

Online-Only Data Supplement

Patterns of Use and Discontinuation of Secondary Prevention Medications After Stroke

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Supplemental Tables

Table e-1. World Health Organization Anatomical Therapeutic Chemical Classification Codes Used to Identify Medications for Secondary Prevention of Stroke

Table e-2: Clinical diagnosis definitions in the Australian Stroke Clinical Registry Data Dictionary

Table e-3. Medicare Benefits Schedule Item Codes Used to Identify Claims Related to Care Provided by Primary-Care Physicians

Table e-4: Use and Discontinuation of Secondary Prevention Medications, by Type of Stroke and Class of Secondary Prevention Medication

Table e-5. Comparison of Users and Non-Users of Secondary Prevention Medications in the Year After Discharge for Stroke or TIA, by Patient, Acute-Care and Primary-Care Factors

Table e-6. Differences in the Use of Secondary Prevention Medications One-Year After Stroke Between Men and Women, Stratified by Age Group

Table e-7. Comparison of Medication Users Who Discontinued or Did Not Discontinue Secondary Prevention Medications in the Year After Discharge for Stroke or TIA, by Patient, Acute-Care and Primary-Care Factors

Table e-8. Effect of Modifying the Treatment Gap Used to Define Discontinuation on the Discontinuation of Secondary Prevention Medications in the Year After Discharge for Stroke or TIA

Table e-9: Multivariable Model of Factors Associated with the Discontinuation of Antithrombotic Medications, Excluding Aspirin, in the Year After Discharge for Stroke or TIA

Table e-10. Multivariable Model of Factors Associated with Discontinuation of Secondary Prevention Medications After Stroke or TIA, Among Incident Users of Each Class of Medication

Table e-11. Multivariable Model of Factors Associated with the Discontinuation of Secondary Prevention Medications in the Year After Discharge for Stroke or TIA, among those with complete prescription data

Supplemental Figures

Figure e-1. Days to Discontinuation of Aspirin or Other Antithrombotic Medication Within One Year of Discharge Following Stroke or TIA

Table e-1: World Health Organization Anatomical Therapeutic Chemical Classification Codes Used to Identify Medications for Secondary Prevention of Stroke

| Type of medication | ATC Code |
|---|------------------|
| Antihypertensive | |
| Antihypertensives | C02 |
| Diuretics | C03 |
| Beta-blocking agents | C07 |
| Calcium channel blockers | C08 |
| Agents acting on the renin-angiotensin system | C09 |
| Antithrombotic | B01, N02BA01 |
| Aspirin, not in combination with other agents | B01AC06, N02BA01 |
| Lipid-Lowering | C10 |

ATC denotes Anatomical Therapeutic Chemical.

Table e-2: Clinical diagnosis definitions in the Australian Stroke Clinical Registry Data Dictionary

| Clinical diagnosis | Definition |
|----------------------------|---|
| Transient ischaemic attack | Stroke type if the patient's definitive or probable diagnosis at the time of discharge from hospital is compatible with a TIA (i.e. symptoms/neurological deficits persisted < 24 hours of onset; normal neuroimaging). |
| Ischaemic stroke | Stroke type if the brain imaging is consistent with cortical, sub-cortical, brainstem or cerebellar infarction |
| Haemorrhage stroke | Stroke type if the brain imaging is consistent with intraventricular, intracerebral haemorrhage (ICH) or other nontraumatic intracerebral haemorrhage |
| Undetermined stroke type | Stroke Type if the brain imaging report is inconclusive or if no brain imaging has been undertaken and the stroke type cannot be confirmed through other diagnostic assessments |

Adapted from Australian Stroke Clinical Registry Data Dictionary (available from www.auscr.com.au)

Table e-3: Medicare Benefits Schedule Item Codes Used to Identify Claims Related to Care Provided by Primary-Care Physicians

| Variable | Medicare Benefits Schedule Item ^a |
|--|--|
| Physician visit | |
| Attendance with GP | 3, 4, 20, 23, 24, 35, 36, 37, 43, 44, 47, 51 |
| Attendance with GP in which acupuncture is administered | 193, 195, 197, 199 |
| Urgent after-hours attendance with GP | 597, 599 |
| Health assessment with GP | 701, 703, 705, 707, 715 |
| GP care plans and multidisciplinary case conferences | 721, 723, 729, 731, 732, 735, 739, 743, 747, 750, 758 |
| Medication management review | 900, 903 |
| GP attendance associated with Practice Incentive Program payment | 2497, 2501, 2503, 2504, 2506, 2507, 2509, 2517, 2518, 2521, 2522, 2525, 2526, 2546, 2547, 2552, 2553, 2558, 2559 |
| GP mental health care | 2700, 2701, 2710, 2712, 2713, 2715, 2717, 2719, 2721, 2723, 2725, 2727 |
| GP after-hours attendance in which no other item applies | 5000, 5003, 5010, 5020, 5023, 5028, 5040, 5043, 5049, 5060, 5063, 5067 |
| Chronic disease management plan | 721 |
| Team care arrangement | 723 |
| Medication management review | 900, 903 |

GP denotes general practitioner (also termed primary-care physician)

