

## EPIC II DIAGNOSES

- **100 Neurological:**
  - 101-Cerebrovascular accident: Recent stroke, by ischemic or hemorrhagic mechanism (non-traumatic), documented by CT scan and/or lumbar puncture or only by history and physical symptoms.
  - 102-Intracranial tumor: tumor documented by CT scan or MRI, malignant (primary or secondary) or not.
  - 103-Degenerative disease: includes Alzheimer's disease, Huntington's chorea, amyotrophic lateral sclerosis, multiple sclerosis, Parkinson's disease .
  - 104-Idiopathic epilepsy: history of recurrent seizures with primary lesion not detected.
  - 105-Myopathia, myasthenia gravis: acute exacerbation or progressive evolution of polymyositis, dermatomyositis, progressive muscular dystrophy, myasthenia.
  - 106-Polyneuritis and polyradiculoneuritis: includes polyneuritis due to infection, inflammation, toxic, Guillain-Barré syndrome.
  - 107-Post-anoxic coma: cerebral damage from hypoxia induced by several clinical situations, e.g., respiratory-cardiac arrest, cardiac disease with arrest, central nervous system diseases that lead to respiratory arrest (epilepsy, trauma, stroke), CO poisoning, profound hypotension.
  - 108-Delirium tremens: acute encephalopathy due to alcohol withdrawal.
  - 109-Other
  
- **200 Respiratory:**
  - 201-Exacerbation of chronic pulmonary disease: exacerbation of respiratory failure in chronic pulmonary disease (either obstructive or non obstructive) due to progressive evolution.
  - 202-Asthma attack: acute exacerbation inducing paroxysms of dyspnea, cough and wheezing.
  - 203-Pulmonary embolism: partial or complete obstruction of the pulmonary arterial blood flow by a thrombus documented by pulmonary scintigraphy and/or pulmonary angiography.
  - 204-Pleural effusion: air, blood, liquid, chyle in the pleural cavity documented by pleural tap, pulmonary radiography or CT scan.
  - 205-Obstruction: obstruction of the upper or lower airways by a foreign body. Includes obstruction of the airways by a tumor.
  - 206-Inhalation pneumonitis: induced by gastrointestinal contents, blood, smoke, and/or gases.
  - 207-Tumor: Benign or malignant.
  - 208-Other
  
- **300 Cardiovascular:**
  - 301-Acute myocardial infarction.
  - 302-Unstable angina, myocardial ischemia induced by crescendo angina, repeated attacks of severe angina, recent onset angina or early return of angina after infarction.
  - 303-Cardiopathy: includes ischemic, valvular, hypertensive, alcoholic and other, non infectious forms.
  - 304-Other
  
- **400 Renal/genito-urinary tract:**
  - 401-Acute tubular necrosis: sudden onset of renal failure during or following an acute severe illness.
  - 402-Acute glomerulopathy: acute renal failure resulting from lesions in the glomeruli.
  - 403-Interstitial nephropathy: renal failure resulting from lesions in the interstitium.
  - 404-Vascular nephropathy: renal failure resulting from lesions in the arteries (intra or extra-renal).
  - 405-Renal neoplasia
  - 406-Gynecological diseases, non malignant: lesions of ovary, uterus, cervix, vulvae, vagina not due to neoplasia.
  - 407-Gynecological diseases, malignant: lesions of ovary, uterus, cervix, vulvae, vagina due to neoplasia.
  - 408-Other
  
- **500 Hematological:**
  - 501-Transfusion reaction: includes all types of accident with transfusion of blood products.
  - 502-Drug toxicity and secondary effects: includes toxicity or secondary effects of chemotherapy and/or immunosuppressant agents and hematological toxicity of any other drugs (inducing neutropenia, thrombocytopenia.).

- 503-Non malignant disease: includes anemia (acquired or congenital), aplastic anemia, methemoglobinemia, thrombocytopenia, congenital disorders of blood coagulation factors, hypersplenism (primary), sickle cell crisis.
- 504-Malignant disease: includes lymphoma, acute leukemia and multiple myeloma
- 505-Other

- **600 Digestive:**

- 601-Cholecystitis, acute or chronic, with or without cholangitis.
- 602-Acute alcoholic hepatitis: with or without liver failure
- 603-Acute toxic, drug hepatitis: induced by drug (e.g., paracetamol/acetaminophen) or gas (e.g., fluorethane) or other (mushrooms).
- 604-Pancreatitis: includes acute or recurrent acute pancreatitis, from pancreatic edema, to edema with fat necrosis, to necrosis with variable degrees of hemorrhage documented by laboratory data and abdominal CT scan.
- 605-Esophageal, gastric varices: documented by endoscopy or surgery.
- 606-Esophageal, gastric, duodenal ulcer: documented by endoscopy or surgery
- 607-Neoplasia of the upper digestive tract (esophageal, gastric or duodenal).
- 608-Neoplasia of the lower digestive tract (colon and rectum).
- 609-Other

