



## Ministry of Health

### BC Chronic Disease and Selected Procedure Case Definitions

**Author:** Chronic Disease Information Working Group

**Date Created:** June 29, 2015

**Last Updated:** February 01, 2018

**Version:** v2016

**Email:** [hlth.cdrwg@gov.bc.ca](mailto:hlth.cdrwg@gov.bc.ca)

## **GLOSSARY**

### **Cumulative Prevalence**

It is also known as Prevalence for Life. Cases meet case definition criteria to qualify in a given year, and are then carried forward to show as a case every year thereafter. This measure is helpful for determining prevalence related to life-long chronic disease, but less useful for conditions that may be episodic (e.g., mood disorders, substance use problem, etc.).

### **Episodic Prevalence**

Cases meet case definition criteria to qualify in a given year, and are then carried forward in all subsequent years with at least one condition-related code including ICD diagnostic codes, procedure codes or drugs in any specific year.

### **Annual Prevalence**

Cases meet case definition criteria to qualify in each given year. Can be used as a quality measure to understand how it compares to cumulative prevalence or how it behaves over time.

### **Annual Service Utilization Prevalence**

Cases meet case definition criteria in a given year by virtue of one hospital diagnosis (MRDX) or one physician claim with diagnosis (first position only). Cases are not carried forward from year to year. This utilization prevalence measure is useful for describing the number of people or proportion of the population using services directly related to the disease.

### **Annual Prevalence with 365 Days follow-up**

Cases meet case definition criteria to qualify in each given year with complete 365 days follow-up time. Can be used as a quality measure to understand how it compares to cumulative prevalence or how it behaves over time.

## CASE DEFINITION – OSTEOPOROSIS WITH FRACTURE - EPISODIC

Case Definition Type: Cumulative Prevalence  Episodic Prevalence  Annual Prevalence  Annual Service Utilization Prevalence   
 Annual Prevalence with 365 Days Follow-up

**Case Definition:** The case definition for Osteoporosis requires one hospitalization or two physician visits in one year with diagnostic code(s) and fracture(s) as specified below; or two or more prescriptions in one year with drug code(s) and fracture(s) as specified below, and then, for subsequent years, one hospitalization or medical visit or one prescription to re-qualify. The case definition applies to persons aged 50 and older.

Signed-off BC Case Definition: Yes  - V2016 No

**Algorithm:** 1H or 2P or 2+Rx in 1Y with ICD code(s) or drug code(s) and fracture(s) as listed below, then 1P or 1H (all fields) or 1Rx to re-qualify. (Episodic – see “Case Definition” above.)

Notes: None

Age Restriction: Age 50 +

Data Source(s):

Data Source	ICD Code/Procedure Code/Rx	ICD Code/Procedure Code Position	Diagnosis Type	Hospital Care Level
Hospital ICD-10	M80, M81, M82	First Position Only <input type="checkbox"/> All Positions <input checked="" type="checkbox"/> Others <input type="checkbox"/> N/A <input type="checkbox"/>	M-Most Responsible Diagnosis <input checked="" type="checkbox"/> 1-Pre-Admit Comorbidity <input checked="" type="checkbox"/> 2-Post-Admit Comorbidity <input checked="" type="checkbox"/> 3-Secondary Diagnosis <input checked="" type="checkbox"/> 4-Morphology Code <input checked="" type="checkbox"/> 5-Admitting Diagnosis <input checked="" type="checkbox"/> 6-Proxy Most Responsible Diagnosis <input checked="" type="checkbox"/> 9-External Cause of Injury Code <input checked="" type="checkbox"/> 0-Newborn <input checked="" type="checkbox"/> W,X,Y- Service Transfer Diagnosis <input checked="" type="checkbox"/>	Acute Care <input checked="" type="checkbox"/> Rehabilitation <input checked="" type="checkbox"/> Day Surgery <input checked="" type="checkbox"/>
Hospital ICD-9	733.0	First Position Only <input type="checkbox"/> All Positions <input checked="" type="checkbox"/> Others <input type="checkbox"/> N/A <input type="checkbox"/>	M-Most Responsible Diagnosis <input checked="" type="checkbox"/> 1-Pre-Admit Comorbidity <input checked="" type="checkbox"/> 2-Post-Admit Comorbidity <input checked="" type="checkbox"/> 3-Secondary Diagnosis <input checked="" type="checkbox"/> 4-Morphology Code <input checked="" type="checkbox"/> 5-Admitting Diagnosis <input checked="" type="checkbox"/> 6-Proxy Most Responsible Diagnosis <input checked="" type="checkbox"/>	Acute Care <input checked="" type="checkbox"/> Rehabilitation <input checked="" type="checkbox"/> Day Surgery <input checked="" type="checkbox"/>