^a Excludes in-hospital claims

Table e-4: Use and Discontinuation of Secondary Prevention Medications, by Type of Stroke and Class of Secondary Prevention Medication

| | Type of Stroke | | |
|--|--------------------------------------|-----------------------------|---------------------------------------|
| | Intracerebral Haemorrhage N= 1122 | Ischaemic Stroke N= 6684 | Transient Ischaemic Attack N= 1679 |
| Class of secondary prevention medication | n (%) | n (%) | n (%) |
| Antihypertensive | | | |
| User within 1-year | 838 (74.7) | 5378 (80.5) | 1325 (78.9) |
| Median time to initiation (Q1, Q3) | 24 (6, 54) | 17 (3, 42) | 9 (1, 25) |
| Discontinued within 1-year ^a | 186 (22.2) | 1129 (21.0) | 248 (18.7) |
| Median time to discontinuation (Q1, Q3) | 149.5 (80, 242) | 154 (84, 246) | 149 (81, 255) |
| Antithrombotic | | | |
| User within 1-year | ... | 5521 (82.6) | 1341 (79.9) |
| Median time to initiation (Q1, Q3) | ... | 13 (1, 40) | 1 (0, 17) |
| Discontinued within 1-year ^a | ... | 1830 (33.2) | 490 (36.5) |
| Median time to discontinuation (Q1, Q3) | ... | 152 (112, 243) | 113 (112, 227) |
| Lipid-lowering | | | |
| User within 1-year | ... | 5548 (83.0) | 1406 (83.7) |
| Median time to initiation (Q1, Q3) | ... | 11 (1, 31) | 3 (0, 18) |
| Discontinued within 1-year ^a | ... | 1544 (27.8) | 439 (31.2) |
| Median time to discontinuation (Q1, Q3) | ... | 128 (60, 226) | 114 (40, 232) |

Q1 denotes 25th percentile; Q3, 75th percentile

^a Percentage out of the corresponding number of medication users in each type of stroke

Table e-5: Comparison of Users and Non-Users of Secondary Prevention Medications in the Year After Discharge for Stroke or TIA, by Patient, Acute-Care and Primary-Care Factors

| | Antihypertensive Medication | | | Antithrombotic Medication | | | Lipid-Lowering Medication | | |
|--------------------------------------|-----------------------------|----------------------|---------|---------------------------|----------------------|---------|---------------------------|----------------------|---------|
| | Non-User N=2028 | User N=7789 | P Value | Non-User N=1583 | User N=7112 | P Value | Non-User N=1501 | User N= 7194 | P Value |
| | n (%) | n (%) | | n (%) | n (%) | | n (%) | n (%) | |
| Patient factors | | | | | | | | | |
| Female | 906 (44.7) | 3554 (45.6) | 0.44 | 716 (45.2) | 3212 (45.2) | 0.96 | 828 (55.2) | 3100 (43.1) | <0.001 |
| Age, median (Q1, Q3), years | 67.9 (53.8, 81.3) | 75.1 (65.4, 82.6) | <0.001 | 67.9 (55.9, 81.2) | 75.0 (65.3, 82.7) | <0.001 | 78.7 (62.4, 86.5) | 73.5 (63.6, 81.5) | <0.001 |
| Born in Australia | 1351 (66.6) | 5011 (64.3) | 0.06 | 1038 (65.6) | 4642 (65.3) | 0.82 | 1000 (66.6) | 4680 (65.1) | 0.25 |
| Socioeconomic position | | | | | | | | | |
| Most disadvantaged | 213 (10.7) | 838 (10.9) | 0.60 | 161 (10.3) | 743 (10.6) | <0.001 | 148 (10.1) | 756 (10.7) | 0.66 |
| Second most disadvantaged | 315 (15.8) | 1250 (16.3) | | 240 (15.4) | 1144 (16.3) | | 230 (15.7) | 1154 (16.3) | |
| Third most disadvantaged | 384 (19.3) | 1534 (20.0) | | 265 (17.0) | 1453 (20.7) | | 284 (19.4) | 1434 (20.2) | |
| Fourth most disadvantaged | 443 (22.3) | 1751 (22.8) | | 345 (22.2) | 1616 (23.1) | | 337 (23.0) | 1624 (22.9) | |
| Least disadvantaged | 634 (31.9) | 2299 (30.0) | | 546 (35.1) | 2050 (29.3) | | 467 (31.9) | 2129 (30.0) | |
| Concession card holder | 757 (55.0) | 6006 (77.1) | <0.001 | 591 (52.2) | 5492 (77.2) | <0.001 | 790 (75.2) | 5293 (73.6) | 0.25 |
| Use of medication prior to admission | 445 (21.9) | 5353 (68.7) | <0.001 | 199 (12.6) | 1915 (26.9) | <0.001 | 207 (13.8) | 3082 (42.8) | <0.001 |
| Type of stroke | | | | | | | | | |
| Intracerebral hemorrhage | 284 (14.0) | 838 (10.8) | <0.001 | ... | ... | <0.001 | ... | ... | <0.001 |
| Acute ischemic stroke | 1306 (64.4) | 5378 (69.1) | | 1163 (73.6) | 5521 (77.7) | | 1136 (75.8) | 5548 (77.2) | |
| Transient ischemic attack | 354 (17.5) | 1325 (17.0) | | 338 (21.4) | 1341 (18.9) | | 273 (18.2) | 1406 (19.6) | |
| Undetermined | 83 (4.1) | 241 (3.1) | | 80 (5.1) | 244 (3.4) | | 89 (5.9) | 235 (3.3) | |
| Unable to walk on admission | 1016 (50.1) | 3723 (47.8) | 0.07 | 729 (46.1) | 3285 (46.2) | 0.92 | 836 (55.7) | 3178 (44.2) | <0.001 |
| Stroke occurred in while in-hospital | 106 (5.4) | 349 (4.6) | 0.13 | 96 (6.3) | 313 (4.5) | 0.003 | 109 (7.6) | 300 (4.2) | <0.001 |
| Year discharged | | | | | | | | | |
| 2010 | 246 (12.1) | 594 (7.6) | <0.001 | 179 (11.3) | 567 (8.0) | <0.001 | 116 (7.7) | 630 (8.8) | 0.36 |
| 2011 | 362 (17.9) | 1246 (16.0) | | 295 (18.6) | 1134 (15.9) | | 256 (17.1) | 1173 (16.3) | |
| 2012 | 446 (22.0) | 1973 (25.3) | | 406 (25.7) | 1710 (24.0) | | 357 (23.8) | 1759 (24.5) | |
| 2013 | 636 (31.4) | 2559 (32.9) | | 471 (29.8) | 2348 (33.0) | | 511 (34.0) | 2308 (32.1) | |
| 2014 | 338 (16.7) | 1417 (18.2) | | 232 (14.7) | 1353 (19.0) | | 261 (17.4) | 1324 (18.4) | |
| Acute-care factors | | | | | | | | | |
| Transfer from another hospital | 320 (16.3) | 923 (12.1) | <0.001 | 191 (12.5) | 793 (11.3) | 0.19 | 211 (14.6) | 773 (10.9) | <0.001 |
| Received thrombolysis | 157 (12.1) | 727 (13.6) | 0.16 | 143 (12.4) | 741 (13.5) | 0.32 | 136 (12.1) | 748 (13.6) | 0.17 |
| Treated in a stroke unit | 1595 (78.7) | 6441 (82.7) | <0.001 | 1266 (80.0) | 5979 (84.1) | <0.001 | 1130 (75.3) | 6115 (85.0) | <0.001 |
| Treated in a rural hospital | 367 (18.1) | 1336 (17.2) | 0.32 | 237 (15.0) | 1298 (18.3) | 0.002 | 321 (21.4) | 1214 (16.9) | <0.001 |

