## Supplementary data

## CIE-9 codes for atrial fibrillation definition

|        | Atrial fibrillation              |
|--------|----------------------------------|
| 427.31 | Atrial fibrillation              |
| 427.32 | Atrial flutter                   |
|        | Nonvalvular definition           |
|        | Valve diseases                   |
| 394.0  | Mitral stenosis                  |
| 394.1  | Rheumatic mitral regurgitation   |
| 395    | Aortic valve diseases            |
| 396    | Mitral and aortic valve diseases |
|        | Mechanical prostheses            |
| 35.22  | Other aortic valve substitution  |
| 35.24  | Other mitral valve substitution  |

## CIE-9 codes for hemorrhage

|        | Type of hemorrhage   |
|--------|--|
|        | Digestive hemorrhage high  |
| 456.0  | Esophageal varices with hemorrhage   |
| 456.20 | Esophageal varices with hemorrhage with other disease                      |
| 530.21 | Esophageal ulcer with hemorrhage   |
| 530.82 | Esophageal hemorrhage  |
| 531.0  | Acute gastric ulcer with hemorrhage  |
| 531.2  | Acute gastric ulcer with hemorrhage and perforation                        |
| 531.4  | Gastric ulcer chronic or unspecified with hemorrhage                       |
| 531.6  | Gastric ulcer chronic or unspecified with hemorrhage and perforation       |
| 535.01 | Acute gastritis with hemorrhage  |
| 535.11 | Atrophic gastritis with hemorrhage   |
| 535.21 | Gastric mucose hypertrophy with hemorrhage                                 |
| 535.31 | Alcoholic gastritis with hemorrhage  |
| 535.41 | Other unspecified gastritis with hemorrhage                                |
| 535.71 | Eosinophilic gastritis with hemorrhage                                     |
| 578.0  | Hematemesis  |
|        | Low  |
| 532.0  | Acute duodenal ulcer with hemorrhage                                       |
| 532.2  | Acute duodenal ulcer with hemorrhage and perforation                       |
| 532.4  | Duodenal ulcer chronic or unspecified with hemorrhage                      |
| 532.6  | Gastric ulcer chronic or unspecified with hemorrhage and perforation       |
| 533.0  | Acute peptic ulcer with hemorrhage   |
| 533.2  | Acute peptic ulcer with hemorrhage and perforation                         |
| 533.4  | Chronic or unspecified peptic ulcer with hemorrhage                        |
| 533.6  | Chronic or unspecified peptic ulcer with hemorrhage and perforation        |
| 534.0  | Acute gastrojejunal ulcer with hemorrhage                                  |
| 534.2  | Acute gastrojejunal ulcer with hemorrhage and perforation                  |
| 534.4  | Chronic or unspecified gastrojejunal ulcer with hemorrhage                 |
| 534.6  | Chronic or unspecified gastrojejunal ulcer with hemorrhage and perforation |
| 535.61 | Duodenitis with hemorrhage   |
| 569.3  | Rectal and anal hemorrhage   |

| 578.1  | Blood in feces   |
|--------|--|
| 370.1  | Unspecified  |
| 535.51 | Gastritis and gastroduodenitis unspecified with hemorrhage |
| 578.9  | Unspecified gastrointestinal bleeding                      |
| 370.3  | Respiratory airway hemorrhages                             |
| 786.30 | Hemoptysis, unspecified                                    |
| 786.39 | Other types of hemoptysis                                  |
| 784.8  | Throat hemorrhage  |
| 704.0  | Cerebral hemorrhages                                       |
| 430    | Subarachnoidal hemorrhage                                  |
| 431    | Intracerebral hemorrhage                                   |
| 432    | Other intracranial hemorrhage                              |
| 102    | Genito-urinary   |
| 593.81 | Renal vascular alteration                                  |
| 596.8  | Other bladder alteration                                   |
| 599.7  | Hematuria  |
| 602.1  | Congestion or prostate hemorrhage                          |
| 608.83 | Vascular alteration of the male genitalia                  |
|        | Retinian   |
| 362.81 | Retinian hemorrhage  |
|        | Gynecological  |
| 621.4  | Hematometra  |
| 622.8  | Other inflammatory unspecified disorders of the cervix     |
| 623.8  | Other inframmatory unspecified disorders of the vagina     |
| 626.5  | Ovulation hemorrhage                                       |
| 626.6  | Metrorrhagia   |
| 626.7  | Postcoital hemorrhage                                      |
| 626.8  | Other menstrual disorder and abnormal hemorrhage           |
| 627.0  | Premenopausal hemorrhage                                   |
| 627.1  | Postmenopausal hemorrhage                                  |
| 666.1  | Other postpartum acute hemorrhage                          |
| 666.2  | Other postpartum subacute or secondary hemorrhage          |
|        | Otorhynolaryngology  |
| 388.69 | Other otorrhea   |
| 784.7  | Epistaxis  |
|        | Unspecified  |
| 285.1  | Post-acute hemorrhagic anemia                              |
| 286.5  | Hemorrhagic disturbances related to anticoagulants         |
| 287.8  | Other hemorrhagic conditions                               |
| 459.0  | Unspecified hemorrhagia                                    |