

Appendix 1: Diagnostic Definitions for Index Condition (Dementia) and Co-morbid Conditions

Chronic Condition	Diagnostic Code
<p>Dementia [Previous 5 years in DAD, OHIP, and previous 1 year ODB]</p>	<p>OHIP DXCODE: 290, 331, 797; OR</p> <p>CIHI ICD-9: 290.0, 290.1, 290.3, 290.4, 290.8, 290.9, 294.1, 294.8, 294.9, 331.0, 331.1, 331.2, 797; OR</p> <p>CIHI ICD-10: F00.0, F00.1, F00.2, F00.9, F01.0, F01.1, F01.2, F01.3, F01.8, F01.9, F02.0, F02.1, F02.2, F02.3, F02.4, F02.8, F03, F05.1, F06.5, F06.6, F06.8, F06.9, F09, G30.0, G30.1, G30.8, G30.9, G31.0, G31.1, R54; OR</p> <p>ODB: A cholinesterase inhibitor (donepezil, galantamine, or rivastigmine) in the past 1 year DIN: 02232043, 02232044, 02269457, 02269465, 02244298, 02244299, 02244300, 02244302, 02266717, 02266725</p>
<p>Anxiety and/or Depression [Previous 5 years in DAD, OHIP, ODB and OMHRS]</p>	<p>One or more hospitalizations with a diagnosis for depressive disorder, affective psychoses, neurotic depression or adjustment reaction: ICD-10-CA codes F31, F32, F33, F341, F38.0, F38.1, F41.2, F43.1, F43.2, F43.8, F53.0, F93.0 or with a diagnosis for an anxiety state, phobic disorders or obsessive-compulsive disorders: ICD-10-CA codes F40, F41.0, F41.1, F41.3, F41.8, F41.9, F42, F45.2 OR</p> <p>One or more hospitalizations with a diagnosis for anxiety disorders: ICD-10-CA codes F32, F341, F40, F41, F42, F44, F45.0, F45.1, F45.2, F48, F68.0, or F99 AND one or more prescriptions for an antidepressant or mood stabilizer: ATC codes N05AN01, N05BA, N06A OR</p> <p>One or more physician visits with a diagnosis for depressive disorder or affective psychoses: ICD-9-CM codes 296, 311 OR</p> <p>One or more physician visits with a diagnosis for anxiety disorders: ICD-9-CM code 300 AND one or more prescriptions for an antidepressant or mood stabilizer: ATC codes N05AN01, N05BA, N06A OR</p> <p>Three or more physician visits with a diagnosis for anxiety disorders or adjustment reaction: ICD-9-CM code 300, 309 OMHRS: Section Q, item 1Mood/anxiety = yes if f or g = 1, 2, or 3 on discharge assessment OR</p> <p>Substance abuse/ addictions:</p>

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	OMHRS Section Q, item 1 Mood/anxiety = yes if d= 1,2 or 3
Arthritis [Previous 5 years in DAD, NACRS, OHIP]	OHIP: 274, 446, 710, 711, 714, 715, 716, 718, 720, 727, 728, 729, 739 ICD-10: M05-M06, M15-M19, M07, M10, M11-M14, M30-36, M00-M03, M20-M25, M65-M79
Inflammatory Bowel Disease [Previous 5 years in DAD, NACRS and OHIP]	ICD10: K500, K501, K508-K515, K518, K519, M074, M075, M091, M092, K52 OHIP 555, 556, 564
Cancer [Since 1964]	Inclusion in Ontario Cancer Registry (OCR)
Chronic obstructive pulmonary disease [Previous 5 years]	From CIHI-DAD or CIHI-SDS, one of the following: ICD-9: 491, 492, 496 ICD-10: J41, J42, J43, J44 OR From OHIP, one of the following: Diagnostic code: 491, 492, 496
Congestive heart failure [Previous 5 years]	From CIHI-DAD, one of the following: ICD-9: 428 ICD-10 I50 OR From OHIP, 2 of the following within a one-year period: Diagnostic code: 428
Diabetes [Previous 5 years]	Ontario Diabetes Database, based on the following: From CIHI-DAD or CIHI-SDS, one of the following: ICD-9: 250 ICD-10: E10, E11, E13, E14 OR From OHIP, 2 diagnostic codes within 2 years or 1 fee code: Diagnostic code: 250 Fee code: Q040, K029, K045, K046
Upper Gastrointestinal Bleed [Previous 5 years in DAD]	ICD-10: K25.0, K25.2, K25.4, K25.6, K26.0, K26.2, K26.4, K26.6, K27.0, K27.2, K27.4, K27.6, K28.0, K28.2, K28.4, K28.6, K92.0, K92.1, K92.2
Hypertension [Previous 5 years]	Ontario Hypertension Database: case-definition algorithm of 2 physician billing claims or 1 hospital discharge with a diagnosis of hypertension in a 2-year period that had the following diagnostic

