

FILLING GAPS IN FEMALE GOUT: A CROSS-SECTIONAL STUDY OF COMORBIDITIES IN 192,037 HOSPITALIZED PATIENTS.**Supplementary Material****Index**

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LIST OF ICD-9 CODES USED FOR GOUT AND COMORBIDITIES INCLUDED IN THE STUDY.

- 274 Gout
 - 274.0 Gouty arthropathy
 - 274.00 Gouty arthropathy, unspecified
 - 274.01 Acute gouty arthropathy
 - 274.02 Chronic gouty arthropathy without mention of tophus (tophi)
 - 274.03 Chronic gouty arthropathy with tophus (tophi)
 - 274.1 Gouty nephropathy
 - 274.10 Gouty nephropathy, unspecified
 - 274.11 Uric acid nephrolithiasis
 - 274.19 Other
 - 274.8 Gout with other specified manifestations
 - 274.81 Gouty tophi of ear
 - 274.82 Gouty tophi of other sites
 - 274.89 Other
 - 274.9 Gout, unspecified
- 250 Diabetes mellitus
 - 250.0 Diabetes mellitus without mention of complication
 - 250.00 Type II or unspecified type, not stated as uncontrolled
 - 250.01 Type I [juvenile type], not stated as uncontrolled
 - 250.02 Type II or unspecified type, uncontrolled
 - 250.03 Type I [juvenile type], uncontrolled
 - 250.1 Diabetes with ketoacidosis
 - 250.10 Type II or unspecified type, not stated as uncontrolled
 - 250.11 Type I [juvenile type], not stated as uncontrolled
 - 250.12 Type II or unspecified type, uncontrolled
 - 250.13 Type I [juvenile type], uncontrolled
 - 250.2 Diabetes with hyperosmolarity

- 250.20 Type II or unspecified type, not stated as uncontrolled
- 250.21 Type I [juvenile type], not stated as uncontrolled
- 250.22 Type II or unspecified type, uncontrolled
- 250.23 Type I [juvenile type], uncontrolled
- 250.3 Diabetes with other coma
 - 250.30 Type II or unspecified type, not stated as uncontrolled
 - 250.31 Type I [juvenile type], not stated as uncontrolled
 - 250.32 Type II or unspecified type, uncontrolled
 - 250.33 Type I [juvenile type], uncontrolled
- 250.4 Diabetes with renal manifestations
 - 250.40 Type II or unspecified type, not stated as uncontrolled
 - 250.41 Type I [juvenile type], not stated as uncontrolled
 - 250.42 Type II or unspecified type, uncontrolled
 - 250.43 Type I [juvenile type], uncontrolled
- 250.5 Diabetes with ophthalmic manifestations
 - 250.50 Type II or unspecified type, not stated as uncontrolled
 - 250.51 Type I [juvenile type], not stated as uncontrolled
 - 250.52 Type II or unspecified type, uncontrolled
 - 250.53 Type I [juvenile type], uncontrolled
- 250.6 Diabetes with neurological manifestations
 - 250.60 Type II or unspecified type, not stated as uncontrolled
 - 250.61 Type I [juvenile type], not stated as uncontrolled
 - 250.62 Type II or unspecified type, uncontrolled
 - 250.63 Type I [juvenile type], uncontrolled
- 250.7 Diabetes with peripheral circulatory disorders
 - 250.70 Type II or unspecified type, not stated as uncontrolled
 - 250.71 Type I [juvenile type], not stated as uncontrolled
 - 250.72 Type II or unspecified type, uncontrolled
 - 250.73 Type I [juvenile type], uncontrolled
- 250.8 Diabetes with other specified manifestations

- 250.80 Type II or unspecified type, not stated as uncontrolled
- 250.81 Type I [juvenile type], not stated as uncontrolled
- 250.82 Type II or unspecified type, uncontrolled
- 250.83 Type I [juvenile type], uncontrolled
- 250.9 Diabetes with unspecified complication
 - 250.90 Type II or unspecified type, not stated as uncontrolled
 - 250.91 Type I [juvenile type], not stated as uncontrolled
 - 250.92 Type II or unspecified type, uncontrolled
 - 250.93 Type I [juvenile type], uncontrolled
- 272 Dyslipidemia:
 - 272.0 Pure hypercholesterolemia
 - 272.1 Pure hyperglyceridemia
 - 272.2 Mixed hyperlipidemia
 - 272.3 Hyperchylomicronemia
 - 272.4 Other and unspecified hyperlipidemia
 - 272.9 Unspecified disorder of lipoid metabolism
- 278 Obesity:
 - 278.0 Overweight and obesity
 - 278.00 Obesity, unspecified
 - 278.01 Morbid obesity
 - 278.02 Overweight
 - 278.03 Obesity hypoventilation syndrome
 - 278.1 Localized adiposity
 - 278.8 Other hyperalimentation
- Dementia
 - 290 Dementias
 - 290.0 Senile dementia, uncomplicated
 - 290.1 Presenile dementia
 - 290.10 Presenile dementia, uncomplicated

