**Appendix.** Definition of comorbidities

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| Comorbidities | Codes |
| Diabetes | ICD-9 DX: 250.\*0-250.\*3ICD-10 DX: E10.\*\*\*, E11.\*\*\* |
| Hypertension | ICD-9 DX: 401.\*\*-405.\*\*ICD-10 DX: I10-I13.\*\*, I15.\* |
| Hyperlipidemia | ICD-9 DX: 272.\*\*ICD-10 DX: E78.0, E78.2, E78.4, E78.5 |
| Coronary artery disease  | ICD-9 DX: 410.\*-410.9\*, 411.\*, 412, 413.\*, 414.\*, 429.2, 440.9ICD-9 PX: 00.66, 36.01, 36.02, 36.05, 36.10, 36.11, 36.12, 36.13, 36.14, 36.15, 36.16, 36.17ICD-10 DX: I20.\*-I22.\*, I24.\*, I25.\*, I70.90, I70.91CPT: 33510, 33511, 33512, 33513, 33514, 33516, 33517, 33518, 33519, 33520, 33521, 33522, 33523, 33533, 33534, 33535, 33536, 33572, 92920, 92921, 92924, 92925, 92933, 92934, 92937, 92937, 92938, 92941, 92943, 92944, 92982, 92984, 92995, 92996, 93540, 93564, 93570, C9602, C9603, C9604, C9605, C9606, C9607, C9608, S2205, S2206, S2207, S2208, S2209 |
| Myocardial infarction | ICD-9 DX: 410.\*\*, 412.\*\*ICD-10 DX: I21.\*\*\*, I22.\*, I25.2 |
| Dysrhythmia | ICD-9 DX: 427.0-427.4\*, 427.6\*, 427.8\*, 785, 426.\*\*ICD-10 DX: I44.\*-I45.\*, I47.\*-I49.\*, R00.0, R00.1, |
| Congestive heart failure | ICD-9 DX: 428.\*, 398.91, 402.01, 402.11, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93ICD-10 DX: I09.81, I11.0, I13.0, I13.2, I50.1-I50.4\* |
| Cerebrovascular disease | ICD-9 DX: 430.\*1, 431.\*1, 432, 432.9, 434.\*1, 434.\*2, 434.\*3, 434.\*4, 434.\*5, 434.\*6, 434.\*7, 434.\*8, 434.\*9, 435.\*1, 436.\*1ICD-10 DX: G45.\*, G97.31, G97.32, I60.\*, I61.\*, I63.\*, I67,82, I67.89, I97.810, I97.811, I97.820, I97.821 |
| Chronic obstructive pulmonary disease | ICD-9 DX: 491.\*\*, 492.\*\*, 496.\*\*, 493.2ICD-10 DX: J40.\*-J44.\*, J47.\* |
| Cancer | ICD-9 DX: I40.\*\*-209.\*\* ICD-10 DX: C00.\*\*-C96.\*\*, C7A.\*\* |
| Depression | ICD-9 DX: 311.\*\*, 296.2\*, 298.0\*, 300.4\*, 309.0\*, 309.1\*, 293.83, 309.28ICD-10 DX: F32.\*\*, F33.\*\*, F39.\*\*, F06.30, F34.1, F34,8, F43.21, F43.23 |
| Dementia | ICD-9 DX: 290.\*\*, 294.\*\*, 330.\*\*, 331.\*\*ICD-10 DX: F01.50, F01.51, F02.80, F02.81, F03.90, F03.91, F04, F05, F06.0, F06.1, F06.8, F84.2, G13.2, G13.8, G30.\*, G31.\*\*, G91.\*, G93.7, G93.89, G93.9, G94 |