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	codes: I10.x, I11.x, I12.x, I13.x, or I15.x
<p>Ischemic Heart Disease [Previous 5 years in DAD and OHIP]</p>	<p>ICD-10: I20-I25 CCP: 4802, 4803, 4809, 481 CCI: 1IJ50, 1IJ57GQxx, , 1IJ76</p> <p>Or having two physician billings within a one-year period with one of the billings by a specialist or a family physician in a hospital or emergency room setting) or a hospital discharge abstract.</p> <p>OHIP: 410, 412, 413, R742, R743, Z434, G298</p>
<p>Liver disease [Previous 5 years in DAD and SDS]</p>	<p>Mild: ICD-10 codes (starting with) B18, K700-K703, K709, K713-K715, K717, K73, K74, K760, K762-K764, K768, K769, Z944 Moderate/Severe: ICD-10 codes (starting with) I850, I859, I864, I982, K704, K711, K721, K729, K765, K766, K767</p>
<p>Osteoporosis/ Osteopenia [Previous 5 years in DAD, SDS, NACRS, and ODB]</p>	<p>One of hip, wrist, spine, shoulder, or pelvis fracture OR osteoporosis treatment</p> <p>Hip Fx: S72.0, S72.1, S72.2, S72.3 With external code: W00---W10, W18 or W19 Wrist Fx: S52.x W00---W10, W18 or W19 Spine Fx: S22.0, S22.1, S22.2, S22.3, S22.4, S32.0, S32.2, T08.xx W00---W10, W18 or W19 Shoulder Fx: S42.2 W00---W10, W18 or W19 Pelvis: S32.1, S32.3, S32.4, S32.5, S32.7, S32.8 W00---W10, W18 or W19 Must contain both an external cause of injury code indicating fracture was due to a minor fall AND a diagnosis code of fracture. For inpatient and same day surgery records, the hip/wrist/spine/shoulder/pelvis fracture diagnosis must be the most responsible diagnosis. For ED records, the hip/wrist/spine/shoulder/pelvis fracture diagnosis must be one of the first 3 diagnoses (dx10code1 – dxcode3)</p> <p>Exclude the fracture if the record contains any diagnosis code starting</p>

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	with 'V' (motor vehicle accident). Exclude anyone who had a hospital diagnosis (any dxtype) of ICD-10 code: G40, G41 or cancer during the fiscal year of the fracture or during either of the two preceding fiscal years
Renal Disease [Previous 5 years in DAD and OHIP]	Any 2 codes within 90 days of one another: With Chronic Dialysis: OHIP: R849, R850, G323, G325, G326, G330, G331, G860, G333, G083, G091, G085, G295, G082, G090, G092, G093, G094, G861, G862, G863, G864, G865, G866, G294, G095, G096 CCP: 51.95, 66.98 CCI: 1PZ21HQBR, 1PZ21HPD4 Any of following ICD10 codes or OHIP codes: Without Chronic Dialysis: dx10code= E102, E112, E132, E142, I12, I13, N08, N18, N19), or OHIP DXCODE in (403, 585)
Stroke [Previous 5 years in DAD]	At least one hospitalization (DAD) for stroke – in any diagnosis field G45 (excl. G45.4), H34.0, H34.1, I60 (excl. I60.8), I61, I63 (excl. I63.6), I64
Cerebrovascular disease (not stroke) [Previous 5 years in DAD and SDS]	G45, G46, H340, I60-I69

CIHI: Canadian Institute for Health Information

DAD: Discharge Abstract Database

DXCODE: Diagnostic code

ICD-9: International Classification of Disease, version 9

ICD-10: International Classification of Disease, version 10

ODB: Ontario Drug Benefit Plan

OHIP: Ontario Health Insurance Plan

OMHRS: Ontario Mental Health Reporting System

NACR: National Ambulatory Care Reporting System

SDS: Same Day Surgery (derived from NACRS)