

Codes defined in the International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10) that we used to identify comorbidities in the Hospital Episode Statistics (HES) database.

Myocardial infarction: I21, “Acute myocardial infarction”; and I22, “Subsequent myocardial infarction”.

Congestive heart failure: I50.0, “Congestive heart failure”.

Peripheral vascular disease: I70, “Atherosclerosis”; I71, “Aortic aneurysm and dissection”; I72, “Other aneurysm and dissection”; and I73, “Other peripheral vascular diseases”.

Cerebrovascular disease: I60, “Subarachnoid haemorrhage”; I61, “Intracerebral haemorrhage”; I62, “Other nontraumatic intracranial haemorrhage”; I63, “Cerebral infarction”; I64, “Stroke, not specified as haemorrhage or infarction”; I65, “Occlusion and stenosis of precerebral arteries, not resulting in cerebral infarction”; I66, “Occlusion and stenosis of cerebral arteries, not resulting in cerebral infarction”; and I67, “Other cerebrovascular diseases”.

Dementia: F00, “Dementia in Alzheimer disease”; F01, “Vascular dementia”; F02, “Dementia in other diseases classified elsewhere”; and F03, “Unspecified dementia”.

Chronic obstructive pulmonary disease: J41, “Simple and mucopurulent chronic bronchitis”; J42, “Unspecified chronic bronchitis”; J43, “Emphysema”; J44, “Other chronic obstructive pulmonary disease”; J45, “Asthma”; J46, “Status asthmaticus”; and J47, “Bronchiectasis”.

Connective tissue disease: M05, “Seropositive rheumatoid arthritis”; M06, “Other rheumatoid arthritis”; M08, “Juvenile arthritis”; M15, “Polyarthrosis”; M16, “Coxarthrosis [arthrosis of hip]”; M17, “Gonarthrosis [arthrosis of knee]”; M18, “Arthrosis of first carpometacarpal joint”; M19, “Other arthrosis” ; M35, “Other systemic involvement of

connective tissue” ; and M36, “Systemic disorders of connective tissue in diseases classified elsewhere”.

Peptic ulcer disease: K25, “Gastric ulcer”; K26, “Duodenal ulcer”; K27, “Peptic ulcer, site unspecified”; and K28, “Gastrojejunal ulcer”.

Mild liver disease: K70.0, “Alcoholic fatty liver”; K76.0, “Fatty (change of) liver, not elsewhere classified”; and K76.1 “Chronic passive congestion of liver”.

Mild diabetes (without end organ damage - include ketoacidosis and coma): E10.X, “Insulin-dependent diabetes mellitus”; E10.0, “Insulin-dependent diabetes mellitus with coma”; E10.1, “Insulin-dependent diabetes mellitus with ketoacidosis” ; E10.9, “Insulin-dependent diabetes mellitus without complications”; E11.X, “Non-insulin-dependent diabetes mellitus”; E11.0, “Non-insulin-dependent diabetes mellitus with coma”; E11.1, “Non-insulin-dependent diabetes mellitus with ketoacidosis” ; E11.9, “Non-insulin-dependent diabetes mellitus without complications”; E12.X, “Malnutrition-related diabetes mellitus”; E12.0, “Malnutrition-related diabetes mellitus with coma”; E12.1, “Malnutrition-related diabetes mellitus with ketoacidosis”; E12.9, “Malnutrition-related diabetes mellitus without complications”; E13.X, “Other specified diabetes mellitus”; E13.0, “Other specified diabetes mellitus with coma”; E13.1, “Other specified diabetes mellitus with ketoacidosis”; E13.9, “Other specified diabetes mellitus without complications”; E14.X, “Unspecified diabetes mellitus”; E14.0, “Unspecified diabetes mellitus with coma”; E14.1, “Unspecified diabetes mellitus with ketoacidosis”; and E14.9, “Unspecified diabetes mellitus without complications” .

Hemiplegia: G81, “Hemiplegia. Excluding congenital cerebral palsy”

Moderate/severe renal disease: N17, “Acute renal failure”; N18, “Chronic kidney disease”; and N19, “Unspecified kidney failure”.

Severe diabetes (i.e. with organ damage): E10, “Insulin-dependent diabetes mellitus”; E11, “Non-insulin-dependent diabetes mellitus”; E12, “Malnutrition-related diabetes mellitus”; E13, “Other specified diabetes mellitus”; or E14, “Unspecified diabetes mellitus”.

Complicated with: .2, “With renal complications”; .3 “With ophthalmic complications”; .4, “With neurological complications”; .5, “With peripheral circulatory complications”; .6, “With other specified complications”; .7, “With multiple complications”; or .8, “With unspecified complications”. N083, “Glomerular disorders in diabetes mellitus”.

Tumour: C00-C75, “Malignant neoplasms, stated or presumed to be primary, of specified sites, except of lymphoid, haematopoietic and related tissue”; C76, “Malignant neoplasm of other and ill-defined sites”; C80, “Malignant neoplasm, without specification of site”; C88, “Malignant immunoproliferative diseases”; C90.0, “Multiple myeloma”; C90.2, “Extramedullary plasmacytoma”; C96, “Other and unspecified malignant neoplasms of lymphoid, haematopoietic and related tissue”; C97, “Malignant neoplasms of independent (primary) multiple sites”; D00-D09, “In situ neoplasms”; D10-D36, “Benign neoplasms”; and D37-D48, “Neoplasms of uncertain or unknown behaviour”.

Leukaemia: C90.1, “Plasma cell leukaemia”; C91, “Lymphoid leukaemia”; C92, “Myeloid leukaemia”; C93, “Monocytic leukaemia”; C94, “Other leukaemias of specified cell type”; and C95 “Leukaemia of unspecified cell type”.

Lymphoma: C81, “Hodgkin lymphoma”; C82, “Follicular lymphoma”; C83, “Non-follicular lymphoma”; C84, “Mature T/NK-cell lymphomas”; and C85, “Other and unspecified types of non-Hodgkin lymphoma”.

Moderate/severe liver disease: K70, “Alcoholic liver disease except”; K71, “Toxic liver disease”; K72, “Hepatic failure, not elsewhere classified”; K73, “Chronic hepatitis, not elsewhere classified”; K74, “Fibrosis and cirrhosis of liver”; K75, “Other inflammatory liver

diseases”; and K76, “Other diseases of liver”. Excluding codes for mild liver disease: K70.0, K76.0 and K76.1.

AIDS: B20, “HIV disease resulting in infectious and parasitic diseases”; B21, “HIV disease resulting in malignant neoplasms”; B22, “HIV disease resulting in other specified diseases”; and B23 “HIV disease resulting in other conditions”.

Metastatic solid tumour: C77, “Secondary and unspecified malignant neoplasm of lymph nodes”; C78, “Secondary malignant neoplasm of respiratory and digestive organs”; and C79, “Secondary malignant neoplasm of other and unspecified sites”.