% | 0.785 | 0.36 |
| **Congestive heart failure** | 6,616 | 26.2% | 2,878 | 23.0% | <.0001 | 7.37 | 2,706 | 23.8% | 2,703 | 23.8% | 0.963 | 0.06 |
| **Diabetes** | 10,538 | 41.7% | 4,782 | 38.2% | <.0001 | 7.09 | 4,421 | 38.9% | 4,403 | 38.7% | 0.807 | 0.33 |
| **Hypertension** | 16,671 | 65.9% | 5,984 | 47.8% | <.0001 | 37.22 | 5,844 | 51.4% | 5,823 | 51.2% | 0.781 | 0.37 |
| **Renal disease** | 8,794 | 34.8% | 4,258 | 34.0% | 0.145 | 1.60 | 3,881 | 34.2% | 3,889 | 34.2% | 0.911 | 0.15 |
| **Liver disease** | 1,990 | 7.9% | 924 | 7.4% | 0.095 | 1.84 | 830 | 7.3% | 854 | 7.5% | 0.543 | 0.81 |
| **COPD** | 7,190 | 28.4% | 3,189 | 25.5% | <.0001 | 6.66 | 2,950 | 26.0% | 2,985 | 26.3% | 0.597 | 0.70 |
| **Peptic ulcer disease** | 773 | 3.1% | 285 | 2.3% | <.0001 | 4.84 | 260 | 2.3% | 267 | 2.3% | 0.758 | 0.41 |
| **Inflammatory bowel disease** | 492 | 1.9% | 212 | 1.7% | 0.088 | 1.88 | 186 | 1.6% | 201 | 1.8% | 0.442 | 1.02 |
| **Peripheral vascular disease** | 7,412 | 29.3% | 3,384 | 27.0% | <.0001 | 5.06 | 3,171 | 27.9% | 3,134 | 27.6% | 0.584 | 0.73 |
| **Osteoporosis** | 3,777 | 14.9% | 1,799 | 14.4% | 0.146 | 1.59 | 1,709 | 15.0% | 1,651 | 14.5% | 0.278 | 1.44 |
| **Recent Fall History\*** | 2,638 | 10.4% | 1,163 | 9.3% | 0.001 | 3.83 | 1,046 | 9.2% | 1,086 | 9.6% | 0.363 | 1.21 |
| **Fracture/trauma Involving Lower Extremities\*** | 3,979 | 15.7% | 2,000 | 16.0% | 0.541 | 0.67 | 1,850 | 16.3% | 1,814 | 16.0% | 0.516 | 0.86 |
| **Selected Surgeries\*** | 7,031 | 27.8% | 2,924 | 23.4% | <.0001 | 10.20 | 2,717 | 23.9% | 2,798 | 24.6% | 0.210 | 1.66 |
| **Baseline Medication Use\*** | | | | | | | | | | | | |
| **Antiarrhythmic** | 3,364 | 13.3% | 1,691 | 13.5% | 0.578 | 0.61 | 1,467 | 12.9% | 1,514 | 13.3% | 0.356 | 1.23 |
| **Statins** | 8,719 | 34.5% | 4,530 | 36.2% | 0.001 | 3.58 | 4,077 | 35.9% | 4,053 | 35.7% | 0.740 | 0.44 |
| **Anti-platelets** | 2,021 | 8.0% | 1,025 | 8.2% | 0.508 | 0.72 | 892 | 7.9% | 930 | 8.2% | 0.353 | 1.23 |
| **Aromatase inhibitors** | 38 | 0.2% | 26 | 0.2% | 0.201 | 1.36 | 20 | 0.2% | 25 | 0.2% | 0.456 | 0.99 |
| **Beta blockers** | 9,446 | 37.4% | 4,536 | 36.2% | 0.035 | 2.31 | 4,173 | 36.7% | 4,129 | 36.3% | 0.544 | 0.80 |
| **Gastroprotective agents** | 10,379 | 41.0% | 5,188 | 41.5% | 0.452 | 0.82 | 4,673 | 41.1% | 4,681 | 41.2% | 0.914 | 0.14 |
| **SERMS** | 192 | 0.8% | 130 | 1.0% | 0.005 | 2.96 | 108 | 1.0% | 107 | 0.9% | 0.945 | 0.09 |
| **NSAIDs** | 5,415 | 21.4% | 3,030 | 24.2% | <.0001 | 6.66 | 2,623 | 23.1% | 2,656 | 23.4% | 0.604 | 0.69 |
| **Hormone therapy** | 578 | 2.3% | 355 | 2.8% | 0.001 | 3.49 | 312 | 2.7% | 301 | 2.6% | 0.652 | 0.60 |
| **Apixaban Index Dose** |  |  |  |  |  |  |  |  |  |  |  |  |
| **Standard dose (apixaban 5mg)** |  |  | 11,043 | 88.2% |  |  |  |  | 10,025 | 88.2% |  |  |
| **Lower dose (2.5mg apixaban** |  |  | 1,507 | 12.0% |  |  |  |  | 1,370 | 12.1% |  |  |
| **Baseline All-cause Health Care Utilization** | | | | | | | | | | | | |
| **Any ER visit** | 11,350 | 44.9% | 6,196 | 49.5% | <.0001 | 9.26 | 5,862 | 51.6% | 5,391 | 47.4% | <.0001 | 8.30 |
| **Any office visit** | 24,161 | 95.6% | 12,150 | 97.1% | <.0001 | 8.11 | 10,824 | 95.3% | 11,025 | 97.0% | <.0001 | 9.19 |
| **Any outpatient visit** | 22,092 | 87.4% | 11,140 | 89.0% | <.0001 | 5.08 | 10,153 | 89.4% | 10,000 | 88.0% | 0.001 | 4.25 |
| **Any inpatient admission** | 21,117 | 83.5% | 8,425 | 67.3% | <.0001 | 38.31 | 8,102 | 71.3% | 8,133 | 71.6% | 0.649 | 0.60 |