- **700 Metabolic:**

- 701-Drug overdose: includes all accidental or intentional drug intoxication (including overdose), by any drug.
- 702-Other intoxication, acute: by alcohol, CO inhalation, industrial, domestic, vegetable, animal products.
- 703-Adverse effects of medication: acute disease due to a drug given in normal dosage (Lyell's and Stevens-Johnson syndromes, malignant syndrome of neuroleptics).
- 704-Diabetic ketoacidosis.
- 705-Hyperosmolar diabetic coma.
- 706-Endocrinopathy: includes diseases of thyroid, pituitary gland, adrenal cortex, endocrine pancreas, parathyroids, ovaries.
- 707-Other

- **800 Pregnancy:**

- 801-Eclampsia, preeclampsia: Disorders encountered during the last trimester of pregnancy or shortly after delivery which are characterized by hypertension, edema, proteinuria (preeclampsia), convulsions and coma (eclampsia).
- 802-HELLP syndrome
- 803-Delivery hemorrhage
- 804-Other

- **900 Trauma:**

- 901-Isolated brain trauma
- 902-Monotrauma, without brain trauma
- 903-Polytrauma, without brain trauma
- 904-Polytrauma, with brain trauma
- 905-Burn
- 906-Near-drowning
- 907-Other

- **000 Other diseases**

**Description:** The acute disease should be recorded for all patients, independent of the surgical status. It is the acute (or acute on chronic) disease that best explains the reason(s) for admission. It can be medical or surgical. Only one choice is possible.

## SITE OF SURGERY

- 000 No surgery in the current hospital stay.
- **100 Neurosurgery:**
  - 101-Cerebrovascular accident: neurosurgery of intracranial hematoma or other non traumatic accident (hemorrhage, aneurysm.)
  - 102-Intracranial tumour: neurosurgery for any type of tumour primary or secondary
  - 103-Spinal surgery
  - 104-Ear, nose and throat surgery
  - 105-Maxillo-facial surgery
  - 106-Other
- **200 Thoracic surgery:**
  - 201-Pneumectomy
  - 202-Lobectomy
  - 203-Pleural surgery: includes all surgery on pleura either for tumor or talcage/abrasion for pneumothorax.
  - 204-Lung transplantation
  - 205-Other
- **300 Cardiac surgery:**
  - 301-Valvular, without coronary artery by-pass graft (CABG): surgical treatment of valvulopathies without coronary surgery.
  - 302-Valvular with CABG: valvular repair with coronary surgery.
  - 303-CABG without valvular repair.
  - 304-Other: pericardial effusion, congenital anomaly, ventricular aneurysm, neoplastic disease, vena cava clipping/filter.
  - 305-Heart transplantation
  - 306-Heart & lung transplantation
  - 307-Major aortic surgery: includes all surgery on aorta for dissection, atheroma, aneurysm.
  - 308-Carotid endarterectomy: includes all surgery on the carotid artery
  - 309-Other major vascular surgery: includes all surgery on intra thoracic or intra abdominal vessels;
  - 310-Peripheral vascular surgery: includes all surgery on non-intracranial, non-intrathoracic, non-intraabdominal vessels, either arteries or veins with or without by-pass graft.
  - 311-Other
- **400 Renal-urinary tract:**
  - 401-Renal surgery
  - 402-Urologic surgery
- **500 Orthopedic (non trauma):**
- **600 Digestive:**
  - 601-Upper gastro-intestinal surgery (up to and including the jejunum)
  - 602-Lower gastrointesinal surgery
  - 603-Biliary tract: surgery of gallbladder and/or biliary tract
  - 604-Liver: partial hepatectomy, portal-systemic shunt surgery
  - 605-Liver transplantation
  - 606-Pancreas
- **700 Metabolic:**
  - 701-Endocrine surgery (thyroid, adrenal, pancreas etc)
- **800 Ob/gyn**
  - 801-Obstetric surgery: Cesarean section, surgery for ectopic pregnancy, peri- or post-partum hemorrhage, intra-uterine death.
  - 802-Gynecological surgery: surgery of uterus, ovaries, cervix, genitalia.
- **900 Trauma**
  - 901-Brain: surgery for subdural, epidural, intracerebral haematoma or skull fracture.
  - 902-Thorax: surgery of intra-thoracic organs (either cardiac, respiratory or digestive tract) and vessels.
  - 903-Abdomen
  - 904-Limb
  - 905-Multiple
  - 906-Other

**Description:** For patients undergoing surgery the anatomical site of surgery should be indicated. Only one selection is possible. Invasive radiological procedures or definitive pacemaker insertions should not be considered as surgical procedures.