| | Antihypertensive Medication | | | Antithrombotic Medication | | | Lipid-Lowering Medication | | |
|--|-----------------------------|----------------|---------|---------------------------|----------------|---------|---------------------------|-----------------|---------|
| | Non-User N=2028 | User N=7789 | P Value | Non-User N=1583 | User N=7112 | P Value | Non-User N=1501 | User N= 7194 | P Value |
| | n (%) | n (%) | | n (%) | n (%) | | n (%) | n (%) | |
| Treated in a large hospital (>300 beds) | 1832 (90.3) | 7010 (90.0) | 0.65 | 1425 (90.0) | 6358 (89.4) | 0.47 | 1370 (91.3) | 6413 (89.1) | 0.014 |
| Hospital volume ^b | | | | | | | | | |
| Low (<100 cases) | 67 (3.3) | 214 (2.8) | | 60 (3.8) | 196 (2.8) | | 67 (4.5) | 189 (2.6) | |
| Medium (100-199 cases) | 406 (20.0) | 1595 (20.5) | 0.39 | 317 (20.0) | 1523 (21.4) | 0.05 | 275 (18.3) | 1565 (21.8) | <0.001 |
| High (>200 cases) | 1555 (76.7) | 5980 (76.8) | | 1206 (76.2) | 5393 (75.8) | | 1159 (77.2) | 5440 (75.6) | |
| Hospital state | | | | | | | | | |
| Australian Capital Territory/New South Wales | 634 (31.8) | 2022 (26.3) | | 506 (32.5) | 1784 (25.4) | | 487 (33.1) | 1803 (25.4) | |
| Queensland | 395 (19.8) | 1269 (16.5) | | 198 (12.7) | 1286 (18.3) | | 303 (20.6) | 1181 (16.6) | |
| Tasmania | 94 (4.7) | 401 (5.2) | <0.001 | 83 (5.3) | 363 (5.2) | <0.001 | 52 (3.5) | 394 (5.5) | <0.001 |
| Victoria | 731 (36.7) | 3598 (46.8) | | 675 (43.4) | 3191 (45.4) | | 579 (39.4) | 3287 (46.2) | |
| Western Australia | 138 (6.9) | 396 (5.2) | | 94 (6.0) | 400 (5.7) | | 49 (3.3) | 445 (6.3) | |
| Length of stay, median (Q1, Q3), days | 5 (2, 10) | 5 (2, 9) | 0.85 | 4 (2, 8) | 5 (2, 8) | 0.033 | 6 (2, 12) | 4 (2, 8) | <0.001 |
| Prescribed antihypertensive at discharge | 616 (30.4) | 6087 (78.2) | <0.001 | ... | ... | | ... | ... | |
| Discharged to community with care plan | 517 (49.6) | 2256 (55.3) | 0.001 | 471 (54.0) | 2094 (53.5) | 0.79 | 347 (49.5) | 2218 (54.3) | 0.018 |
| Discharge destination | | | | | | | | | |
| Home | 984 (48.5) | 4004 (51.4) | | 854 (54.0) | 3817 (53.7) | | 586 (39.0) | 4085 (56.8) | |
| Inpatient rehabilitation | 441 (21.8) | 2402 (30.8) | <0.001 | 320 (20.2) | 2100 (29.5) | <0.001 | 370 (24.7) | 2050 (28.5) | <0.001 |
| Aged care facility | 170 (8.4) | 466 (6.0) | | 130 (8.2) | 413 (5.8) | | 209 (13.9) | 334 (4.6) | |
| Other ^c | 433 (21.4) | 917 (11.8) | | 279 (17.6) | 782 (11.0) | | 336 (22.4) | 725 (10.1) | |
| Primary-care factors | | | | | | | | | |
| Frequency of contacts with primary-care physician, median (Q1, Q3) | 8 (2, 15) | 14 (9, 22) | <0.001 | 8 (2, 15) | 14 (9, 22) | <0.001 | 9 (2, 18) | 14 (8, 21) | <0.001 |
| Quarterly contact with primary-care physician | 866 (42.7) | 5560 (71.4) | <0.001 | 709 (44.8) | 5056 (71.1) | <0.001 | 675 (45.0) | 5090 (70.8) | <0.001 |
| Received chronic disease management plan | 394 (19.4) | 2418 (31.0) | <0.001 | 337 (21.3) | 2181 (30.7) | <0.001 | 268 (17.9) | 2250 (31.3) | <0.001 |
| Received team-care arrangement | 324 (16.0) | 2112 (27.1) | <0.001 | 301 (19.0) | 1881 (26.5) | <0.001 | 229 (15.3) | 1953 (27.2) | <0.001 |
| Received medication review | 99 (4.9) | 772 (9.9) | <0.001 | 58 (3.7) | 685 (9.6) | <0.001 | 140 (9.3) | 603 (8.4) | 0.23 |
| Same primary-care physician prescribed \geq 90% of medications | 664 (41.8) | 2791 (36.0) | <0.001 | 609 (49.0) | 2436 (34.4) | <0.001 | 498 (43.2) | 2547 (35.5) | <0.001 |
| Prescribed by specialist physician | 226 (11.1) | 2187 (28.1) | <0.001 | 192 (12.1) | 2006 (28.2) | <0.001 | 252 (16.8) | 1946 (27.1) | <0.001 |

