|  |  |
| --- | --- |
| **Comorbidity** | **ICD-9-CM codes** |
| **Cardiac Disease** |  |
| Heart failure, systolic | 428.2x, 428.4x |
| Heart failure, diastolic | 428.3x |
| Coronary artery disease | 410.xx, 411.00, 412.00, 414.02, 429.2, 429.7x, V45.81, V45.82 |
| Systemic hypertension, essential & hypertensive heart disease | 362.11, 401.1x-401.9x, 402.1x-402.9x, 403.1x-403.9x, 404.1x-404.9x, 405.1x-405.9x |
| Systemic hypertension, malignant  | 401.0x, 402.0x, 403.0x, 404.0x, 405.0x, 437.2 |
| **Pulmonary Disease** |  |
| Obstructive pulmonary disease, asthma | 491.2x, 493.xx |
| Obstructive pulmonary disease, non-asthma | 490.xx-491.1x, 491.8x-494.xx, 496.0, 518.1-518.2, 786.04 |
| Restrictive pulmonary disease, restrictive/interstitial | 495.xx, 500.00-506.9x, 515.0, 516.3x, 516.69, 517.2 |
| **Pulmonary Hypertension** | 416.0 |
| **Renal Disease** |  |
| Chronic renal dysfunction | 581.1-583.9, 585.x, 588.89, 588.9, 753.19, V45.1x, V56.x |
| Renal vascular disorder | 440.1, 593.81 |
| **Hepatic Disease** |  |
| Cirrhosis | 571.5-571.6, 572.3-572.4, |
| Ascites | 789.50, 789.59, 568.82 |
| Varices | 456.0-456.2x  |
| Congestive hepatopathy | 573.0, 789.1 |
| Splenomegaly | 789.2 |
| Hepatocellular carcinoma | 155.0 |
| Hepatitis A/B | 070.0x-070.3x |
| Hepatitis C | 070.41, 070.44, 070.51, 070.54, 070.7x |
| **Neurologic Disease** |  |
| Stroke/transient ischemic attack | 433.xx-434.xx, 435.8-435.9, 437.1, 437.9, 997.02, V12.54 |
| **Hematologic Disease** |  |
| Anemia | 280.xx-285.xx, 776.5 |
| **Nutritional** |  |
| Overweight, obesity | 278.0x, 649.10, V85.2x-V85.4x, V85.53-V85.54 |
| Underweight, failure to thrive | 260.x-263.x, 593.6, 779.34, 783.2x-783.3, 783.41, 783.7, V85.0, V85.51,  |
| **Endocrine** |  |
| Diabetes, type 1 | 250.x1, 250.x3, V45.85, V53.91, V65.46 |
| Diabetes, type 2 | 249.xx, 250.x0, 250.x2,  |
| Insulin resistance | 790.2x |
| Thyroid disease | 240.xx-246.xx, 794.5 |
| **Genetic Syndromes** |  |
| DiGeorge, 22q11 deletion | 279.11, 758.32 |
| Marfan | 759.82 |
| Ehlers-Danlos | 756.83 |
| Other | 756.16, 758.1x-758.31, 758.7, 759.81, 759.83 |