- 290.11 Presenile dementia with delirium
- 290.12 Presenile dementia with delusional features
- 290.13 Presenile dementia with depressive features
- 290.2 Senile dementia with delusional or depressive features
 - 290.20 Senile dementia with delusional features
 - 290.21 Senile dementia with depressive features
- 290.3 Senile dementia with delirium
- 290.4 Vascular dementia
 - 290.40 Vascular dementia, uncomplicated
 - 290.41 Vascular dementia with delirium
 - 290.42 Vascular dementia with delusions
 - 290.43 Vascular dementia with depressed mood
- 290.8 Other specified senile psychotic conditions
- 290.9 Unspecified senile psychotic condition
- 294 Persistent mental disorders due to conditions classified elsewhere
 - 294.0 Amnestic disorder in conditions classified elsewhere
 - 294.1 Dementia in conditions classified elsewhere
 - 294.10 Dementia in conditions classified elsewhere without behavioral disturbance
 - 294.11 Dementia in conditions classified elsewhere with behavioral disturbance
 - 294.2 Dementia, unspecified
 - 294.20 Dementia, unspecified, without behavioral disturbance
 - 294.21 Dementia, unspecified, with behavioral disturbance
 - 294.8 Other persistent mental disorders due to conditions classified elsewhere
 - 294.9 Unspecified persistent mental disorders due to conditions classified elsewhere
- Hypertension:
 - 401 Essential hypertension
 - 401.0 Malignant
 - 401.1 Benign
 - 401.9 Unspecified
 - 402 Hypertensive heart disease

- 402.0 Malignant
 - 402.00 Without heart failure
 - 402.01 With heart failure
- 402.1 Benign
 - 402.10 Without heart failure
 - 402.11 With heart failure
- 402.9 Unspecified
 - 402.90 Without heart failure
 - 402.91 With heart failure
- 403 Hypertensive chronic kidney disease
 - 403.0 Malignant
 - 403.00 With chronic kidney disease stage I through stage IV, or unspecified
 - 403.01 With chronic kidney disease stage V or end stage renal disease
 - 403.1 Benign
 - 403.10 With chronic kidney disease stage I through stage IV, or unspecified
 - 403.11 With chronic kidney disease stage V or end stage renal disease
 - 403.9 Unspecified
 - 403.90 With chronic kidney disease stage I through stage IV, or unspecified
 - 403.91 With chronic kidney disease stage V or end stage renal disease
- 404 Hypertensive heart and chronic kidney disease
 - 404.0 Malignant
 - 404.00 Without heart failure and with chronic kidney disease stage I through stage IV, or unspecified
 - 404.01 With heart failure and with chronic kidney disease stage I through stage IV, or unspecified
 - 404.02 Without heart failure and with chronic kidney disease stage V or end stage renal disease
 - 404.03 With heart failure and chronic kidney disease stage V or end stage renal disease
 - 404.1 Benign
 - 404.10 Without heart failure and with chronic kidney disease stage I through stage IV, or unspecified
 - 404.11 With heart failure and with chronic kidney disease stage I through stage IV, or unspecified

unspecified

404.12 Without heart failure and with chronic kidney disease stage V or end stage renal disease

404.13 With heart failure and chronic kidney disease stage V or end stage renal disease

404.9 Unspecified

404.90 Without heart failure and with chronic kidney disease stage I through stage IV, or unspecified

404.91 With heart failure and with chronic kidney disease stage I through stage IV, or unspecified

404.92 Without heart failure and with chronic kidney disease stage V or end stage renal disease

404.93 With heart failure and chronic kidney disease stage V or end stage renal disease

405 Secondary hypertension

405.0 Malignant

405.01 Renovascular

405.09 Other

405.1 Benign

405.11 Renovascular

405.19 Other

405.9 Unspecified

405.91 Renovascular

405.99 Other

- Coronary heart disease

410 Acute myocardial infarction

410.0 Of anterolateral wall

410.00 Episode of care unspecified

410.01 Initial episode of care

410.02 Subsequent episode of care

410.1 Of other anterior wall

410.10 Episode of care unspecified

410.11 Initial episode of care

410.12 Subsequent episode of care

- 410.2 Of inferolateral wall
 - 410.20 Episode of care unspecified
 - 410.21 Initial episode of care
 - 410.22 Subsequent episode of care
- 410.3 Of inferoposterior wall
 - 410.30 Episode of care unspecified
 - 410.31 Initial episode of care
 - 410.32 Subsequent episode of care
- 410.4 Of other inferior wall
 - 410.40 Episode of care unspecified
 - 410.41 Initial episode of care
 - 410.42 Subsequent episode of care
- 410.5 Of other lateral wall
 - 410.50 Episode of care unspecified
 - 410.51 Initial episode of care
 - 410.52 Subsequent episode of care
- 410.6 True posterior wall infarction
 - 410.60 Episode of care unspecified
 - 410.61 Initial episode of care
 - 410.62 Subsequent episode of care
- 410.7 Subendocardial infarction
 - 410.70 Episode of care unspecified
 - 410.71 Initial episode of care
 - 410.72 Subsequent episode of care
- 410.8 Of other specified sites
 - 410.80 Episode of care unspecified
 - 410.81 Initial episode of care
 - 410.82 Subsequent episode of care
- 410.9 Unspecified site
 - 410.90 Episode of care unspecified

- 410.91 Initial episode of care
- 410.92 Subsequent episode of care
- 411 Other acute and subacute forms of ischemic heart disease
 - 411.0 Postmyocardial infarction syndrome
 - 411.1 Intermediate coronary syndrome
 - 411.8 Other
 - 411.81 Acute coronary occlusion without myocardial infarction
 - 411.89 Other
- 412 Old myocardial infarction
- 413 Angina pectoris
 - 413.0 Angina decubitus
 - 413.1 Prinzmetal angina
 - 413.9 Other and unspecified angina pectoris
- 414 Other forms of chronic ischemic heart disease
 - 414.0 Coronary atherosclerosis
 - 414.00 Of unspecified type of vessel, native or graft
 - 414.01 Of native coronary artery
 - 414.02 Of autologous biological bypass graft
 - 414.03 Of nonautologous biological bypass graft
 - 414.04 Of artery bypass graft
 - 414.05 Of unspecified type of bypass graft
 - 414.06 Of native coronary artery of transplanted heart
 - 414.07 Of bypass graft (artery) (vein) of transplanted heart
 - 414.1 Aneurysm and dissection of heart
 - 414.10 Aneurysm of heart (wall)
 - 414.11 Aneurysm of coronary vessels
 - 414.12 Dissection of coronary artery
 - 414.19 Other aneurysm of heart
 - 414.2 Chronic total occlusion of coronary artery
 - 414.3 Coronary atherosclerosis due to lipid rich plaque