Q1 denotes 25th percentile; Q3, 75th percentile

^a Determined using Index of Relative Socioeconomic Advantage and Disadvantage

^b Based on average of episodes submitted to the Australian Stroke Clinical Registry each year of hospital participation

^c Other refers to other acute care, transitional care services, statistical discharges and patients who left against medical advice.

Table e-6: Differences in the Use of Secondary Prevention Medications One-Year After Stroke Between Men and Women, Stratified by Age Group

| Age group | Antihypertensive Medication | | | Antithrombotic Medication | | | Lipid-Lowering Medication | | |
|------------------------------|-----------------------------|-------------------------|----------------|---------------------------|--------------------------|----------------|---------------------------|--------------------------|----------------|
| | Men N=1779 n (%) | Women N=990 n (%) | <i>P</i> Value | Men N=2982 n (%) | Women N=2385 n (%) | <i>P</i> Value | Men N=596 n (%) | Women N=1085 n (%) | <i>P</i> Value |
| <65 years (N=2769) | 1252 (70.4) | 609 (61.5) | <0.001 | 1142 (71.3) | 601 (72.5) | 0.53 | 1359 (84.8) | 657 (79.3) | 0.001 |
| 65-84 years (N=5367) | 2519 (84.5) | 2057 (86.3) | 0.07 | 2313 (87.7) | 1811 (85.3) | 0.017 | 2348 (89.0) | 1802 (84.9) | <0.001 |
| 85+ years (N=1681) | 464 (77.9) | 888 (81.8) | 0.049 | 445 (84.4) | 800 (82.0) | 0.23 | 387 (73.4) | 641 (65.7) | 0.002 |

Table e-7: Comparison of Medication Users Who Discontinued or Did Not Discontinue Secondary Prevention Medications in the Year After Discharge for Stroke or TIA, by Patient, Acute-Care and Primary-Care Factors