## REASON(S) FOR ICU ADMISSION

- **000 Surveillance/Monitoring only**
- **100 Neurological:**
  - 101-Coma, stupor, obtunded patient, confusion, agitation, delirium
  - 102-Seizures
  - 103-Focal neurologic deficit (hemiplegia, paraplegia, tetraplegia)
  - 104-Intracranial mass effect
  - 105-Other
- **200 Respiratory:**
  - 201-ALI and ARDS: Syndrome of inflammation and increased permeability associated with clinical, radiological and physiologic abnormalities: arterial hypoxemia resistant to oxygen therapy ( $\text{PaO}_2/\text{FiO}_2 < 300$  mmHg) and diffuse bilateral radiological infiltrates without signs of cardiac failure or pulmonary capillary hypertension (pulmonary artery occlusion pressure  $< 18$  mmHg).
  - 202-Acute respiratory failure on chronic pulmonary disease: Chronic pulmonary disease could be obstructive or restrictive.
  - 203-Other: Impaired respiratory function less than that defined by ALI, due to pulmonary lesion or pleuritis, necessitating oxygen or mechanical ventilation.
- **300 Cardiovascular:**
  - 301-Cardiac arrest: Needing cardiopulmonary resuscitation (CPR) prior to admission to ICU. CPR must include chest compression, defibrillation or cardiac massage.
  - 302-Shock: Defined by a systolic blood pressure (SBP) less than 90 mmHg or a drop in SBP of  $> 40$  mmHg from baseline with presence of clinical signs of peripheral circulatory insufficiency (cold, moist skin, cyanosis) and organ hypoperfusion (oliguria, encephalopathy, metabolic acidosis...) requiring the use of inotropic/vasopressor agents.
  - 303-Chest pain (with electrocardiographic changes compatible with either angina or acute myocardial infarction)
  - 304-Hypertensive crisis
  - 305-Arrhythmia: (due to heart rate or heart conduction disturbances)
  - 306-Cardiac failure without shock either left, right or global
  - 307-Other
- **400 Renal:**
  - 401-Pre-renal acute renal failure (induced by hypovolemia or shock.)
  - 402-Obstructive acute renal failure (post-renal acute renal failure: obstruction of the urinary tract or the intra-renal ducts.)
  - 403-Organic acute renal failure (resulting from lesions in the arteries (intra or extra-renal), in the glomeruli, or in the interstitium)
  - 404-Other
- **500 Hematological:**
  - 501-Hemorrhagic syndrome/disseminated intravascular coagulation: Induced by coagulation disorders, like thrombocytopenia and/or increase in prothrombin time and/or congenital disorders of blood coagulation factors and/or acquired disorders of blood coagulation factors.
  - 502-Severe hemolysis
  - 503-Other
- **600 Digestive/Liver:**
  - 601-Bleeding: Either upper or lower gastrointestinal tract
  - 602-Acute abdomen: Related to infection, ischemia, perforation, inflammation, either upper or lower gastrointestinal tract. Excludes severe pancreatitis
  - 603-Severe pancreatitis
  - 604-Liver failure: hepatic failure inducing metabolic disturbances and/or encephalopathy.
  - 605-Other
- **700 Metabolic:**
  - 701-Acid-base and/or electrolyte disturbance
  - 702-Hypo and hyperthermia
  - 703-Hypo and hyperglycemia (includes diabetic comas)
  - 704-Other
- **800 Ob/gyn**
- **900 Trauma**
  - 901-Severe trauma
  - 902-Other