- 414.4 Coronary atherosclerosis due to calcified coronary lesion
- 414.8 Other specified forms of chronic ischemic heart disease
- 414.9 Chronic ischemic heart disease, unspecified
- 427 Arrhythmia:
 - 427.0 Paroxysmal supraventricular tachycardia
 - 427.1 Paroxysmal ventricular tachycardia
 - 427.2 Paroxysmal tachycardia, unspecified
 - 427.3 Atrial fibrillation and flutter
 - 427.31 Atrial fibrillation
 - 427.32 Atrial flutter
 - 427.4 Ventricular fibrillation and flutter
 - 427.41 Ventricular fibrillation
 - 427.42 Ventricular flutter
 - 427.5 Cardiac arrest
 - 427.6 Premature beats
 - 427.60 Premature beats, unspecified
 - 427.61 Supraventricular premature beats
 - 427.69 Other
 - 427.8 Other specified cardiac dysrhythmias
 - 427.81 Sinoatrial node dysfunction
 - 427.89 Other
 - 427.9 Cardiac dysrhythmia, unspecified
- 428 Heart failure
 - 428.0 Congestive heart failure, unspecified
 - 428.1 Left heart failure
 - 428.2 Systolic heart failure
 - 428.20 Unspecified
 - 428.21 Acute
 - 428.22 Chronic
 - 428.23 Acute on chronic

- 428.3 Diastolic heart failure
 - 428.30 Unspecified
 - 428.31 Acute
 - 428.32 Chronic
 - 428.33 Acute on chronic
- 428.4 Combined systolic and diastolic heart failure
 - 428.40 Unspecified
 - 428.41 Acute
 - 428.42 Chronic
 - 428.43 Acute on chronic
- 428.9 Heart failure, unspecified
- Cerebrovascular disease:
 - 430 Subarachnoid hemorrhage
 - 431 Intracerebral hemorrhage
 - 432 Other and unspecified intracranial hemorrhage
 - 432.0 Nontraumatic extradural hemorrhage
 - 432.1 Subdural hemorrhage
 - 432.9 Unspecified intracranial hemorrhage
 - 433 Occlusion and stenosis of precerebral arteries
 - 433.0 Basilar artery
 - 433.00 Without mention of cerebral infarction
 - 433.01 With cerebral infarction
 - 433.1 Carotid artery
 - 433.10 Without mention of cerebral infarction
 - 433.11 With cerebral infarction
 - 433.2 Vertebral artery
 - 433.20 Without mention of cerebral infarction
 - 433.21 With cerebral infarction
 - 433.3 Multiple and bilateral
 - 433.30 Without mention of cerebral infarction

433.31 With cerebral infarction

433.8 Other specified precerebral artery

433.80 Without mention of cerebral infarction

433.81 With cerebral infarction

433.9 Unspecified precerebral artery

433.90 Without mention of cerebral infarction

433.91 With cerebral infarction

434 Occlusion of cerebral arteries

434.0 Cerebral thrombosis

434.00 Without mention of cerebral infarction

434.01 With cerebral infarction

434.1 Cerebral embolism

434.10 Without mention of cerebral infarction

434.11 With cerebral infarction

434.9 Cerebral artery occlusion, unspecified

434.90 Without mention of cerebral infarction

434.91 With cerebral infarction

435 Transient cerebral ischemia

435.0 Basilar artery syndrome

435.1 Vertebral artery syndrome

435.2 Subclavian steal syndrome

435.3 Vertebrobasilar artery syndrome

435.8 Other specified transient cerebral ischemias

435.9 Unspecified transient cerebral ischemia

436 Acute, but ill-defined, cerebrovascular disease

437 Other and ill-defined cerebrovascular disease

437.0 Cerebral atherosclerosis

437.1 Other generalized ischemic cerebrovascular disease

437.2 Hypertensive encephalopathy

437.3 Cerebral aneurysm, nonruptured

- 437.4 Cerebral arteritis
- 437.5 Moyamoya disease
- 437.6 Nonpyogenic thrombosis of intracranial venous sinus
- 437.7 Transient global amnesia
- 437.8 Other
- 437.9 Unspecified
- 438 Late effects of cerebrovascular disease
 - 438.0 Cognitive deficits
 - 438.1 Speech and language deficits
 - 438.10 Speech and language deficit, unspecified
 - 438.11 Aphasia
 - 438.12 Dysphasia
 - 438.13 Dysarthria
 - 438.14 Fluency disorder
 - 438.19 Other speech and language deficits
 - 438.2 Hemiplegia/hemiparesis
 - 438.20 Hemiplegia affecting unspecified side
 - 438.21 Hemiplegia affecting dominant side
 - 438.22 Hemiplegia affecting nondominant side
 - 438.3 Monoplegia of upper limb
 - 438.30 Monoplegia of upper limb affecting unspecified side
 - 438.31 Monoplegia of upper limb affecting dominant side
 - 438.32 Monoplegia of upper limb affecting nondominant side
 - 438.4 Monoplegia of lower limb
 - 438.40 Monoplegia of lower limb affecting unspecified side
 - 438.41 Monoplegia of lower limb affecting dominant side
 - 438.42 Monoplegia of lower limb affecting nondominant side
 - 438.5 Other paralytic syndrome
 - 438.50 Other paralytic syndrome affecting unspecified side
 - 438.51 Other paralytic syndrome affecting dominant side