| | Discontinuation of Antihypertensive Medication | | | Discontinuation of Antithrombotic Medication | | | Discontinuation of Lipid-Lowering Medication | | |
|--|--|----------------------|---------|--|----------------------|---------|--|----------------------|---------|
| | No N=6165 | Yes N=1624 | P Value | No N=4686 | Yes N=2426 | P Value | No N=5141 | Yes N=2053 | P Value |
| | n (%) | n (%) | | n (%) | n (%) | | n (%) | n (%) | |
| Patient factors | | | | | | | | | |
| Female | 2806 (45.5) | 748 (46.1) | 0.70 | 2120 (45.2) | 1092 (45.0) | 0.85 | 2165 (42.1) | 935 (45.5) | 0.008 |
| Age, median (Q1, Q3), y | 74.6 (65.4, 82.1) | 77.4 (66.0, 85.3) | <0.001 | 75.8 (66.9, 82.7) | 73.1 (61.1, 82.7) | <0.001 | 73.5 (64.7, 81.0) | 73.5 (60.4, 83.2) | 0.53 |
| Born in Australia | 3959 (64.2) | 1052 (64.8) | 0.68 | 3064 (65.4) | 1578 (65.1) | 0.78 | 3366 (65.5) | 1314 (64.0) | 0.24 |
| Socioeconomic position ^a | | | | | | | | | |
| Most disadvantaged | 672 (11.1) | 166 (10.4) | | 496 (10.7) | 247 (10.4) | | 565 (11.1) | 191 (9.5) | |
| Second most disadvantaged | 990 (16.3) | 260 (16.3) | | 741 (16.0) | 403 (16.9) | | 817 (16.1) | 337 (16.7) | |
| Third most disadvantaged | 1212 (20.0) | 322 (20.1) | 0.59 | 998 (21.6) | 455 (19.1) | 0.14 | 1027 (20.2) | 407 (20.1) | 0.31 |
| Fourth most disadvantaged | 1402 (23.1) | 349 (21.8) | | 1062 (23.0) | 554 (23.3) | | 1147 (22.6) | 477 (23.6) | |
| Least disadvantaged | 1797 (30.0) | 502 (31.4) | | 1329 (28.7) | 721 (30.3) | | 1520 (29.9) | 609 (30.1) | |
| Concession card holder | 4771 (77.4) | 1235 (76.1) | 0.25 | 3768 (80.4) | 1724 (71.1) | <0.001 | 3977 (77.4) | 1316 (64.1) | <0.001 |
| Use of medication prior to admission | 4403 (71.4) | 950 (58.5) | <0.001 | 1445 (30.8) | 470 (19.4) | <0.001 | 2485 (48.3) | 597 (29.1) | <0.001 |
| Type of stroke | | | | | | | | | |
| Intracerebral hemorrhage | 652 (10.6) | 186 (11.5) | | ... | ... | | ... | ... | |
| Acute ischemic stroke | 4249 (69.0) | 1129 (69.6) | 0.07 | 3691 (78.8) | 1830 (75.5) | | 4004 (78.0) | 1544 (75.2) | |
| Transient ischemic attack | 1077 (17.5) | 248 (15.3) | | 851 (18.2) | 490 (20.2) | 0.001 | 967 (18.8) | 439 (21.4) | 0.039 |
| Undetermined | 181 (2.9) | 60 (3.7) | | 140 (3.0) | 104 (4.3) | | 165 (3.2) | 70 (3.4) | |
| Unable to walk on admission ^c | 2843 (46.1) | 880 (54.2) | <0.001 | 2159 (46.1) | 1126 (46.4) | 0.79 | 2268 (44.1) | 910 (44.3) | 0.87 |
| Stroke occurred in hospital | 263 (4.4) | 86 (5.4) | 0.07 | 204 (4.4) | 109 (4.6) | 0.79 | 206 (4.1) | 94 (4.7) | 0.29 |
| Year discharged | | | | | | | | | |
| 2010 | 468 (7.6) | 126 (7.8) | | 407 (8.7) | 160 (6.6) | | 479 (9.3) | 151 (7.4) | |
| 2011 | 1015 (16.5) | 231 (14.2) | | 782 (16.7) | 352 (14.5) | | 862 (16.8) | 311 (15.2) | |
| 2012 | 1561 (25.3) | 412 (25.4) | 0.26 | 1140 (24.3) | 570 (23.5) | <0.001 | 1271 (24.7) | 488 (23.8) | <0.001 |
| 2013 | 2013 (32.7) | 546 (33.6) | | 1484 (31.7) | 864 (35.6) | | 1568 (30.5) | 740 (36.0) | |
| 2014 | 1108 (18.0) | 309 (19.0) | | 873 (18.6) | 480 (19.8) | | 961 (18.7) | 363 (17.7) | |
| Acute-care factors | | | | | | | | | |
| Transfer from another hospital | 728 (12.0) | 195 (12.2) | 0.83 | 528 (11.5) | 265 (11.1) | 0.60 | 548 (10.8) | 225 (11.1) | 0.72 |
| Received thrombolysis (if ischemic stroke) | 561 (13.3) | 166 (14.8) | 0.20 | 511 (14.0) | 230 (12.7) | 0.18 | 561 (14.2) | 187 (12.2) | 0.06 |
| Treated in a stroke unit | 5136 (83.3) | 1305 (80.4) | 0.005 | 3958 (84.5) | 2021 (83.3) | 0.21 | 4367 (84.9) | 1748 (85.1) | 0.83 |
| Treated in a rural hospital | 1068 (17.3) | 268 (16.5) | 0.44 | 857 (18.3) | 441 (18.2) | 0.91 | 875 (17.0) | 339 (16.5) | 0.60 |

