**“Myocardial Infarction”:** Match ICD9 category **410.xx**. We can do this using regexp, starts with “410”

ICD-9 codes for myocardial infarction (MI) fall under the category of "410.xx" and ~~"412~~." Here are the specific codes and their titles:

* 410.0: Acute myocardial infarction of anterolateral wall
* 410.1: Acute myocardial infarction of other anterior wall
* 410.2: Acute myocardial infarction of inferolateral wall
* 410.3: Acute myocardial infarction of inferoposterior wall
* 410.4: Acute myocardial infarction of other inferior wall
* 410.5: Acute myocardial infarction of other lateral wall
* 410.6: Acute myocardial infarction, true posterior wall infarction
* 410.7: Subendocardial infarction (nontransmural)
* 410.8: Acute myocardial infarction of other specified sites
* 410.9: Acute myocardial infarction, unspecified
* 412: Old myocardial infarction (for patients with a history of MI, without current signs of an acute MI) NOTE: DO NOT MATCH THIS TO THE LABEL

“**Pulmonary Embolism”:** The ICD-9 codes for pulmonary embolism (PE) are primarily found in the **415.xx** category. Here are the relevant codes and their titles:

* 415.1: Pulmonary embolism and infarction
  + 415.11: Iatrogenic pulmonary embolism and infarction (caused by medical treatment or intervention)
  + 415.12: Septic pulmonary embolism (caused by an infection in the bloodstream leading to clots in the lungs)
  + 415.13: Saddle embolus of pulmonary artery (a large clot that lodges at the bifurcation of the main pulmonary artery)
  + 415.19: Other pulmonary embolism and infarction (used for unspecified types of pulmonary embolism)

“**Pneumonia**”: ICD-9 codes for pneumonia are mainly found in the **480–486** range. Here are the relevant codes and their titles: Match any **480.xx-486.xx**

* 480.xx: Viral pneumonia
  + 480.0: Pneumonia due to adenovirus
  + 480.1: Pneumonia due to respiratory syncytial virus (RSV)
  + 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 (Streptococcus pneumoniae)
* 482.xx: 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 (other than S. pneumoniae)
  + 482.4: Pneumonia due to Staphylococcus
  + 482.8: Pneumonia due to other specified bacteria
  + 482.9: Bacterial pneumonia, unspecified
* 483.xx: Pneumonia due to other specified organism
  + 483.0: Pneumonia due to Mycoplasma pneumoniae
  + 483.1: Pneumonia due to Chlamydia
  + 483.8: Pneumonia due to other specified organism
* 484.xx: Pneumonia in infectious diseases classified elsewhere
  + 484.1: Pneumonia in cytomegalic inclusion disease
  + 484.3: Pneumonia in whooping cough
  + 484.5: Pneumonia in aspergillosis
  + 484.6: Pneumonia in other systemic mycoses
  + 484.7: Pneumonia in other infectious diseases
  + 484.8: Pneumonia in other infectious diseases not elsewhere classified
* 485: Bronchopneumonia, organism unspecified
* 486: Pneumonia, organism unspecified

**“Aortic Dissection”:** Matc**h 441.0.x** The ICD-9 codes related to aortic dissection fall under the broader category of "Diseases of Arteries, Arterioles, and Capillaries." Here are the relevant codes:

* 441.0: Aortic dissection (unspecified site)
  + 441.00: Dissection of aorta, unspecified site
  + 441.01: Dissection of thoracic aorta
  + 441.02: Dissection of abdominal aorta
  + 441.03: Dissection of thoracoabdominal aorta

“**Meningitis**”: The ICD-9 codes for meningitis are found in the **320–322** range and are categorized by the cause of the condition. Match any 320.x-322.x Here are the relevant codes:

320.xx: Bacterial Meningitis

* 320.0: Hemophilus meningitis (due to Hemophilus influenzae)
* 320.1: Pneumococcal meningitis (due to Streptococcus pneumoniae)
* 320.2: Streptococcal meningitis (other than Streptococcus pneumoniae)
* 320.3: Staphylococcal meningitis
* 320.7: Meningitis due to other specified bacteria
* 320.8: Meningitis due to other gram-negative organisms
* 320.9: Bacterial meningitis, unspecified

321.xx: Meningitis due to Other Organisms

* 321.0: Meningitis due to tuberculosis (tuberculous meningitis)
* 321.1: Meningitis due to listeria (listerial meningitis)
* 321.2: Meningitis due to cryptococcosis
* 321.3: Meningitis due to toxoplasmosis
* 321.8: Meningitis due to other specified causes (e.g., fungal meningitis)
* 321.9: Meningitis due to unspecified organism

322.xx: Meningitis of Unspecified Cause

* 322.0: Nonpyogenic meningitis (aseptic meningitis, typically viral)
* 322.1: Chronic meningitis (long-lasting meningitis of unspecified cause)
* 322.2: Meningitis, unspecified (when the cause is not clearly identified)

**“Spinal Abscess”:** This is the only “single match” to **code 324.1** . spinal column and epidural space are included under the **ICD-9 code 324.1** (Intraspinal Abscess). This code is used to classify infections that occur in the spinal canal, including:

* Epidural abscess: An abscess located in the epidural space between the dura mater (the outer covering of the spinal cord) and the vertebrae.
* Spinal cord abscess: An abscess that affects the actual spinal cord or its coverings.

**“Endocarditis”**: The ICD-9 codes for **endocarditis** are found in the **421.xx** range, covering various types of this infection of the heart's inner lining, particularly the heart valves. Here are the relevant codes:

421.xx: Acute and Subacute Endocarditis

* 421.0: Acute and subacute bacterial endocarditis (caused by bacterial infection)
* 421.1: Acute endocarditis in diseases classified elsewhere (used when endocarditis is a complication of another disease, such as rheumatic fever)
* 421.9: Acute endocarditis, unspecified (used when the type of endocarditis is not further specified)

**“Arterial Thromboembolism”:** The ICD-9 codes for **arterial thromboembolism** fall under the **444.xx** category, which includes various types of arterial embolism and thrombosis. Here are the relevant codes:

444.xx: Arterial Embolism and Thrombosis

* 444.0: Arterial embolism and thrombosis of abdominal aorta
* 444.1: Arterial embolism and thrombosis of thoracic aorta
* 444.21: Arterial embolism and thrombosis of upper extremity artery
* 444.22: Arterial embolism and thrombosis of lower extremity artery
* 444.81: Arterial embolism and thrombosis of iliac artery
* 444.89: Arterial embolism and thrombosis of other specified arteries (e.g., renal, mesenteric, or other arteries)
* 444.9: Arterial embolism and thrombosis of unspecified site