

Supplemental Digital Content 2. International Classification of Diseases Codes Used to Define Post-Operative Complications

Postoperative Complication	ICD-9 Code Type	Code	Description	
Pulmonary Failure	<i>Diagnostic</i>	518.81	Acute respiratory failure	
		518.82	Other pulmonary insufficiency, NOS	
		518.84	Acute on chronic respiratory failure	
		96.04	Nonoperative insertion of endotracheal tube	
		96.05	Nonoperative other intubation of respiratory tract	
	<i>Procedure</i>	96.7	Continuous invasive mechanical ventilation of unspecified duration	
		96.71	Continuous invasive mechanical ventilation for less than 96 consecutive hours	
		96.72	Continuous invasive mechanical ventilation for 96 consecutive hours or more	
		518.5	Pulmonary insufficiency following trauma and surgery	
Pneumonia	<i>Diagnostic</i>	481	Pneumococcal pneumonia (s. pneumoniae)	
		482	Pneumonia (Klebsiella pneumoniae)	
		482.1	Pneumonia (Pseudomonas)	
		482.2	Pneumonia (H. influenzae)	
		482.3	Pneumonia Streptococcus (other than s. pneumoniae)	
		482.4	Pneumonia due to Staphylococcus	
		482.8	Pneumonia due to other specified bacteria	
		482.9	Bacterial pneumonia, NOS	
		483	Mycoplasma pneumoniae	
		483.1	Chlamydia	
		483.8	Pneumonia, other specified organism	
		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		
	507	Due to inhalation of food or vomitus (aspiration pneumonia)		
	507.1	Due to inhalation of oils and essences		
	507.8	Due to other solids and liquids		
	Myocardial Infarction	<i>Diagnostic</i>	410	AMI, anterolateral wall
			410.1	AMI, other anterior wall
410.2			AMI, inferolateral wall	
410.3			AMI, inferoposterior wall	
410.4			AMI, other inferior wall	
410.5			AMI, other lateral wall	
410.6			True posterior wall infarction	
410.7			Subendocardial infarction	
410.8			AMI, other specified sites (e.g. atrium, papillary muscle)	
410.9			AMI, NOS	
Venous Thromboembolism	<i>Diagnostic</i>	415.1	PE and infarction	
		415.11	Latrogenic PE and infarction	
		415.12	Septic PE	
		415.19	Other	
		451.11	Phlebitis and thrombophlebitis of the femoral vein	
		451.19	Other phlebitis and thrombophlebitis of the femoropopliteal, popliteal, or tibial veins	
		451.2	Phlebitis and thrombophlebitis of lower extremities, unspecified	
		451.81	Phlebitis and thrombophlebitis of Iliac Vein	
		453.8	Venous embolism and thrombosis of other specified veins	
		38.7	Interruption of the vena cava (e.g. Insertion of implant or sieve in vena cava)	
Acute Renal Failure	<i>Diagnostic</i>		Acute renal failure (Excludes: following labor and delivery [669.3], posttraumatic [958.5], 584 that complicating: abortion [634-638 with .3, 639.3], ectopic or molar pregnancy [639.3])	
		584.5	ARF with lesion of tubular necrosis	
		584.6	ARF with lesion of renal cortical necrosis	
		584.7	ARF with lesion of renal medullary [papillary] necrosis	
		584.8	ARF with other specified pathological lesion in kidney	
		584.9	ARF, NOS	
Post-operative Hemorrhage	<i>Diagnostic</i>	998.1	Hemorrhage or hematoma or seroma complicating a procedure	
		998.11	Hemorrhage complicating a procedure	
Surgical Site Infection	<i>Diagnostic</i>	998.3	Posttraumatic wound infection, NOS	
		998.3	Disruption of wound, NOS	
			Disruption of internal operation (surgical) wound (e.g. dehiscence of fascial closure or muscle flap)	
			Disruption of external operation (surgical) wound (Disruption or dehiscence of closure of skin, subcutaneous tissue)	
		998.32	skin, subcutaneous tissue)	
		998.33	Disruption of traumatic injury wound repair	
		998.5	Postoperative infection	
		998.51	Infected postoperative seroma	
		998.59	Other postoperative infection (e.g. intra-abdominal abscess, septicemia)	
		54.91	Percutaneous abdominal drainage	
GI Hemorrhage	<i>Diagnostic</i>		Esophageal hemorrhage (Excludes: 530.82 hemorrhage due to esophageal varices [456.0-456.2])	
		531.xx	Gastric Ulcer, includes 531.x0 (no mention of obstruction) and 531.x1 (with obstruction)	
		531.0x	Gastric Ulcer, Acute with hemorrhage	
		531.1x	Gastric Ulcer, Acute with perforation	
		531.2x	Gastric Ulcer, Acute with hemorrhage and perforation	
		531.4x	Gastric Ulcer, Chronic or unspecified with hemorrhage	
		531.6x	Gastric Ulcer, Chronic or unspecified with hemorrhage and perforation	
			Duodenal Ulcer, includes 532.x0 (no mention of obstruction) and 532.x1 (with 532.xx obstruction)	
		532.0x	Duodenal Ulcer, Acute with hemorrhage	
		532.1x	Duodenal Ulcer, Acute with perforation	
		532.2x	Duodenal Ulcer, Acute with hemorrhage and perforation	
		532.4x	Duodenal Ulcer, Chronic or unspecified with hemorrhage	
		532.6x	Duodenal Ulcer, Chronic or unspecified with hemorrhage and perforation	
		533.xx	Peptic Ulcer, includes 533.x0 (no mention of obstruction) and 533.x1 (with obstruction)	
		533.0x	Peptic Ulcer, Acute with hemorrhage	
		533.1x	Peptic Ulcer, Acute with perforation	
		533.2x	Peptic Ulcer, Acute with hemorrhage and perforation	
		533.4x	Peptic Ulcer, Chronic or unspecified with hemorrhage	
		533.6x	Peptic Ulcer, Chronic or unspecified with hemorrhage and perforation	
			Gastrojejunal Ulcer, includes 533.x0 (no mention of obstruction) and 533.x1 (with 534.xx obstruction)	
		534.0x	Gastrojejunal Ulcer, Acute with hemorrhage	
		534.1x	Gastrojejunal Ulcer, Acute with perforation	
		534.2x	Gastrojejunal Ulcer, Acute with hemorrhage and perforation	
534.4x	Gastrojejunal Ulcer, Chronic or unspecified with hemorrhage			
534.6x	Gastrojejunal Ulcer, Chronic or unspecified with hemorrhage and perforation			
535.01	Acute gastritis with hemorrhage			
535.11	Atrophic gastritis with hemorrhage			
535.21	Gastric mucosal hypertrophy with hemorrhage			
535.31	Alcoholic gastritis with hemorrhage with hemorrhage			
535.41	Other specified gastritis with hemorrhage			
535.51	Unspecified gastritis and gastroduodenitis with hemorrhage			
535.61	Duodenitis with hemorrhage			
578.9	Hemorrhage of gastrointestinal tract, NOS			