| | Discontinuation of Antihypertensive Medication | | | Discontinuation of Antithrombotic Medication | | | Discontinuation of Lipid-Lowering Medication | | |
|--|--|-------------|---------|--|-------------|---------|--|-------------|---------|
| | No | Yes | P Value | No | Yes | P Value | No | Yes | P Value |
| | N=6165 | N=1624 | | N=4686 | N=2426 | | N=5141 | N=2053 | |
| | n (%) | n (%) | | n (%) | n (%) | | n (%) | n (%) | |
| Treated in a large hospital (>300 beds) | 5548 (90.0) | 1462 (90.0) | 0.97 | 4207 (89.8) | 2151 (88.7) | 0.15 | 4580 (89.1) | 1833 (89.3) | 0.81 |
| Hospital volume ^b | | | | | | | | | |
| Low (<100 cases) | 162 (2.6) | 52 (3.2) | 0.36 | 132 (2.8) | 64 (2.6) | 0.018 | 139 (2.7) | 50 (2.4) | 0.81 |
| Medium (100-199 cases) | 1274 (20.7) | 321 (19.8) | | 957 (20.4) | 566 (23.3) | | 1117 (21.7) | 448 (21.8) | |
| High (>200 cases) | 4729 (76.7) | 1251 (77.0) | | 3597 (76.8) | 1796 (74.0) | | 3885 (75.6) | 1555 (75.7) | |
| Hospital state | | | | | | | | | |
| Australian Capital Territory/New South Wales | 1576 (25.9) | 446 (27.9) | 0.21 | 1194 (25.8) | 590 (24.7) | <0.001 | 1329 (26.1) | 474 (23.4) | 0.14 |
| Queensland | 1013 (16.6) | 256 (16.0) | | 893 (19.3) | 393 (16.4) | | 828 (16.3) | 353 (17.4) | |
| Tasmania | 333 (5.5) | 68 (4.3) | | 264 (5.7) | 99 (4.1) | | 282 (5.6) | 112 (5.5) | |
| Victoria | 2849 (46.8) | 749 (46.8) | | 2036 (44.0) | 1155 (48.3) | | 2339 (46.0) | 948 (46.8) | |
| Western Australia | 316 (5.2) | 80 (5.0) | | 245 (5.3) | 155 (6.5) | | 307 (6.0) | 138 (6.8) | |
| Length of stay, median (Q1, Q3), days | 5 (2, 8) | 5 (3, 10) | <0.001 | 5 (2, 8) | 4 (2, 8) | 0.31 | 4 (2, 8) | 4 (2, 8) | 0.56 |
| Prescribed antihypertensive at discharge | 4924 (79.9) | 1163 (71.6) | <0.001 | ... | ... | | ... | ... | |
| Discharged to community with care plan ^b | 1802 (55.8) | 454 (53.5) | 0.23 | 1319 (52.8) | 775 (54.8) | 0.22 | 1545 (54.2) | 673 (54.5) | 0.85 |
| Discharge destination | | | | | | | | | |
| Home | 3259 (52.9) | 745 (45.9) | <0.001 | 2477 (52.9) | 1340 (55.2) | <0.001 | 2892 (56.3) | 1193 (58.1) | <0.001 |
| Inpatient rehabilitation | 1909 (31.0) | 493 (30.4) | | 1449 (30.9) | 651 (26.8) | | 1520 (29.6) | 530 (25.8) | |
| Aged care facility | 290 (4.7) | 176 (10.8) | | 225 (4.8) | 188 (7.8) | | 199 (3.9) | 135 (6.6) | |
| Other ^c | 707 (11.5) | 210 (12.9) | | 535 (11.4) | 247 (10.2) | | 530 (10.3) | 195 (9.5) | |
| Primary-care factors | | | | | | | | | |
| Frequency of contacts with primary-care physician, median (Q1, Q3) | 15 (10, 22) | 12 (6, 19) | <0.001 | 16 (10, 24) | 12 (6, 18) | <0.001 | 15 (9, 22) | 12 (6, 19) | <0.001 |
| Quarterly contact with primary-care physician | 4821 (78.2) | 739 (45.5) | <0.001 | 3737 (79.8) | 1319 (54.4) | <0.001 | 4010 (78.0) | 1080 (52.6) | <0.001 |
| Received chronic disease management plan | 2045 (33.2) | 373 (23.0) | <0.001 | 1579 (33.7) | 602 (24.8) | <0.001 | 1744 (33.9) | 506 (24.7) | <0.001 |
| Received team-care arrangement | 1791 (29.1) | 321 (19.8) | <0.001 | 1380 (29.5) | 501 (20.7) | <0.001 | 1528 (29.7) | 425 (20.7) | <0.001 |
| Received medication review | 603 (9.8) | 169 (10.4) | 0.45 | 512 (10.9) | 173 (7.1) | <0.001 | 444 (8.6) | 159 (7.7) | 0.22 |
| Same primary-care physician prescribed \geq 90% of medications | 2306 (37.5) | 485 (30.0) | <0.001 | 1771 (37.9) | 665 (27.6) | <0.001 | 1981 (38.6) | 566 (27.7) | <0.001 |
| Prescribed by specialist physician | 1809 (29.3) | 378 (23.3) | <0.001 | 1387 (29.6) | 619 (25.5) | <0.001 | 1449 (28.2) | 497 (24.2) | 0.001 |

Q1 denotes 25th percentile; Q3, 75th percentile. ^a Determined using Index of Relative Socioeconomic Advantage and Disadvantage.

^b Based on average number of episodes submitted to the Australian Stroke Clinical Registry each year of hospital participation

^c Other refers to other acute care, transitional care services, statistical discharges and patients who left against medical advice.

Table e-8: Effect of Modifying the Treatment Gap Used to Define Discontinuation on the Discontinuation of Secondary Prevention Medications in the Year After Discharge for Stroke or TIA

| Secondary prevention medication | Treatment Gap to Define Discontinuation | | |
|---|---|------------------|-------------------|
| | 60 days n (%) | 90 days n (%) | 180 days n (%) |
| Antihypertensive (N= 7789) | | | |
| Discontinued | 1966 (25.2) | 1624 (20.9) | 1262 (16.2) |
| Median days to discontinuation after discharge (Q1, Q3) | 151 (82, 246) | 152 (81, 246.5) | 149 (80, 241) |
| Antithrombotic (N=7112) | | | |
| Discontinued | 2728 (38.4) | 2426 (34.1) | 2001 (28.1) |
| Median days to discontinuation after discharge (Q1, Q3) | 146 (112, 238.5) | 146 (112, 239) | 140 (112, 233) |
| Lipid-lowering (N= 7194) | | | |
| Discontinued | 2398 (33.3) | 2053 (28.5) | 1660 (23.1) |
| Median days to discontinuation after discharge (Q1, Q3) | 123 (57, 223) | 125 (57, 226) | 123.5 (56, 223) |

Q1 denotes 25th percentile; and Q3, 75th percentile.