- 438.52 Other paralytic syndrome affecting nondominant side
- 438.53 Other paralytic syndrome, bilateral
- 438.6 Alterations of sensations
- 438.7 Disturbances of vision
- 438.8 Other late effects of cerebrovascular disease
 - 438.81 Apraxia
 - 438.82 Dysphagia
 - 438.83 Facial weakness
 - 438.84 Ataxia
 - 438.85 Vertigo
 - 438.89 Other late effects of cerebrovascular disease
- 438.9 Unspecified late effects of cerebrovascular disease
- 443 Peripheral vascular disease
 - 443.0 Raynaud's syndrome
 - 443.1 Thromboangiitis obliterans [Buerger's disease]
 - 443.2 Other arterial dissection
 - 443.21 Dissection of carotid artery
 - 443.22 Dissection of iliac artery
 - 443.23 Dissection of renal artery
 - 443.24 Dissection of vertebral artery
 - 443.29 Dissection of other artery
 - 443.8 Other specified peripheral vascular diseases
 - 443.81 Peripheral angiopathy in diseases classified elsewhere
 - 443.82 Erythromelalgia
 - 443.89 Other
 - 443.9 Peripheral vascular disease, unspecified
- Venous thromboembolism:
 - 415 Acute pulmonary heart disease
 - 415.1 Pulmonary embolism and infarction
 - 415.11 Iatrogenic pulmonary embolism and infarction

- 415.13 Saddle embolus of pulmonary artery
- 415.19 Other
- 416 Chronic pulmonary heart disease
- 416.2 Chronic pulmonary embolism
- 451 Phlebitis and thrombophlebitis
- 451.0 Of superficial vessels of lower extremities
- 451.1 Of deep vessels of lower extremities
 - 451.11 Femoral vein (deep) (superficial)
 - 451.19 Other
- 451.2 Of lower extremities, unspecified
- 451.8 Of other sites
 - 451.81 Iliac vein
 - 451.82 Of superficial veins of upper extremities
 - 451.83 Of deep veins of upper extremities
 - 451.84 Of upper extremities, unspecified
 - 451.89 Other
- 451.9 Of unspecified site
- 452 Portal vein thrombosis
- 453 Other venous embolism and thrombosis
- 453.0 Budd-Chiari syndrome
- 453.1 Thrombophlebitis migrans
- 453.2 Of inferior vena cava
- 453.3 Of renal vein
- 453.4 Acute venous embolism and thrombosis of deep vessels of lower extremity
 - 453.40 Acute venous embolism and thrombosis of unspecified deep vessels of lower extremity
 - 453.41 Acute venous embolism and thrombosis of deep vessels of proximal lower extremity
 - 453.42 Acute venous embolism and thrombosis of deep vessels of distal lower extremity
- 453.5 Chronic venous embolism and thrombosis of deep vessels of lower extremity

- 453.50 Chronic venous embolism and thrombosis of unspecified deep vessels of lower extremity
- 453.51 Chronic venous embolism and thrombosis of deep vessels of proximal lower extremity
- 453.52 Chronic venous embolism and thrombosis of deep vessels of distal lower extremity
- 453.6 Venous embolism and thrombosis of superficial vessels of lower extremity
- 453.7 Chronic venous embolism and thrombosis of other specified vessels
 - 453.71 Chronic venous embolism and thrombosis of superficial veins of upper extremity
 - 453.72 Chronic venous embolism and thrombosis of deep veins of upper extremity
 - 453.73 Chronic venous embolism and thrombosis of upper extremity, unspecified
 - 453.74 Chronic venous embolism and thrombosis of axillary veins
 - 453.75 Chronic venous embolism and thrombosis of subclavian veins
 - 453.76 Chronic venous embolism and thrombosis of internal jugular veins
 - 453.77 Chronic venous embolism and thrombosis of other thoracic veins
 - 453.79 Chronic venous embolism and thrombosis of other specified veins
- 453.8 Acute venous embolism and thrombosis of other specified veins
 - 453.81 Acute venous embolism and thrombosis of superficial veins of upper extremity
 - 453.82 Acute venous embolism and thrombosis of deep veins of upper extremity
 - 453.83 Acute venous embolism and thrombosis of upper extremity, unspecified
 - 453.84 Acute venous embolism and thrombosis of axillary veins
 - 453.85 Acute venous embolism and thrombosis of subclavian veins
 - 453.86 Acute venous embolism and thrombosis of internal jugular veins
 - 453.87 Acute venous embolism and thrombosis of other thoracic veins
 - 453.89 Acute venous embolism and thrombosis of other specified veins
- 453.9 Of unspecified site
- 459 Other disorders of circulatory system
 - 459.1 Postphlebotic syndrome
 - 459.10 Postphlebotic syndrome without complications
 - 459.11 Postphlebotic syndrome with ulcer

- 459.12 Postphlebotic syndrome with inflammation
- 459.13 Postphlebotic syndrome with ulcer and inflammation
- 459.19 Postphlebotic syndrome with other complication

- Pneumonia:

- 480 Viral pneumonia
 - 480.0 Pneumonia due to adenovirus
 - 480.1 Pneumonia due to respiratory syncytial virus
 - 480.2 Pneumonia due to parainfluenza virus
 - 480.3 Pneumonia due to SARS-associated coronavirus
 - 480.8 Pneumonia due to other virus not elsewhere classified
 - 480.9 Viral pneumonia, unspecified
- 481 Pneumococcal pneumonia
- 482 Other bacterial pneumonia
 - 482.0 Pneumonia due to *Klebsiella pneumoniae*
 - 482.1 Pneumonia due to *Pseudomonas*
 - 482.2 Pneumonia due to *Hemophilus influenzae* [H. influenzae]
 - 482.3 Pneumonia due to *Streptococcus*
 - 482.30 *Streptococcus*, unspecified
 - 482.31 Group A
 - 482.32 Group B
 - 482.39 Other *Streptococcus*
 - 482.4 Pneumonia due to *Staphylococcus*
 - 482.40 Pneumonia due to *Staphylococcus*, unspecified
 - 482.41 Methicillin susceptible pneumonia due to *Staphylococcus aureus*
 - 482.42 Methicillin resistant pneumonia due to *Staphylococcus aureus*
 - 482.49 Other *Staphylococcus pneumoniae*
 - 482.8 Pneumonia due to other specified bacteria
 - 482.81 Anaerobes
 - 482.82 *Escherichia coli* [E. coli]
 - 482.83 Other gram-negative bacteria

- 482.84 Legionnaires' disease
- 482.89 Other specified bacteria
- 482.9 Bacterial pneumonia unspecified
- 483 Pneumonia due to other specified organism
- 483.0 Mycoplasma pneumoniae
- 483.1 Chlamydia
- 483.8 Other specified organism
- 484 Pneumonia in infectious diseases classified elsewhere
- 484.1 Pneumonia in cytomegalic inclusion disease
- 484.3 Pneumonia in whooping cough
- 484.5 Pneumonia in anthrax
- 484.6 Pneumonia in aspergillosis
- 484.7 Pneumonia in other systemic mycoses
- 484.8 Pneumonia in other infectious diseases classified elsewhere
- 485 Bronchopneumonia, organism unspecified
- 486 Pneumonia, organism unspecified
- Obstructive pulmonary disease:
 - 490 Bronchitis, not specified as acute or chronic
 - 491 Chronic bronchitis
 - 491.0 Simple chronic bronchitis
 - 491.1 Mucopurulent chronic bronchitis
 - 491.2 Obstructive chronic bronchitis
 - 491.20 Without exacerbation
 - 491.21 With (acute) exacerbation
 - 491.22 With acute bronchitis
 - 491.8 Other chronic bronchitis
 - 491.9 Unspecified chronic bronchitis
 - 492 Emphysema
 - 492.0 Emphysematous bleb
 - 492.8 Other emphysema

- 493 Asthma
 - 493.0 Extrinsic asthma
 - 493.00 Unspecified
 - 493.01 With status asthmaticus
 - 493.02 With (acute) exacerbation
 - 493.1 Intrinsic asthma
 - 493.10 Unspecified
 - 493.11 With status asthmaticus
 - 493.12 With (acute) exacerbation
 - 493.2 Chronic obstructive asthma
 - 493.20 Unspecified
 - 493.21 With status asthmaticus
 - 493.22 With (acute) exacerbation
 - 494 Bronchiectasis
 - 494.0 Bronchiectasis without acute exacerbation
 - 494.1 Bronchiectasis with acute exacerbation
 - 495 Extrinsic allergic alveolitis
 - 495.0 Farmers' lung
 - 495.1 Bagassosis
 - 495.2 Bird-fanciers' lung
 - 495.3 Suberosis
 - 495.4 Malt workers' lung
 - 495.5 Mushroom workers' lung
 - 495.6 Maple bark-strippers' lung
 - 495.7 "Ventilation" pneumonitis
 - 495.8 Other specified allergic alveolitis and pneumonitis
 - 495.9 Unspecified allergic alveolitis and pneumonitis
 - 496 Chronic airway obstruction, not elsewhere classified
- Liver disease:
 - 571 Chronic liver disease and cirrhosis

- 571.0 Alcoholic fatty liver
- 571.1 Acute alcoholic hepatitis
- 571.2 Alcoholic cirrhosis of liver
- 571.3 Alcoholic liver damage, unspecified
- 571.4 Chronic hepatitis
 - 571.40 Chronic hepatitis, unspecified
 - 571.41 Chronic persistent hepatitis
 - 571.42 Autoimmune hepatitis
 - 571.49 Other
- 571.5 Cirrhosis of liver without mention of alcohol
- 571.6 Biliary cirrhosis
- 571.8 Other chronic nonalcoholic liver disease
- 571.9 Unspecified chronic liver disease without mention of alcohol
- 572 Liver abscess and sequelae of chronic liver disease
 - 572.2 Hepatic encephalopathy
 - 572.3 Portal hypertension
 - 572.4 Hepatorenal syndrome
 - 572.8 Other sequelae of chronic liver disease
- 573 Other disorders of liver
 - 573.0 Chronic passive congestion of liver
 - 573.5 Hepatopulmonary syndrome
 - 573.8 Other specified disorders of liver
 - 573.9 Unspecified disorder of liver
- 585 Chronic kidney disease
 - 585.1 Chronic kidney disease, Stage I
 - 585.2 Chronic kidney disease, Stage II (mild)
 - 585.3 Chronic kidney disease, Stage III (moderate)
 - 585.4 Chronic kidney disease, Stage IV (severe)
 - 585.5 Chronic kidney disease, Stage V
 - 585.6 End stage renal disease

585.9 Chronic kidney disease, unspecified

- Urinary tract infection:

590 Infections of kidney

590.0 Chronic pyelonephritis

590.00 Without lesion of renal medullary necrosis

590.01 With lesion of renal medullary necrosis

590.1 Acute pyelonephritis

590.10 Without lesion of renal medullary necrosis

590.11 With lesion of renal medullary necrosis

590.2 Renal and perinephric abscess

590.3 Pyeloureteritis cystica

590.8 Other pyelonephritis or pyonephrosis, not specified as acute or chronic

590.80 Pyelonephritis, unspecified

590.81 Pyelitis or pyelonephritis in diseases classified elsewhere

590.9 Infection of kidney, unspecified

595 Cystitis

595.0 Acute cystitis

595.1 Chronic interstitial cystitis

595.2 Other chronic cystitis

595.3 Trigonitis

595.4 Cystitis in diseases classified elsewhere

595.8 Other specified types of cystitis

595.81 Cystitis cystica

595.89 Other

595.9 Cystitis, unspecified

597 Urethritis, not sexually transmitted, and urethral syndrome

597.0 Urethral abscess

597.8 Other urethritis

597.80 Urethritis, unspecified

597.81 Urethral syndrome NOS

597.89 Other

599 Other disorders of urethra and urinary tract

599.0 Urinary tract infection, site not specified

- Urinary lithiasis

591 Hydronephrosis

592 Calculus of kidney and ureter

592.0 Calculus of kidney

592.1 Calculus of ureter

592.9 Urinary calculus, unspecified

594 Calculus of lower urinary tract

594.0 Calculus in diverticulum of bladder

594.1 Other calculus in bladder

594.2 Calculus in urethra

594.8 Other lower urinary tract calculus

594.9 Calculus of lower urinary tract, unspecified

- Rheumatic disease

710 Diffuse diseases of connective tissue

710.0 Systemic lupus erythematosus

710.1 Systemic sclerosis

710.2 Sicca syndrome

710.3 Dermatomyositis

710.4 Polymyositis

710.5 Eosinophilia myalgia syndrome

710.8 Other specified diffuse diseases of connective tissue

710.9 Unspecified diffuse connective tissue disease

714 Rheumatoid arthritis and other inflammatory polyarthropathies

714.0 Rheumatoid arthritis

714.1 Felty's syndrome

714.2 Other rheumatoid arthritis with visceral or systemic involvement

714.3 Juvenile chronic polyarthritis

- 714.30 Polyarticular juvenile rheumatoid arthritis, chronic or unspecified
- 714.31 Polyarticular juvenile rheumatoid arthritis, acute
- 714.32 Pauciarticular juvenile rheumatoid arthritis
- 714.33 Monoarticular juvenile rheumatoid arthritis
- 714.4 Chronic post-rheumatic arthropathy
- 714.8 Other specified inflammatory polyarthropathies
 - 714.81 Rheumatoid lung
 - 714.89 Other
- 714.9 Unspecified inflammatory polyarthropathy
- 995 Sepsis
 - 995.91 Sepsis
 - 995.92 Severe sepsis

TABLES.

Table S1. Logistic regression stratified by age, equal or below 60 years old, or above 60 years old.

	Coefficient	Odds ratio	95% CI	p-value
Population ≤60 years				
Obesity	0.06	1.06	1.02-1.10	0.001
Dyslipidemia	-0.19	0.83	0.80-0.86	<0.001
Chronic kidney disease	0.34	1.40	1.36-1.45	<0.001
Diabetes mellitus	0.10	1.10	1.06-1.14	<0.001
Coronary heart disease	-0.29	0.80	0.77-0.82	<0.001
Heart failure	-0.07	0.93	0.90-0.96	<0.001
Peripheral vascular disease	0.03	1.03	0.99-1.06	0.149
Arrhythmia	-0.12	0.89	0.86-0.92	<0.001
Venous thromboembolism	-0.03	0.97	0.94-1.01	0.001
Cerebrovascular disease	0.07	1.07	1.03-1.11	<0.001
Dementia	0.07	1.07	1.03-1.10	<0.001
Urinary tract infection	0.20	1.23	1.19-1.27	<0.001
Pneumonia	-0.1	0.91	0.88-0.94	<0.001
Sepsis	0.03	1.03	1.00-1.07	0.086
Obstructive pulmonary disease	0.05	1.06	1.02-1.09	0.107
Liver disease	-0.05	0.95	0.92-0.98	0.002
Rheumatic disease	0.30	1.35	1.30-1.39	<0.001
Population >60 years				
Obesity	0.15	1.16	1.15-1.16	<0.001
Dyslipidemia	0.03	1.03	1.02-1.03	<0.001
Chronic kidney disease	0.12	1.13	1.12-1.13	<0.001
Diabetes mellitus	0.18	1.19	1.19-1.20	<0.001
Coronary heart disease	-0.16	0.85	0.85-0.86	<0.001
Heart failure	0.33	1.39	1.39-1.40	<0.001
Peripheral vascular disease	-0.17	0.84	0.84-0.85	<0.001
Arrhythmia	-0.01	0.99	0.99-0.99	<0.001
Venous thromboembolism	0.02	1.02	1.01-1.02	<0.001
Cerebrovascular disease	-0.01	0.99	0.99-0.99	<0.001
Dementia	0.07	1.07	1.06-1.07	<0.001
Urinary tract infection	0.23	1.25	1.25-1.26	<0.001
Pneumonia	-0.04	0.96	0.96-0.96	<0.001
Sepsis	-0.03	0.97	0.97-0.98	<0.001
Obstructive pulmonary disease	-0.32	0.72	0.72-0.73	<0.001
Liver disease	-0.07	0.93	0.93-0.94	<0.001
Rheumatic disease	0.09	1.09	1.09-1.10	<0.001

Table S2. Logistic regression stratified by gout as primary or secondary diagnosis.