## MICROORGANISMS

- **Gram positive**
  - 101 Staphylococcus aureus sensitive to methicillin
  - 102 Staphylococcus aureus resistant to methicillin
  - 103 Staphylococcus coagulase negative (epidermidis, haemolyticus, hominis, ...) sensitive to methicillin
  - 104 Staphylococcus coagulase negative (epidermidis, haemolyticus, hominis, ...) resistant to methicillin
  - 105 Streptococcus D group (Enterococcus faecalis, faecium) sensitive to methicillin (see 115-)
  - 106 Streptococcus, A, B, C, G group
  - 107 Streptococcus pneumoniae
  - 108 Streptococcus, others
  - 109 Cocci Gram +ve, others
  - 110 Neisseria meningitidis
  - 111 Moraxella (Moraxella catarrhalis, Moraxella spp)
  - 112 Listeria monocytogenes
  - 113 Neisseria gonorrhoeae
  - 114 Bacillus Gram +ve, others (Bacillus cereus, Bacillus spp, Corynebacterium spp, Lactobacillus, Rhodococcus equi, Nocardia spp, other)
  - 115 Streptococcus D group (Enterococcus faecalis, faecium) resistant to methicillin (see 105-)
- **Gram negative (see 216)**
  - 201 Escherichia coli
  - 202 Enterobacter (aerogenes, cloacae, agglomerans, ..)
  - 203 Klebsiella (Klebsiella pneumoniae or other)
  - 204 Proteus (Proteus morganii, Morganella morganii, Proteus indole+, Proteus mirabilis, Providencia stuartii, Providencia spp)
  - 205 Salmonella
  - 206 Serratia (Serratia marcescens, Serratia spp)
  - 207 Citrobacter (Citrobacter freundii, Citrobacter spp)
  - 208 Pseudomonas aeruginosa
  - 209 Pseudomonas, other
  - 210 Stenotrophomonas maltophilia
  - 211 Acinetobacter (baumannii or other)
  - 212 Campylobacter (Helicobacter, Campylobacter spp, Brucella spp)
  - 213 Haemophilus (influenzae or other)
  - 214 Enterobacteria, other (Yersinia spp, Shigella spp, other)
  - 215 Bacillus Gram -ve, other
  - 216 (add this code if ESBL)
- **Anaerobes**
  - 301 Clostridium (Clostridium difficile, Clostridium perfringens, Clostridium spp, Actinomyces, Propionibacterium)
  - 302 Anaerobe cocci (Peptococcus, Peptostreptococcus, Veillonella)
  - 303 Bacteroides (Bacteroides fragilis, Bacteroides melaninogenicus, Capnocytophaga, Fusobacterium spp,...)
  - 304 Anaerobe, other
- **Other organisms**
  - 401 Mycobacteria (tuberculosis or others)
  - 402 Chlamydia
  - 403 Rickettsia
  - 404 Mycoplasma (Mycoplasma pneumoniae or hominis, Rochalimeae spp, Bartonella spp)
  - 405 Legionella pneumoniae
- **Fungi**
  - 501 Candida albicans
  - 502 Candida non-albicans
  - 503 Aspergillus
  - 504 Fungi, other (Cryptococcus neoformans, Histoplasma spp...)
- **Viruses**
  - 601 HSV I, HSV II, CMV, HCV, VZV...
- **Parasites**
  - 701 Plasmodium falciparum, Pneumocystis jiroveci (carinii), Toxoplasma gondii...
- **Other**
  - 702 .....

## ANTIBIOTICS

- **1 Cephalosporins**
  - 11 cefazolin
  - 12 cefuroxime
  - 13 ceftazidime
  - 14 cefepime/cefpirome
  - 15 other cephalosporin
  
- **2 Penicillins**
  - 21 benzyl penicillin
  - 22 ampicillin
  - 23 amoxy + clavulanate
  - 24 piper + tazo
  - 25 oxa/cloxa/flucloxacillin
  - 26 other penicillin
  
- **3 Other beta-lactams**
  - 31 temocillin
  - 32 (imi/mero) penem
  - 33 aztreonam
  - 34 other
  
- **4 Aminoglycoside**
  - 41 amikacin
  - 42 tobramycin
  - 43 other
  
- **5 Quinolone**
  - 51 ciprofloxacin
  - 52 other
  
- **6 Glycopeptides**
  - 61 vancomycin
  - 62 other
  
- **7 Macrolides**
  - 71 erythromycin
  - 72 other (clarithromycin, etc)
  
- **8 Other antibiotics**
  - 81 metronidazole
  - 82 cotrimoxazole
  - 83 oxazolidinone (Linezolid)
  - 84 lipopeptide (Daptomycin)
  - 85 tigecycline
  - 86 other
  
- **9 Antifungal**
  - 91 fluconazole
  - 92 amphotericin B
  - 93 amphi lipid formulation
  - 94 caspofungin
  - 95 voriconazole
  - 96 other
  
- **10 Antiviral**
  - 101 acyclovir
  - 102 other

## **Infection Sites**

- 1 Respiratory
- 2 Abdominal
- 3 Blood stream
- 4 Renal
- 5 Skin
- 6 Catheter-related
- 7 Genito-urinary
- 8 Central nervous system
- 9 Other