Table e-9: Multivariable Model of Factors Associated with the Discontinuation of Antithrombotic Medications, Excluding Aspirin, in the Year After Discharge for Stroke or TIA

| | Multivariable Competing Risks Regression n= 5658 |
|---|--|
| | SHR (95% CI) |
| Patient factors | |
| Female | 1.06 (0.96-1.18) |
| Age, per 10-year increase | 0.89 (0.86-0.92) |
| Concession card holder | 0.79 (0.71-0.88) |
| Use of medication prior to admission | 0.70 (0.60-0.81) |
| Type of stroke | |
| Ischemic stroke | [Reference] |
| TIA | 1.25 (0.99-1.57) |
| Undetermined stroke | 1.41 (1.15-1.73) |
| Unable to walk on admission | 0.98 (0.89-1.08) |
| Acute-care factors | |
| Discharged directly home | 1.09 (0.95-1.24) |
| Primary-care factors | |
| Quarterly contact with primary-care physician | 0.68 (0.62-0.75) |
| Received chronic disease management plan | 0.83 (0.72-0.95) |
| Same primary-care physician prescribed $\geq 90\%$ of medications | 0.70 (0.55-0.88) |
| Prescribed by specialist physician | 1.08 (0.97-1.21) |

SHR denotes sub-distribution hazard ratio; CI, confidence interval; TIA, transient ischaemic attack.

^a Adjusted for factors shown, as well as year of hospital discharge and death as a competing risk for medication discontinuation.

Table e-10: Multivariable Model of Factors Associated with Discontinuation of Secondary Prevention Medications After Stroke or TIA, Among Incident Users of Each Class of Medication

| | Multivariable Competing Risks Regression ^a | | |
|--|---|--|---------------------------|
| | Antihypertensive n= 2436 | Antithrombotic ^b n= 5197 | Lipid-Lowering n= 4112 |
| | SHR (95% CI) | SHR (95% CI) | SHR (95% CI) |
| Patient factors | | | |
| Female | 0.97 (0.79-1.18) | 1.07 (0.95-1.20) | 1.22 (1.11-1.34) |
| Age, per 10-year increase | 0.98 (0.92-1.05) | 0.84 (0.81-0.88) | 0.97 (0.93-1.01) |
| Concession card holder | 1.00 (0.88-1.13) | 0.82 (0.73-0.92) | 0.60 (0.54-0.67) |
| Type of stroke | | | |
| Intracerebral hemorrhage | [Reference] | ... | ... |
| Ischemic stroke | 1.08 (0.84-1.39) | [Reference] | [Reference] |
| TIA | 1.14 (0.81-1.60) | 1.31 (1.10-1.55) | 1.41 (1.26-1.59) |
| Undetermined stroke | 1.55 (0.84-2.87) | 1.60 (1.28-1.99) | 0.99 (0.58-1.69) |
| Unable to walk on admission | 1.05 (0.86-1.29) | 1.00 (0.92-1.08) | 0.96 (0.82-1.12) |
| Acute-care factors | | | |
| Prescribed antihypertensive at discharge | 0.79 (0.70-0.90) | ... | ... |
| Discharged directly home | 1.06 (0.91-1.23) | 1.33 (1.21-1.47) | 1.20 (1.05-1.36) |
| Primary-care factors | | | |
| Quarterly contact with primary-care physician | 0.79 (0.70-0.90) | 0.78 (0.71-0.86) | 0.69 (0.62-0.78) |
| Received chronic disease management plan | 0.97 (0.81-1.16) | 0.87 (0.75-0.99) | 0.92 (0.84-1.01) |
| Same primary-care physician prescribed \geq 90% of medications | 0.91 (0.79-1.06) | 0.77 (0.64-0.93) | 0.69 (0.61-0.77) |
| Prescribed by specialist physician | 1.03 (0.86-1.23) | 0.87 (0.77-0.98) | 0.86 (0.76-0.97) |

SHR=sub-distribution hazard ratio; CI=confidence interval.

^a Adjusted for factors shown in each model, as well as year of discharge and death as a competing risk for medication discontinuation.

Table e-11: Multivariable Model of Factors Associated with the Discontinuation of Secondary Prevention Medications in the Year After Discharge for Stroke or TIA, among those with complete prescription data^a

| | Multivariable Competing Risks Regression ^b | | |
|--|---|--------------------------------------|--------------------------------------|
| | Antihypertensive Medication n= 7257 | Antithrombotic Medication n= 6632 | Lipid-Lowering Medication n= 6546 |
| | SHR (95% CI) | SHR (95% CI) | SHR (95% CI) |
| Patient factors | | | |
| Female | 0.95 (0.86-1.05) | 1.03 (0.92-1.15) | 1.20 (1.09-1.32) |
| Age, per 10-year increase | 1.00 (0.95-1.06) | 0.85 (0.82-0.88) | 1.01 (0.97-1.05) |
| Concession card holder | 0.96 (0.84-1.10) | 0.83 (0.72-0.95) | 0.60 (0.52-0.69) |
| Use of medication prior to admission | 0.44 (0.40-0.49) | 0.47 (0.39-0.55) | 0.46 (0.40-0.52) |
| Type of stroke | | | |
| Intracerebral hemorrhage | [Reference] | ... | ... |
| Ischemic stroke | 1.08 (0.92-1.28) | [Reference] | [Reference] |
| TIA | 1.14 (0.89-1.46) | 1.31 (1.11-1.55) | 1.26 (1.12-1.41) |
| Undetermined stroke | 1.29 (0.90-1.85) | 1.60 (1.32-1.94) | 1.16 (0.80-1.67) |
| Unable to walk on admission | 1.10 (0.99-1.23) | 1.00 (0.92-1.10) | 0.98 (0.87-1.10) |
| Acute-care factors | | | |
| Prescribed antihypertensive at discharge | 0.71 (0.62-0.80) | ... | ... |
| Discharged directly home | 1.08 (0.96-1.20) | 1.22 (1.10-1.34) | 1.14 (1.01-1.29) |
| Primary-care factors | | | |
| Quarterly contact with primary-care physician | 0.60 (0.54-0.66) | 0.71 (0.64-0.78) | 0.64 (0.58-0.70) |
| Received chronic disease management plan | 0.95 (0.87-1.04) | 0.89 (0.77-1.02) | 0.89 (0.82-0.96) |
| Same primary-care physician prescribed ≥90% of medications | 0.79 (0.65-0.97) | 0.72 (0.62-0.85) | 0.67 (0.59-0.75) |
| Prescribed by specialist physician | 0.87 (0.76-0.99) | 0.89 (0.80-0.98) | 0.90 (0.81-0.99) |