			9-External Cause of Injury Code <input checked="" type="checkbox"/> 0-Newborn <input checked="" type="checkbox"/> W,X,Y- Service Transfer Diagnosis <input checked="" type="checkbox"/>	
Physician Claims ICD-9	733	First Position Only <input type="checkbox"/> All Positions <input checked="" type="checkbox"/> Others <input type="checkbox"/> N/A <input type="checkbox"/>	N/A	N/A
PharmaNet Drug History	See drug list	N/A	N/A	N/A

Diagnostic Code:

ICD-9/10	Description/Algorithm
M80	Osteoporosis with pathological fracture
M81	Osteoporosis without pathological fracture
M82	Osteoporosis in diseases classified elsewhere
733	Other disorders of bone and cartilage
733.0	Osteoporosis
<b>Wrist and Forearm Fractures</b>	1H or 1P, Age >=50, fracture codes occurring 2+ months apart are assumed to be for new fractures
S42.2	Fracture of upper end of humerus
S52	Fracture of forearm
812.0X, 812.1X	Fracture of humerus
813.X	<b>Fracture of radius and ulna with the following fee items code(s)</b>
51016 (MSP Fee Item)	cast - short arm
54701 (MSP Fee Item)	Closed reduction without GA
54702 (MSP Fee Item)	Closed reduction with GA
54703 (MSP Fee Item)	Closed reduction, external or percutaneo
54705 (MSP Fee Item)	ORIF
54715 (MSP Fee Item)	Carpal bone fracture(scaphoid) - open reduction
54721 (MSP Fee Item)	Carpus-dislocation-w/wo fracture-closed reduction
54722 (MSP Fee Item)	Carpus - closed reduction/percutaneous fixation
54725 (MSP Fee Item)	Carpus - orif
<b>Spine Fracture</b>	1H or 1P, Age >=50, fracture codes occurring 6+ months apart are assumed to be for new fractures
S22.0	Fracture of thoracic vertebra
S22.1	Multiple fractures of thoracic spine
S32.0	Fracture of lumbar vertebra
S32.7	Multiple fractures of lumbar spine and pelvis

805.X	Fracture of vertebral column without mention of spinal cord lesion
<b>Pelvis Fractures</b>	1H or 1P, Age >=50, fracture codes occurring 6+ months apart are assumed to be for new fractures
S32.1	Fracture of sacrum
S32.3	Fracture of ilium
S32.4	Fracture of acetabulum
S32.5	Fracture of pubis
S32.7	Multiple fracture of lumbar spine and pelvis
S32.8	Fracture of other parts of pelvis
808.X	Fracture of pelvis
<b>Hip Fractures</b>	1H or 1P, Age >=50, fracture codes occurring 6+ months apart are assumed to be for new fractures
S72.0	Fracture of head and neck of femur
S72.1	Pertrochanteric fracture
S72.2	Subtrochanteric fracture
820	Fracture of femur
<b>Exclusions*</b>	
Excluded fractures with motor vehicle external cause coded	
V01-V09	Pedestrian injured in transport accident
V10-V19	Pedal cyclist injured in transport accident
V20-V29	Motorcycle rider injured in transport accident
V30-V39	Occupant of three-wheeled motor vehicle injured in transport accident
V40-V49	Car occupant injured in transport accident
V59-V59	Occupant of pick-up truck or van injured in transport accident
V60-V69	Occupant of heavy transport vehicle injured in transport accident
V70-V79	Bus occupant injured in transport accident
V80-V89	Other land transport accidents
V90-V94	Water transport accidents
V95-V97	Air and space transport accidents
V98-V99	Other and unspecified transport accidents
E800-E807	Railway accidents
E810-E819	Motor vehicle traffic accidents
E820-E825	Motor vehicle non-traffic accidents
E826-E829	Other road vehicle accidents
E830-E838	Water transport accidents
E840-E845	Air and space transport accidents
E846-E848	Vehicle accidents not elsewhere classifiable

Pathological Fractures (excluded from exclusions)	
M80	Osteoporosis with pathological fracture
M80.0	Postmenopausal osteoporosis with pathological fracture to Include if present with (AND) fracture at one of the sites
M80.1	Postoophorectomy osteoporosis with pathological fracture to exclude if present (NOT)
M80.2	Osteoporosis of disuse with pathological fracture to exclude if present (NOT)
M80.3	Postsurgical malabsorption osteoporosis with pathological fracture to exclude if present (NOT)
M80.4	Drug-induced osteoporosis with pathological fracture to exclude present (NOT)
M80.5	Idiopathic osteoporosis with pathological fracture to Include if present with (AND) fracture at one of the sites
M80.8	Other osteoporosis with pathological fracture to Include if present with (AND) fracture at one of the sites
M80.9	Unspecified osteoporosis with pathological fracture to Include if present with (AND) fracture at one of the sites
733.1	Pathological fracture
733.10	Pathological fracture, unspecified site
733.11	Pathological fracture of humerus
733.12	Pathological fracture of distal radius
733.13	Pathological fracture of vertebrae
733.14	Pathological fracture of neck of femur
733.15	Pathological fracture of other specified
733.16	Pathological fracture of tibia and fibula
733.19	Pathological fracture of other specified

\* Excluded cases whose fractures occurred 3+ years (not including 3 years) prior to the first date of osteoporosis.

