**Supplemental Materials:** Estimating the number hospital or emergency department presentations for stroke in Canada

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**Supplemental Tables:**

**Supplemental Table 1.** Estimated number of stroke events resulting in an emergency department presentation only from Alberta and Ontario in the 2017 fiscal year broken down by information stroke type and query diagnosis status.

**Supplemental Table 2.** Estimated number of stroke events resulting in hospital or emergency department presentation in the 2017 fiscal year broken down by information source and stroke type excluding patients with only an emergency department presentation and a query diagnosis type.

**Supplemental Table 3.** Estimated number of stroke events resulting in hospital or emergency department presentation in the 2017 fiscal year broken down by information source and stroke type using the alternative definition of stroke including stroke in the first diagnostic position only

**Supplemental Table 4.** Estimated number of stroke events resulting in hospital or emergency department presentation in the 2017 fiscal year broken down by information source and stroke type using the alternative definition of stroke including stroke in the first two diagnostic positions

**Supplemental Table 5.** Estimated number of stroke events resulting in hospital or emergency department presentation in the 2017 fiscal year broken down by information source and stroke type using the alternative linkage definition with shorter time windows considered for record linkage (≤24 hours from separation from ED and ≤14 days from separation from hospital)

**Supplemental Table 1.** Estimated number of stroke events resulting in an emergency department presentation only from Alberta and Ontario in the 2017 fiscal year broken down by information stroke type and query diagnosis status.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Diagnosis Type** | **Ischemic Stroke** | **Sub-Arachnoid Hemorrhage** | **Intracerebral Hemorrhage** | **Transient Ischemic Attack** | **Total** |
| Non-Query | 4,716 | 332 | 678 | 8,162 | 13,888 |
| Query | 4,085 | 190 | 158 | 7,620 | 12,053 |
| Total | 8,801 | 522 | 836 | 15,782 | 25,941 |

**Supplemental Table 2.** Estimated number of stroke events resulting in hospital or emergency department presentation in the 2017 fiscal year broken down by information source and stroke type excluding patients with only an emergency department presentation and a query diagnosis type.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Record Source** | **Ischemic Stroke** | **Sub-Arachnoid Hemorrhage** | **Intracerebral Hemorrhage** | **Transient Ischemic Attack** | **Total** |
| ***Events Resulting in Hospital Admission*** | | | | | |
| DAD (outside of Alberta & Ontario) | 10,493 | 672 | 1,705 | 2,710 | 15,580 |
| DAD Only (Alberta & Ontario) | 3,419 | 250 | 965 | 425 | 5,059 |
| DAD & NACRS (Alberta & Ontario) | 14,505 | 869 | 1,916 | 2,925 | 20,215 |
| Quebec Hospitalization Volumes | 9,199 | 689 | 1,396 | 2,219 | 13,503 |
| ***Events with an ED Visit Only (query diagnosis type excluded)*** | | | | | |
| NACRS Only (Alberta & Ontario) | 4,716 | 332 | 678 | 8,162 | 13,888 |
| NACRS Only projections for the remainder of the country | 5,190 | 360 | 741 | 9,013 | 15,304 |
| **Grand Total** | 47,522 | 3,172 | 7,401 | 25,454 | 83,549 |

**Supplemental Table 3.** Estimated number of stroke events resulting in hospital or emergency department presentation in the 2017 fiscal year broken down by information source and stroke type using the alternative definition of stroke including stroke in the first diagnostic position only

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Record Source** | **Ischemic Stroke** | **Sub-Arachnoid Hemorrhage** | **Intracerebral Hemorrhage** | **Transient Ischemic Attack** | **Total** |
| ***Events Resulting in Hospital Admission*** | | | | | |
| DAD (outside of Alberta & Ontario) | 9,504 | 626 | 1,387 | 2,686 | 14,203 |
| DAD Only (Alberta & Ontario) | 3,213 | 229 | 865 | 420 | 4,727 |
| DAD & NACRS (Alberta & Ontario) | 14,122 | 849 | 1,737 | 2,922 | 19,630 |
| Quebec Hospitalization Volumes (estimated) | 8,688 | 656 | 1,214 | 2,207 | 12,765 |
| ***Events with an ED Visit Only*** | | | | | |
| NACRS Only (Alberta & Ontario) | 8,783 | 521 | 834 | 15,783 | 25,921 |
| NACRS Only projections for the remainder of the country | 9,609 | 554 | 908 | 17,319 | 28,390 |
| **Grand Total** | 53,919 | 3,435 | 6,945 | 41,337 | 105,636 |

**Supplemental Table 4.** Estimated number of stroke events resulting in hospital or emergency department presentation in the 2017 fiscal year broken down by information source and stroke type using the alternative definition of stroke including stroke in the first two diagnostic positions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Record Source** | **Ischemic Stroke** | **Sub-Arachnoid Hemorrhage** | **Intracerebral Hemorrhage** | **Transient Ischemic Attack** | **Total** |
| ***Events Resulting in Hospital Admission*** | | | | | |
| DAD (outside of Alberta & Ontario) | 10,571 | 690 | 1,645 | 2,834 | 15,570 |
| DAD Only (Alberta & Ontario) | 3,600 | 262 | 975 | 523 | 5,360 |
| DAD & NACRS (Alberta & Ontario) | 14,392 | 868 | 1,845 | 3,031 | 20,137 |
| Quebec Hospitalization Volumes (estimated) | 9,246 | 700 | 1,359 | 2,339 | 13,645 |
| ***Events with an ED Visit Only*** | | | | | |
| NACRS Only (Alberta & Ontario) | 10,278 | 746 | 1,011 | 17,845 | 29,880 |
| NACRS Only projections for the remainder of the country | 11,225 | 783 | 1,098 | 19,555 | 32,661 |
| **Grand Total** | 59,312 | 4,049 | 7,933 | 46,127 | 117,253 |

**Supplemental Table 5.** Estimated number of stroke events resulting in hospital or emergency department presentation in the 2017 fiscal year broken down by information source and stroke type using the alternative linkage definition with shorter time windows considered for record linkage (≤24 hours from separation from ED and ≤14 days from separation from hospital)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Record Source** | **Ischemic Stroke** | **Sub-Arachnoid Hemorrhage** | **Intracerebral Hemorrhage** | **Transient Ischemic Attack** | **Total** |
| ***Events Resulting in Hospital Admission*** | | | | | |
| DAD (outside of Alberta & Ontario) | 15,537 | 675 | 1,712 | 2,721 | 15,645 |
| DAD Only (Alberta & Ontario) | 3,486 | 265 | 974 | 440 | 5,154 |
| DAD & NACRS (Alberta & Ontario) | 14,537 | 870 | 1,14 | 2,930 | 20,252 |
| Quebec Hospitalization Volumes (estimated) | 10,864 | 696 | 818 | 2,230 | 14,608 |
| ***Events with an ED Visit Only*** | | | | | |
| NACRS Only (Alberta & Ontario) | 8,926 | 526 | 848 | 16,012 | 26,311 |
| NACRS Only projections for the remainder of the country | 9,767 | 559 | 924 | 17,570 | 28,820 |
| **Grand Total** | 63,117 | 3,591 | 5,276 | 41,903 | 110,790 |