**Table S2.** Information about variables derived from administrative data.

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| --- |
| **Components of the primary outcome** |
| ***Interventions***  |
| Inpatient and same day surgery hospitalizations;code may be recorded in any position | **The Canadian Classification of Diagnostic, Therapeutic and Surgical Procedure - Until 2001** | **The Canadian Classification of Health Interventions - Starting in 2002** |
| ***PCI***at least one inpatient or same-day surgery record (from CIHI/DAD/SDS\*) | 48.02, 48.03, 48.09  | 1IJ50, 1IJ57 |
| ***CABG*** at least one inpatient or same-day surgery record (from CIHI/ DAD/SDS\*) | 48.11 to 48.19 (48.1)  | 1IJ76  |
| **Diseases** |
| **Diseases**  | **ICD-9-CM diagnostic codes**(prior to fiscal year 2002 and) | **ICD-10-CA code** (after fiscal year 2002) | **OHIP codes\***  |
| **CV events (primary outcome)** |
| ***Hospitalization due to exacerbation of CHF***most responsible or secondary, including pre-admit comorbidity, discharge diagnosis of CHF in CIHI/DAD | 428.x | I50  |  |
| ***AMI*** most responsible diagnosis of AMI in the CIHI/DAD database | 410.x | I21 |  |
| ***Stroke*** most responsible diagnosis of stroke in the CIHI/DAD database | **Acute stroke**: 362.3, 430.x, 431.x, 433.x1, 434.x1, 436, 435.x**Subgroups**:**Ischemic stroke** (includes acute but ill-defined cerebrovascular): 362.3, 433.x1, 434.x1, 436 **Subarachnoid hemorrhage**: 430.x**Intracerebral hemorrhage**: 431.x**Transient cerebral ischemia**: 435.x  | ***Acute stroke***: I60 (excl I60.8); I61; I63 (excl I63.6); I64; H34.1 G45 (excl G45.4) **Subgroups**:**Ischemic stroke** (includes acute but ill-defined cerebrovascular): I63 (excl 163.6), I64, H34.1**Subarachnoid hemorrhage**: I60 (excl I60.8)**Intracerebral hemorrhage**: I61**Transient ischemic attack**: G45 (excl G45.4)  |  |
| **All-causes mortality**from RPDB, Demographic | the date of the ***death from all-causes***  |  |  |
| **Main exposures or risk factors and other potential confounders**  |
| ***Prior AMI*** Any diagnosis of AMI in CIHI/DAD or OHIP associated with ED visits | 410.x, 412.x | I21, I22, I25.2  | 410, 412  |
| ***Prior stroke*** Any diagnosis of stroke in CIHI/DAD or OHIP associated with ED visits | 362.3, 430.x, 431.x, 433.x1, 434.x1, 436, 435.x | I60 (excl I60.8); I61; I63 (excl I63.6); I64; H34.1 G45 (excl G45.4)  | 432, 435, 436  |
| ***Prevalent hypertension***  | Diagnostic dates from HIPERTENSION database |  |  |
| ***Prevalent CHF***  | Diagnostic dates from Ontario CHF database |  |  |
| ***Prevalent diabetes***  | Diagnostic dates from ODD |  |  |
| ***Prevalent COPD***  | Diagnostic date from COPD\_SENSITIVE2010 |  |  |
| ***Prior depression***hospitalizations where the most responsible diagnosis is major depression from CIHI/DAD, and from OHIP dataset | 296.2, 296.3, 296.5, 300.4, 309.x, 311 | F20.4, F31.3-F31.5, F32.x, F33.x, F34.1, F41.2, F43.2 | depression (311) reactive depression (300) |
| ***Prevalent cancer***  | Diagnostic dates from OCRD |  |  |
| **Urban/rural status**  | ***Urban/rural status*** at time of index diagnostic sleep study, from %getdemo |  |
| **Income**based on the patient’s postal code and Statistics Canada Postal Code Conversion File | Ontario neighbourhood income are classified into one of five approximately equal-sized groups (quintiles), ranked from poorest (Q1) to wealthiest (Q5) |  |
| **CPAP claims**from ADP, from Apr 2004 to the last date of follow-up  | Types of device prescribed were CONTINUOUS PAP SYSTEM or "RESMED S8 COMPACT CPAP SYSTEM" or "RESMED S8 ELITE CPAP SYSTEM". |  |  |

**List of datasets used**: The Registered Persons Database (RPDB), Canadian Institute for Health Information Discharge Abstract database (CIHI-DAD) and the Same Day Surgery (CIHI-SDS), Ontario Health Insurance Plan Physician Services Claims database (OHIP), NACRS - National Ambulatory Care Reporting System, the Ontario Diabetes Database (ODD), HYPERTENSION, Ontario Congestive Heart Failure database (CHF), Ontario Chronic Obstructive Pulmonary Disease database, Ontario Mental Health Reporting System (OMHRS) stand-alone admissions dataset, Ontario Cancer Registry Data (OCRD), Ontario Registrar General Death (ORGD) data, Assistive Devices Program dataset (ADP).

AMI – acute myocardial infarction, CABG - coronary artery bypass graft surgery; CHF – chronic heart failure; COPD – chronic obstructive pulmonary disease; CPAP – continuous positive airway pressure; PCI - percutaneus coronary intervention