	Coefficient	Odds ratio	95% CI	p-value
<i>Gout as primary diagnosis</i>				
Obesity	0.13	1.14	1.12-1.17	<0.001
Dyslipidemia	0.03	1.03	1.01-1.05	0.011
Chronic kidney disease	0.09	1.10	1.07-1.12	<0.001
Diabetes mellitus	0.09	1.09	1.07-1.11	<0.001
Coronary heart disease	-0.19	0.83	0.81-0.84	<0.001
Heart failure	0.15	1.16	1.14-1.19	<0.001
Peripheral vascular disease	-0.11	0.90	0.88-0.91	<0.001
Arrhythmia	0.08	1.08	1.06-1.11	<0.001
Venous thromboembolism	0.04	1.04	1.02-1.06	<0.001
Cerebrovascular disease	-0.05	0.95	0.93-0.97	<0.001
Dementia	0.03	1.03	1.01-1.05	0.003
Urinary tract infection	0.19	1.21	1.19-1.24	<0.001
Pneumonia	-0.03	0.97	0.95-0.99	0.010
Sepsis	-0.09	0.92	0.90-0.94	<0.001
Obstructive pulmonary disease	-0.35	0.71	0.69-0.72	<0.001
Liver disease	0.06	1.06	1.04-1.08	<0.001
Rheumatic disease	0.14	1.15	1.12-1.17	<0.001
Age	0.69	1.99	1.95-2.04	<0.001
<i>Gout as secondary diagnosis</i>				
Obesity	0.23	1.26	1.26-1.27	<0.001
Dyslipidemia	0.08	1.08	1.08-1.08	<0.001
Chronic kidney disease	0.09	1.10	1.09-1.10	<0.001
Diabetes mellitus	0.19	1.21	1.20-1.21	<0.001
Coronary heart disease	-0.23	0.80	0.79-0.80	<0.001
Heart failure	0.24	1.27	1.27-1.28	<0.001
Peripheral vascular disease	-0.20	0.82	0.81-0.82	<0.001
Arrhythmia	0.00	1.00	1.00-1.01	0.113
Venous thromboembolism	0.02	1.02	1.01-1.02	<0.001
Cerebrovascular disease	-0.02	0.99	0.98-0.99	<0.001
Dementia	0.01	1.01	1.01-1.01	<0.001
Urinary tract infection	0.21	1.23	1.22-1.23	<0.001
Pneumonia	-0.07	0.93	0.93-0.94	<0.001
Sepsis	-0.03	0.97	0.97-0.98	<0.001
Obstructive pulmonary disease	-0.39	0.68	0.68-0.68	<0.001
Liver disease	-0.04	0.96	0.96-0.97	<0.001
Rheumatic disease	0.09	1.10	1.09-1.10	<0.001
Age	0.70	2.01	2.00-2.02	<0.001

Table S3. Logistic regression stratified by six groups of age.

	Coefficient	Odds ratio	95% CI	p-value
Population ≤70 years				
Obesity	0.06	1.06	1.04-1.08	<0.001
Dyslipidemia	0.01	1.01	0.99-1.03	0.488
Chronic kidney disease	0.37	1.45	1.42-1.48	<0.001
Diabetes mellitus	0.20	1.22	1.20-1.24	<0.001
Coronary heart disease	-0.30	0.74	0.73-0.76	<0.001
Heart failure	0.12	1.13	1.11-1.15	<0.001
Peripheral vascular disease	-0.13	0.88	0.86-0.89	<0.001
Arrhythmia	-0.11	0.90	0.88-0.92	<0.001
Venous thromboembolism	-0.04	0.96	0.94-0.98	<0.001
Cerebrovascular disease	-0.04	0.96	0.94-0.98	<0.001
Dementia	-0.03	0.97	0.95-0.99	0.004
Urinary tract infection	0.27	1.31	1.28-1.33	<0.001
Pneumonia	-0.01	0.99	0.97-1.01	0.213
Sepsis	0.10	1.10	1.08-1.12	<0.001
Obstructive pulmonary disease	-0.08	0.92	0.90-0.94	<0.001
Liver disease	0.01	1.01	0.99-1.03	0.511
Rheumatic disease	0.21	1.23	1.21-1.25	<0.001
Age	-0.15	0.86	0.84-0.88	<0.001
Population 71-80 years				
Obesity	0.20	1.23	1.21-1.24	<0.001
Dyslipidemia	0.04	1.04	1.03-0.06	<0.001
Chronic kidney disease	0.17	1.18	1.16-1.20	<0.001
Diabetes mellitus	0.18	1.20	1.18-1.22	<0.001
Coronary heart disease	-0.25	0.78	0.77-0.79	<0.001
Heart failure	0.17	1.19	1.17-1.21	<0.001
Peripheral vascular disease	-0.11	0.90	0.89-0.91	<0.001
Arrhythmia	0.01	1.01	1.00-1.03	0.098
Venous thromboembolism	0.00	1.00	0.99-1.01	0.853
Cerebrovascular disease	-0.04	0.96	0.95-0.98	<0.001
Dementia	-0.08	0.92	0.91-0.94	<0.001
Urinary tract infection	0.25	1.28	1.26-1.30	<0.001
Pneumonia	-0.04	0.96	0.95-0.97	<0.001
Sepsis	-0.03	0.97	0.96-0.99	<0.001
Obstructive pulmonary disease	-0.3	0.74	0.73-0.75	<0.001
Liver disease	-0.04	0.96	0.95-0.98	<0.001
Rheumatic disease	0.16	1.18	1.16-1.19	<0.001
Age	0.16	1.18	1.16-1.20	<0.001
Population 81-85 years				
Obesity	0.33	1.40	1.37-1.41	<0.001
Dyslipidemia	0.14	1.15	1.13-1.17	<0.001
Chronic kidney disease	0.06	1.07	1.05-1.08	<0.001
Diabetes mellitus	0.13	1.13	1.12-1.15	<0.001
Coronary heart disease	-0.27	0.76	0.75-0.77	<0.001
Heart failure	0.23	1.26	1.24-1.28	<0.001