| **Any pharmacy visit** | 25,284 | 100.0% | 12,515 | 100.0% | . | 0.00 | 11,363 | 100.0% | 11,363 | 100.0% | . | 0.00 |
| **Any DME visit** | 11,050 | 43.7% | 5,156 | 41.2% | <.0001 | 5.07 | 4,684 | 41.2% | 4,734 | 41.7% | 0.501 | 0.89 |
| **Any SNF visit** | 5,734 | 22.7% | 1,950 | 15.6% | <.0001 | 18.12 | 2,124 | 18.7% | 1,857 | 16.3% | <.0001 | 6.18 |
| **Any HHA visit** | 8,611 | 34.1% | 3,172 | 25.3% | <.0001 | 19.15 | 3,489 | 30.7% | 2,965 | 26.1% | <.0001 | 10.24 |
| **Any hospice visit** | 233 | 0.9% | 158 | 1.3% | 0.002 | 3.28 | 103 | 0.9% | 150 | 1.3% | 0.003 | 3.94 |
| **# of ER visits** | 0.11 | 0.18 | 0.12 | 0.17 | <.0001 | 5.05 | 0.13 | 0.18 | 0.12 | 0.17 | <.0001 | 6.51 |
| **# of office visits** | 1.71 | 1.40 | 1.71 | 1.36 | 0.984 | 0.02 | 1.67 | 1.38 | 1.70 | 1.35 | 0.141 | 1.96 |
| **# of outpatient visits** | 0.76 | 0.80 | 0.69 | 0.73 | <.0001 | 9.71 | 0.77 | 0.79 | 0.68 | 0.73 | <.0001 | 11.96 |
| **# of inpatient admissions** | 0.22 | 0.17 | 0.17 | 0.17 | <.0001 | 31.19 | 0.18 | 0.17 | 0.18 | 0.17 | 0.039 | 2.74 |
| **Length of inpatient stay (in days)** | 1.55 | 1.85 | 1.00 | 1.52 | <.0001 | 32.66 | 1.28 | 1.73 | 1.07 | 1.56 | <.0001 | 12.51 |
| **# of pharmacy visits** | 2.64 | 1.81 | 2.63 | 1.84 | 0.700 | 0.42 | 2.65 | 1.86 | 2.63 | 1.84 | 0.241 | 1.56 |
| **# of DME utilizations** | 0.27 | 0.52 | 0.26 | 0.51 | 0.006 | 3.00 | 0.25 | 0.50 | 0.26 | 0.51 | 0.214 | 1.65 |
| **# of SNF visits** | 0.08 | 0.20 | 0.06 | 0.17 | <.0001 | 13.99 | 0.07 | 0.18 | 0.06 | 0.17 | 0.000 | 4.70 |
| **# of HHA visits** | 0.08 | 0.12 | 0.06 | 0.12 | <.0001 | 14.50 | 0.07 | 0.12 | 0.06 | 0.12 | <.0001 | 7.49 |
| **# of hospice visits** | 0.00 | 0.04 | 0.01 | 0.06 | 0.001 | 3.94 | 0.00 | 0.04 | 0.01 | 0.06 | 0.002 | 4.07 |
| **Baseline All-cause Health Care Costs (PPPM)** | | | | | | | | | | | | |
| **ER visit costs** | $111 | $132 | $118 | $145 | <.0001 | 5.04 | $118 | $136 | $114 | $138 | 0.022 | 3.05 |
| **Office visit costs** | $340 | $496 | $334 | $459 | 0.229 | 1.30 | $324 | $466 | $334 | $460 | 0.104 | 2.16 |
| **Other outpatient costs** | $352 | $719 | $327 | $688 | 0.002 | 3.43 | $347 | $645 | $327 | $696 | 0.021 | 3.05 |
| **Total outpatient costs (ER + office + other)** | $802 | $978 | $779 | $890 | 0.020 | 2.50 | $789 | $890 | $774 | $896 | 0.217 | 1.64 |
| **Inpatient stay costs** | $3,064 | $3,970 | $2,107 | $3,137 | <.0001 | 26.76 | $2,481 | $3,534 | $2,246 | $3,213 | <.0001 | 6.96 |
| **Total medical costs (outpatient + inpatient)** | $3,866 | $4,254 | $2,886 | $3,366 | <.0001 | 25.57 | $727 | $1,534 | $682 | $1,549 | 0.028 | 2.91 |
| **Pharmacy costs** | $349 | $723 | $433 | $869 | <.0001 | 10.58 | $48 | $300 | $52 | $268 | 0.229 | 1.60 |
| **Other costs (DME, SNF, HHA, and hospice)** | $867 | $1,716 | $658 | $1,518 | <.0001 | 12.92 | $473 | $1,387 | $436 | $1,406 | 0.045 | 2.66 |
| **DME costs** | $51 | $312 | $51 | $268 | 0.986 | 0.02 | $195 | $379 | $176 | $374 | 0.000 | 5.10 |
| **SNF costs** | $587 | $1,580 | $417 | $1,374 | <.0001 | 11.47 | $11 | $168 | $18 | $223 | 0.008 | 3.50 |
| **HHA costs** | $217 | $394 | $171 | $369 | <.0001 | 12.15 | $3,997 | $4,461 | $3,702 | $4,177 | <.0001 | 6.82 |
| **Hospice costs** | $11 | $164 | $18 | $223 | 0.002 | 3.54 | $339 | $667 | $433 | $852 | <.0001 | 12.24 |
| **Total costs (outpatient + inpatient + pharmacy + other)** | $5,082 | $5,096 | $3,976 | $4,239 | <.0001 | 23.58 | $4,336 | $4,555 | $4,135 | $4,322 | 0.001 | 4.53 |

