

## **Comorbidities ICD-9CM codes used in the risk analysis for fracture**

### **Cerebral vascular diseases:**

430,431,4321,4329,43300,43301,43310,43311,43320,43321,43330,43331,43380,43381,43390,  
43391,43400,43401,43410,43411,43490,43491,4350,4352,4353,4358,4359,436,4370,4371,  
4372,4373,4376,4377,4378,4379,4380,43810,43811,43812,43819,43820,43821,43822,43832,  
43841,43842,43850,43853,43882,43884,43885,43889,4389,

### **Myocardial infarction and ischemic heart diseases:**

41000,41001,41002,41010,41011,41012,41020,41021,41022,41031,41032,41041,41042,41051,  
41052,41061,41070,41071,41072,41080,41081,41090,41091,41092,4110,4111,41181,41189,412,  
4130,4131,4139,41400,41401,41402,41404,41406,41410,41411,4148,4149,

### **Congestive heart failure:**

4280,4281,42820,42821,42822,42823,42830,42831,42832,42833,42840,42841,42842,42843,4289

### **Peripheral vascular diseases**

44100,44101,44102,44103,4411,4412,4413,4414,4416,4417,4419,4439,7854,V433,V434,

### **Dementia**

2900,29020,2903,29040,29041,29042,29043,2908,2909

### **Diabetes**

25000,25001,25002,25003,25010,25012,25013,25020,25021,25022,25023,25040,25041,25042,  
25043,25050,25051,25052,25053,25060,25061,25062,25063,25070,25071,25072,25073