Appendix table 2. The International Classification of Diseases (ICD) codes for comorbidities.

| Comorbidities                      | ICD codes                      |
|------------------------------------|--------------------------------|
| Diabetes mellitus                  | ICD-9-CM: 250                  |
|                                    | ICD-10-CM: E08-E13             |
| Hypertension                       | ICD-9-CM: 401-405              |
|                                    | ICD-10-CM: I10-I13, I15        |
| Cerebrovascular disease            | ICD-9 CM: 430-438              |
|                                    | ICD-10-CM: 160-169             |
| Arrhythmia                         | ICD-9-CM: 427                  |
|                                    | ICD-10-CM: I47-I49             |
| Upper respiratory tract infection  | ICD-9-CM: 465.9                |
|                                    | ICD-10-CM: J00-06, J30-39      |
| Heart failure                      | ICD-9-CM: 428.0                |
|                                    | ICD-10-CM: I50                 |
| Asthma                             | ICD-9-CM: 493                  |
|                                    | ICD-10-CM: J45                 |
| Chronic obstructive pulmonary disease | ICD-9-CM: 490-492, 494-496    |
|                                    | ICD-10-CM: J40-J44, J47        |
| Periodontitis                      | ICD-9-CM: 523                  |
|                                    | ICD-10-CM: K05.4               |
| Chronic kidney disease             | ICD-9-CM: 585                  |
|                                    | ICD-10-CM: N18                 |
| Chronic liver disease              | ICD-9-CM: 571                  |
|                                    | ICD-10-CM: K70-K76             |
| Alcoholism                         | ICD-9-CM: 303                  |
|                                    | ICD-10-CM: F10.2               |
| Alzheimer’s disease                | ICD-9-CM: 331.0, 290.1         |
|                                    | ICD-10-CM: G30, F00            |
| Rheumatoid arthritis               | ICD-9-CM: 714                  |
|                                    | ICD-10-CM: M05-M06, M45        |
| Cancer                             | ICD-9-CM: 140-239              |
|                                    | ICD-10-CM: C00-C97             |
| Epilepsy                           | ICD-9-CM: 345                  |
|                                    | ICD-10-CM: G40-G41             |
| Schizophrenia                      | ICD-9-CM: 295-295.65, 295.8-295.95 |
|                                    | ICD-10-CM: F20-F20.9           |
| Bipolar disorder                   | ICD-9-CM: 296.7                |
|                                    | ICD-10-CM: F31.9               |
| Major depressive disorder          | ICD-9-CM: 296.3                |
|                                    | ICD-10-CM: F32.9               |
| Anxiety                            | ICD-9-CM: 300.0                |
|                                    | ICD-10-CM: F40, F41           |