Excluded cases whose fractures occurred less than 3 years prior to the first date of osteoporosis, but were aged 50 or younger when the fractures occurred.

Excluded cases were identified as pathological fractures related to transport accidents (MVA) in the DAD or MSP records, in effect these fractures "episodes" were defined using the same windows applied to wrist, vertebral and hip fractures except the fractures that were coded as the pathological fractures listed above. Fractures occurring outside the episode window were considered new fractures and if they were not identified as pathological or MVA fractures they were included in these analyses.

Procedure Code: N/A

Drug List:

DIN	DRUGNAME	DIN	DRUGNAME
2401118	ACCEL-ALENDRONATE	2248625	FOSAMAX
2401126	ACCEL-ALENDRONATE	2276429	FOSAVANCE
2401134	ACCEL-ALENDRONATE	2314940	FOSAVANCE
2381478	ACH-ALENDRONATE	2270110	GEN-ALENDRONATE
2381486	ACH-ALENDRONATE	2286327	GEN-ALENDRONATE 40 MG TAB
2381494	ACH-ALENDRONATE	2245331	GEN-ETIDRONATE 400 MG TAB

2269198	ACLASTA	2385015	JAMP-ALENDRONATE
2258102	ACT ALENDRONATE	2385023	JAMP-ALENDRONATE
2258110	ACT ALENDRONATE	2385031	JAMP-ALENDRONATE
2263866	ACT ETIDROCAL	2368552	JAMP-RISEDRONATE
2248686	ACT ETIDRONATE	1992880	MIACALCIN 100 UNIT/ML AMPUL
2248687	ACT ETIDRONATE	1990926	MIACALCIN 50 UNIT/ML AMPUL
2358840	ACT RALOXIFENE	2144301	MIACALCIN INJECTION 200IU/ML
2408449	ACT ZOLEDRONIC ACID	2240775	MIACALCIN NASAL SPRAY 200 IU
2239146	ACTONEL	2394855	MINT-ALENDRONATE
2242518	ACTONEL	2394863	MINT-ALENDRONATE
2246896	ACTONEL	2394871	MINT-ALENDRONATE
2297787	ACTONEL	2270129	MYLAN-ALENDRONATE
2316838	ACTONEL	2286335	MYLAN-ALENDRONATE
2370417	ACTONEL DR	2247323	MYLAN-ETI-CAL CAREPAC
2279657	ACTONEL PLUS CALCIUM	2245330	MYLAN-ETIDRONATE
2299712	ALENDRONATE	2357984	MYLAN-RISEDRONATE
2302004	ALENDRONATE	2397773	MYLAN-RISEDRONATE
2343916	ALENDRONATE	2324199	NOVO-ETIDRONATECAL
2343924	ALENDRONATE	2358697	NTP-ETIDRONATE CALCIUM PACK
2352966	ALENDRONATE	2358883	NTP-RISEDRONATE
2352958	ALENDRONATE 40 MG TABLET	2358891	NTP-RISEDRONATE
2303043	ALENDRONATE-10 10 MG TABLET	2358905	NTP-RISEDRONATE
2303051	ALENDRONATE-40 40 MG TABLET	2427354	PENDO-RISEDRONATE
2303035	ALENDRONATE-5 5 MG TABLET	2282771	PHL-ALENDRONATE
2303078	ALENDRONATE-70	2309874	PHL-RISEDRONATE
2405717	ALENDRONATE-D3 70 MG-2800 UNIT	2273179	PMS-ALENDRONATE
2405725	ALENDRONATE-D3 70 MG-5600 UNIT	2284006	PMS-ALENDRONATE-FC
2248727	APO-ALENDRONATE	2358921	PMS-RALOXIFENE
2248728	APO-ALENDRONATE	2302209	PMS-RISEDRONATE
2248729	APO-ALENDRONATE	2424177	PMS-RISEDRONATE
2248730	APO-ALENDRONATE	2362414	PMS-RISEDRONATE PLUS CALCIUM
2454467	APO-ALENDRONATE/VITAMIN D3	2311046	PRO-CALCITONIN - 200
2454475	APO-ALENDRONATE/VITAMIN D3	2343541	PROLIA
2246058	APO-CALCITONIN INJECTABLE	2372304	Q-ALENDRONATE

