

**Supplemental Table S1.** Definition of Outcomes and Comorbidities

Definition	ICD-10 codes
Fracture outcome	
Vertebral fracture	Thoracic spine (S22.0, S22.1), lumbar spine (S32.0)
Hip fracture	Femur (S72)
NHNV fracture	Rib, sternum, and thorax (S22.2, S22.3, S22.4, S22.5, S22.6, S22.7, S22.8, S22.9), lumbar spine and pelvis (S32.1, S32.2, S32.3, S32.4, S32.5, S32.6, S32.7, S32.8, S32.9), clavicle and upper arm (S42), forearm (S52), wrist and hand (S62), lower leg (S82), ankle and foot (S92), upper limb (T10), lower limb (T12)
Exclusion criteria	
Cancer	C00–C97
Paget's disease	M88
HIV infection	B20–B24
Osteogenesis imperfecta	Q780
Trauma	T79, T98, V01–V99, W11–W17, W50–W52, W64, X34–X39, Y01–Y04, Y30–Y32
Baseline clinical condition	
Thyroid disorders	
Hypothyroidism	E02, E03, E063
Hyperthyroidism	E05
Other thyroid disorders	E01, E04, E060, E061, E062, E064, E065, E066, E067, E068, E069, E07
Diabetes mellitus	E10, E11, E12, E13, E14
Idiopathic hypoparathyroidism	E20, E21
Cushing's disease	E24
Hyperlipidemia	E78
Hypogonadism	E221, E230, E283
Idiopathic hypercalciuria	E835
Epilepsy	G40, G41
Heart failure	I50
Myocardial infarction	I21
Stroke	I60–I64, I69, G45
Hypertension	I10, I11, I12, I13, I15
Gastrointestinal disorders	K50, K21, K90, K51
Chronic kidney disease	N18, N19
Chronic liver disease	B18, B19, K70–K77
Asthma	J45
COPD	J40–J44
Rheumatoid arthritis	M05, M06
Osteoarthritis	M15–M19
Back pain	M40–M45, M47, M480, M481, M482, M485, M486, M487, M488, M489, M50, M51, M52, M53, M54
Depression	F31, F32, F33, F35
Dementia	F00–F03, G30
Parkinson's disease	G20

ICD-10, International Classification of Diseases, Tenth Revision; NHNV, non-hip and non-vertebral; HIV, human immunodeficiency virus; COPD, chronic obstructive pulmonary disease.