Appendix 1

Supplemental Table 1: Cohort Selection

Step	N	Description
1	140,733	All incident cases of dementia (according to the Dementia algorithm and RAIHC/CCRS) between 1 Jan 2010 and 31 Dec 2012
2	132,479	Exclude those with 65>age>105 or missing sex
5	132,432	Exclude those with a death date before their dementia diagnosis
6	130,566	Exclude those who were ineligible on dementia diagnosis (index) date, those ineligible at any time before death or before end of 5 year follow up
7	109,909	Exclude those with incident LTC admission prior to dementia diagnosis date
8	109,238	Exclude those with incident LTC admission on dementia diagnosis date
9	108,757	Exclude those with missing rurality and income quintile

Appendix to: Huyer G, Brown CRL, Spruin S, et al. Five-year risk of admission to long-term care home and death for older adults given a new diagnosis of dementia: a population-based retrospective cohort study. *CMAJ* 2020. doi: 10.1503/cmaj.190999.

Supplemental Table 2: Variables and databases used in the study

Variable	Database
Age	Registered Persons Database
Sex	Registered Persons Database
Death date	Registered Persons Database
Income Quintile	Postal codes from Registered Persons Database linked to Statistics Canada Census Data
Residential Setting	Registered Persons Database
Primary Care Model	Client Agency Program Enrolment Database
Chronic Conditions	Refer to Supplemental Table 2
Dementia Diagnosis	Canadian Institute for Health Information – Discharge Abstract Database, Ontario Health Insurance Plan, Ontario Drug Benefit Database, Resident Assessment Instrument – Home Care database, and the Continuing Care Reporting System
All-Cause Mortality	Registered Persons Database

Supplemental Table 3: Ontario Health Insurance Plan (OHIP), International Classification of Diseases, Version 9 (ICD-9), and Version 10 (ICD-10) diagnostic codes for categorization of comorbidities.

Condition [reference for validated algorithm]	**ICD 9 / OHIP**	**ICD 10**	**ODB***
Acute Myocardial Infarction (AMI) [1]	410	I21, I22	
Osteo- and other Arthritis: (A) Osteoarthritis (B) Other Arthritis (includes Synovitis, Fibrositis, Connective tissue disorders, Ankylosing spondylitis, Gout Traumatic arthritis, pyogenic arthritis, Joint derangement, Dupuytren's contracture, Other MSK disorders)	 715 727, 729, 710, 720, 274, 716, 711,718, 728, 739	 M15-M19 M00-M03, M07, M10, M11-M14, M20-M25, M30-M36, M65-M79	
Arthritis - Rheumatoid arthritis [2]	714	M05-M06	
Asthma [3]	493	J45	
(all) Cancers	140-239	C00-C26, C30-C44, C45-C97	
Cardiac Arrhythmia	427 (OHIP) / 427.3 (DAD)	I48.0, I48.1	
Congestive Heart Failure [4]	428	I500, I501, I509	
Chronic Obstructive Pulmonary Disease [5]	491, 492, 496	J41, J43, J44	
Coronary syndrome (excluding AMI)	411-414	I20, I22-I25	
Dementia [6]	290, 331 (OHIP) / 046.1, 290.0, 290.1, 290.2, 290.3, 290.4, 294, 331.0, 331.1, 331.5, F331.82 (DAD)	F00, F01, F02, F03, G30	Cholinesterase Inhibitors
Diabetes [7]	250	E08-E13	
Hypertension [8]	401, 402, 403, 404, 405	I10, I11, I12, I13, I15	
Inflammatory Bowel Disease (IBD) [9]	555,556	K50, K51	

(Other) Mental Illnesses	291, 292, 295, 297, 298, 299, 301, 302, 303, 304, 305, 306, 307, 313, 314, 315, 319	F04, F050, F058, F059, F060, F061, F062, F063, F064, F07, F08, F10, F11, F12, F13, F14, F15, F16, F17, F18, F19, F20, F21, F22, F23, F24, F25, F26, F27, F28, F29, F340, F35, F36, F37, F430, F439, F453, F454, F458, F46, F47, F49, F50, F51, F52, F531, F538, F539, F54, F55, F56, F57, F58, F59, F60, F61, F62, F63, F64, F65, F66, F67, F681, F688, F69, F70, F71, F72, F73, F74, F75, F76, F77, F78, F79, F80, F81, F82, F83, F84, F85, F86, F87, F88, F89, F90, F91, F92, F931, F932, F933, F938, F939, F94, F95, F96, F97, F98	
Mood, anxiety, depression and other nonpsychotic disorders	296, 300, 309, 311	F30, F31, F32, F33, F34 (excl. F34.0), F38, F39, F40, F41,	

		F42, F43.1, F43.2, F43.8, F44, F45.0, F45.1, F45.2, F48, F53.0, F68.0, F93.0, F99	
Osteoporosis	733	M81, M82	
Renal failure	403, 404, 584, 585, 586, v451	N17, N18, N19, T82.4, Z49.2, Z99.2	
Stroke (excluding transient ischemic attack)	430, 431, 432, 434, 436	I60,I64	

NOTES:

- Abbreviations: DAD=Discharge Abstract Database; ICD = International Classification of Disease; ODB = Ontario Drug Benefit Claims database; OHIP = Ontario Health Insurance Plan Claims Database
- All available health administrative data (OHIP, DAD, ODB) prior to index is used to ascertain disease status, with the exception of AMI (1 year prior to index), Cancer (2 years), Mood Disorder (2 years) and Other Mental Illnesses (2 years) as these conditions are considered episodic
- *ODB prescription drug records are not available for the majority of persons under the age of 65
- AMI, Asthma, COPD, CHF, Dementia, Diabetes, Hypertension, IBD, and Rheumatoid Arthritis are based on validated case algorithms/ ICES cohorts (see 1-9 below, respectively). All other conditions required at least one diagnosis code recorded in acute care (DAD) or two diagnosis codes recorded in physician billings (OHIP) within a two-year period.

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