2247585	APO-CALCITONIN NASAL SPRAY	2377446	Q-RISEDRONATE 35 MG TABLET
2276844	APO-ETIDRONATE	2415852	RALOXIFENE
2276852	APO-ETIDRONATE	2384698	RAN-ALENDRONATE
2279215	APO-RALOXIFENE	2384701	RAN-ALENDRONATE
2353687	APO-RISEDRONATE	2384728	RAN-ALENDRONATE
2377721	APO-RISEDRONATE	2275279	RATIO ALENDRONATE
2388545	AURO-ALENDRONATE	2319861	RATIO-RISEDRONATE
2388553	AURO-ALENDRONATE	2233022	RHO-CALCITONIN 200 UNIT/ML INJ
2406284	AURO-RISEDRONATE	2347474	RISEDRONATE
2406292	AURO-RISEDRONATE	2352141	RISEDRONATE
2406306	AURO-RISEDRONATE	2370239	RISEDRONATE
2442760	AURO-RISEDRONATE	2370247	RISEDRONATE
2365065	AVA-ALENDRONATE 10 MG TABLET	2370255	RISEDRONATE
2365073	AVA-ALENDRONATE 40 MG TABLET	2411407	RISEDRONATE-35
2365057	AVA-ALENDRONATE 5 MG TABLET	2270870	RIVA ALENDRONATE
2365081	AVA-ALENDRONATE 70 MG TABLET	2270889	RIVA ALENDRONATE
2364808	AVA-RISEDRONATE 30 MG TABLET	2341077	RIVA-RISEDRONATE
2364816	AVA-RISEDRONATE 35 MG TABLET	2288079	SANDOZ ALENDRONATE
2364794	AVA-RISEDRONATE 5 MG TABLET	2288087	SANDOZ ALENDRONATE
584703	CALCIMAR SOLUTION INJ 200UNIT/ML	2288095	SANDOZ ALENDRONATE
723428	CALCIMAR SOLUTION INJ 200UNIT/ML	2288109	SANDOZ ALENDRONATE
1926691	CALCIMAR SOLUTION INJ 200UNIT/ML	2429160	SANDOZ ALENDRONATE/CHOLECALCIFEROL
2383233	CALCITONIN (SALMON) INJECTION, BP	2327295	SANDOZ RISEDRONATE
2007134	CALTINE INJ 100 UNIT/ML (1ML AMP)	2261766	SANDOZ-CALCITONIN NS
1940376	CALTINE INJ 100UNIT/ML (0.5ML AMP)	2347938	SIG-ALENDRONATE 40 MG TABLET
2352915	CO RISEDROCAL COMBO KIT	2347946	SIG-ALENDRONATE 70 MG TABLET
2338696	CO RISEDRONATE 30 MG TABLET	2347954	SIG-ETIDROCAL PACK
2338718	CO RISEDRONATE 35 MG TABLET	2347202	SIG-ETIDRONATE 200 MG TABLET
2351390	CO RISEDRONATE 75 MG TABLET	2347210	SIG-ETIDRONATE 400 MG TABLET
2176017	DIDROCAL	2415100	TARO-ZOLEDRONIC ACID
1908480	DIDRONEL INJ 50MG/ML	2247373	TEVA-ALENDRONATE
582522	DIDRONEL TAB 200MG	2248251	TEVA-ALENDRONATE
1997629	DIDRONEL TAB 200MG	2261715	TEVA-ALENDRONATE
454087	DIDRONEL TAB 200MG (D/C)	2403633	TEVA-ALENDRONATE/CHOLECALCIFEROL



2282763	DOM-ALENDRONATE	2403641	TEVA-ALENDRONATE/CHOLECALCIFEROL
2308398	DOM-ALENDRONATE-FC	2312298	TEVA-RALOXIFENE
2309831	DOM-RISEDRONATE	2298376	TEVA-RISEDRONATE
2347989	ETIDROCAL	2298384	TEVA-RISEDRONATE
2353210	ETIDROCAL	2298392	TEVA-RISEDRONATE
2347962	ETIDRONATE	2413809	TEVA-RISEDRONATE
2347970	ETIDRONATE	2428717	VAN-ALENDRONATE
2239028	EVISTA (60MG)	2428725	VAN-ALENDRONATE
2254689	FORTEO	2428733	VAN-ALENDRONATE
2201011	FOSAMAX	2421720	ZOLEDRONIC ACID - A
2201038	FOSAMAX	2408082	ZOLEDRONIC ACID INJECTION
2233055	FOSAMAX	2422433	ZOLEDRONIC ACID INJECTION
2245329	FOSAMAX		