COPD: chronic obstructive pulmonary disease; DME: durable medical equipment; DVT: deep vein thrombosis; ER: emergency room (department); HHA: home health agency; NSAIDs: nonsteroidal anti-inflammatory drugs; PE: pulmonary embolism; SD: standard deviation; SERMs: selective estrogen receptor modulators; SNF: skilled nursing facility; STD: standardized difference; VTE: venous thromboembolism.

\*Variables that were included in propensity score matching (PSM).

\*\*STD: standardized difference=100\* (actual STD). A standardized difference greater than 10 is considered significant.

**Supplementary Table 3. Sensitivity Analysis for Recurrent VTE**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Incidence Rates** | **Hazard Ratio** | **95%**  **CI** | | **P-value** |
| **Recurrent VTE (including 7 days)** |  |  |  |  |  |
| **Apixaban (reference)** | 2.38 | 1.01 | 0.76 | 1.35 | 0.9179 |
| **Warfarin** | 2.29 |
| **Recurrent VTE (including ER)** |  |  |  |  |  |
| **Apixaban (reference)** | 3.06 | 1.47 | 1.16 | 1.85 | 0.0014 |
| **Warfarin** | 4.29 |
| **Recurrent VTE (including 7 days + ER)** |  |  |  |  |  |
| **Apixaban (reference)** | 3.6 | 1.56 | 1.25 | 1.92 | <.0001 |
| **Warfarin** | 5.33 |

CI: confidence interval; ER: emergency room; VTE: venous thromboembolism.

**Supplementary Table 4. Sensitivity Analysis for Recurrent VTE-related Costs**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Warfarin Cohort** | | | | **Apixaban Cohort (Reference)** | | | | **Diff. (Marginal Effects [ME])** | | | **95% CI for Diff. (ME)** | | **P-Value** |
| **Marginal Effect** | | **95% Percentile CI for Marginal Effect** | | **Marginal Effect** | **95% Percentile CI for Marginal Effect** | | |
| **Follow-up Recurrent VTE-related Medical Costs (PPPM) (including 7 Days)** | $42 | $28 | | $58 | $55 | | $38 | $75 | | -$13 | $9 | -$34 | 0.285 | |
| **Follow-up Recurrent VTE-related Medical Costs (PPPM) (including ER)** | $45 | $31 | | $59 | $47 | | $31 | $68 | | -$3 | $20 | -$27 | 0.795 | |
| **Follow-up Recurrent VTE-related Medical Costs (PPPM) (including 7 days + ER)** | $52 | $38 | | $68 | $66 | | $45 | $92 | | -$14 | $14 | -$43 | 0.351 | |

CI: confidence interval; ER: emergency room (department); PPPM: per patient per month; VTE: venous thromboembolism.