SHR denotes sub-distribution hazard ratio; CI, confidence interval; TIA, transient ischaemic attack.

^a Patients with complete prescription data include long-term concession card holders (i.e. ≥90% of all scripts filled with concession claim) or those discharged on or after July 1 2012. ^b Adjusted for factors shown, as well as death as a competing risk for medication discontinuation.

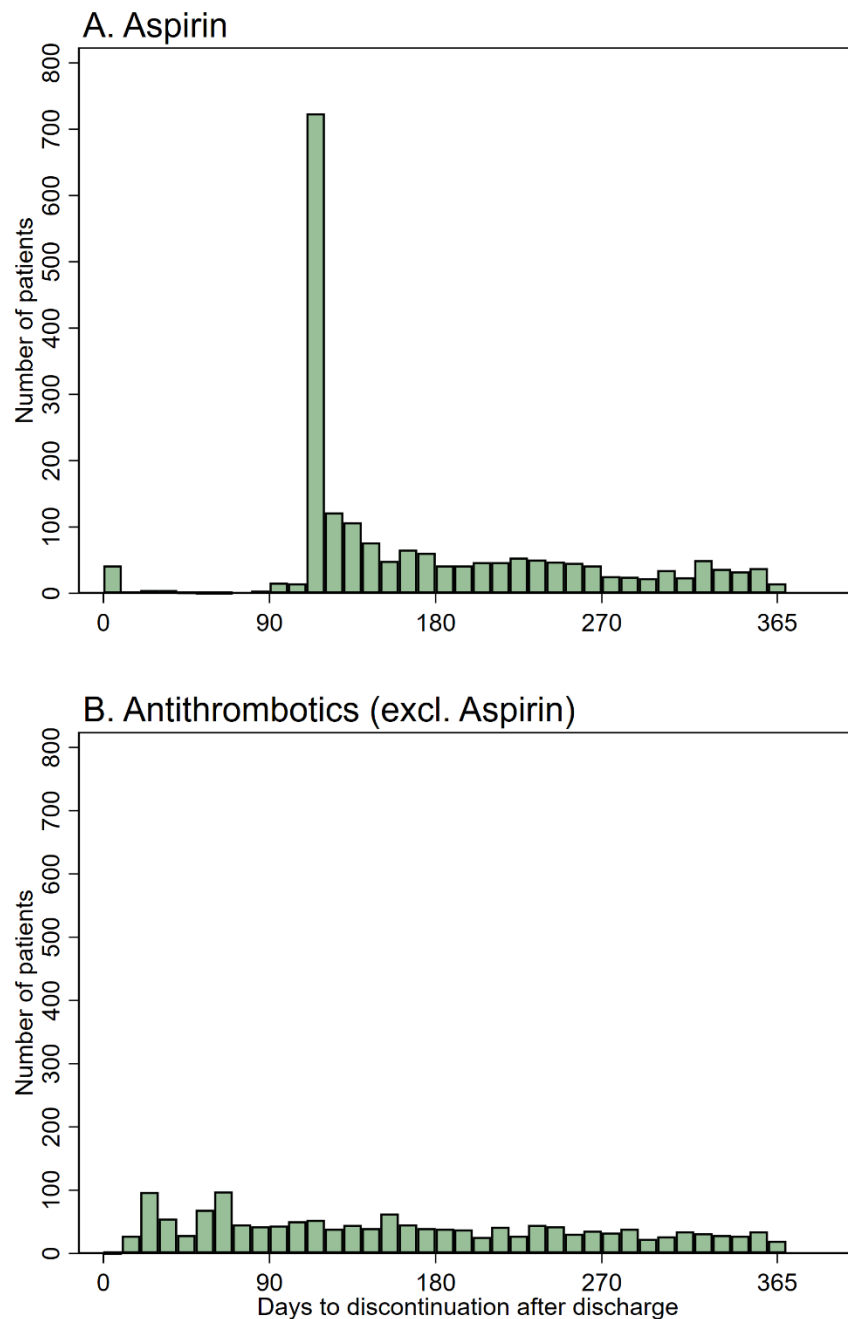


Figure e-1 Days to Discontinuation of Aspirin or Other Antithrombotic Medication Within One Year of Discharge Following Stroke or TIA

Histograms displaying the frequency distribution of time (in days) to discontinuation of: A) aspirin (median: 136 days; interquartile range [IQR]: 112-227 days); or B) other antithrombotic medications (median: 152 days; IQR: 70-247.5 days). Wilcoxon Signed-Rank Tests used to compare time to discontinuation of aspirin and other antithrombotic medications ($P < 0.001$ for comparison).