Peripheral vascular disease	-0.22	0.80	0.79-0.82	<0.001
Arrhythmia	0.00	1.00	0.99-1.02	<0.001
Venous thromboembolism	0.00	1.00	0.99-1.02	<0.001
Cerebrovascular disease	-0.05	0.95	0.94-0.97	<0.001
Dementia	0.09	1.01	0.99-1.02	<0.001
Urinary tract infection	0.23	1.26	1.24-1.28	<0.001
Pneumonia	-0.09	0.92	0.90-0.93	<0.001
Sepsis	-0.07	0.93	0.92-0.95	<0.001
Obstructive pulmonary disease	-0.39	0.68	0.67-0.69	<0.001
Liver disease	-0.1	0.91	0.89-0.92	<0.001
Rheumatic disease	0.16	1.18	1.16-1.19	<0.001
Age	0.14	1.15	1.13-1.17	<0.001
Population 86-90 years				
Obesity	0.28	1.32	1.30-1.33	<0.001
Dyslipidemia	0.11	1.11	1.10-1.13	<0.001
Chronic kidney disease	0.14	1.15	1.13-1.16	<0.001
Diabetes mellitus	0.22	1.24	1.23-1.25	<0.001
Coronary heart disease	-0.23	0.79	0.78-0.80	<0.001
Heart failure	0.22	1.24	1.23-1.25	<0.001
Peripheral vascular disease	-0.22	0.80	0.79-0.81	<0.001
Arrhythmia	0.02	1.02	1.01-1.03	0.002
Venous thromboembolism	0.08	1.09	1.08-1.10	<0.001
Cerebrovascular disease	-0.03	0.97	0.96-0.98	<0.001
Dementia	0.00	1.00	0.99-1.01	0.974
Urinary tract infection	0.18	1.20	1.19-1.22	<0.001
Pneumonia	-0.12	0.89	0.88-0.89	<0.001
Sepsis	0.00	1.00	0.99-1.02	0.417
Obstructive pulmonary disease	-0.46	0.63	0.63-0.64	<0.001
Liver disease	-0.04	0.96	0.95-0.97	<0.001
Rheumatic disease	0.06	1.06	1.05-1.07	<0.001
Age	0.08	1.09	1.07-1.10	<0.001
Population 91-95 years				
Obesity	0.07	1.07	1.06-1.08	<0.001
Dyslipidemia	0.03	1.03	1.02-1.04	<0.001
Chronic kidney disease	0.02	1.02	1.01-1.03	0.002
Diabetes mellitus	0.07	1.07	1.06-1.08	<0.001
Coronary heart disease	-0.05	0.95	0.94-0.96	<0.001
Heart failure	0.07	1.07	1.06-1.09	<0.001
Peripheral vascular disease	-0.04	0.96	0.95-0.97	<0.001
Arrhythmia	-0.00	1.00	0.99-1.01	0.654
Venous thromboembolism	0.01	1.01	1.00-1.02	0.127
Cerebrovascular disease	-0.01	0.99	0.98-1.00	0.158
Dementia	0.00	1.00	0.99-1.01	0.716
Urinary tract infection	0.05	1.05	1.04-1.06	<0.001
Pneumonia	-0.02	0.99	0.98-0.99	0.003
Sepsis	-0.01	0.99	0.98-1.00	0.206
Obstructive pulmonary disease	-0.09	0.91	0.90-0.92	<0.001
Liver disease	-0.01	0.99	0.98-1.00	0.008

Rheumatic disease	0.02	1.02	1.01-1.03	0.002
Age	0.02	1.02	1.01-1.03	0.001
Population >95 years				
Obesity	0.23	1.25	1.25-1.26	<0.001
Dyslipidemia	0.17	1.19	1.18-1.20	<0.001
Chronic kidney disease	-0.05	0.95	0.94-0.96	<0.001
Diabetes mellitus	0.16	1.17	1.16-1.18	<0.001
Coronary heart disease	-0.17	0.84	0.83-0.85	<0.001
Heart failure	0.26	1.30	1.29-1.31	<0.001
Peripheral vascular disease	-0.23	0.80	0.79-0.80	<0.001
Arrhythmia	0.01	1.01	1.00-1.01	0.232
Venous thromboembolism	0.03	1.03	1.03-1.04	<0.001
Cerebrovascular disease	-0.02	0.98	0.97-0.99	<0.001
Dementia	0.02	1.02	1.02-1.03	<0.001
Urinary tract infection	0.17	1.18	1.17-1.19	<0.001
Pneumonia	-0.08	0.93	0.92-0.93	<0.001
Sepsis	-0.05	0.95	0.94-0.96	<0.001
Obstructive pulmonary disease	-0.45	0.64	0.64-0.65	<0.001
Liver disease	-0.03	0.97	0.96-0.98	<0.001
Rheumatic disease	0.03	1.03	1.02-1.04	<0.001
Age	0.26	1.29	1.28-1.30	<0.001

FIGURE LEGENDS

Figure S1. Decision tree algorithm, with six levels of decision. Orange and blue boxes are associated with males and females, respectively, while the color intensity is related to the strength of association.

Figure S2. Decision tree algorithm, with six levels of decision. Orange and blue boxes are associated with males and females, respectively, while the color intensity is related to the strength of association.

Figure S3. Decision tree algorithm, with six levels of decision. Orange and blue boxes are associated with males and females, respectively, while the color intensity is related to the strength of association.