**SUPPLEMENTAL**

**Inclusion Criteria Codes**

* + - [I50.21](https://www.icd10data.com/ICD10CM/Codes/I00-I99/I30-I52/I50-/I50.21) Acute systolic (congestive) heart failure
    - [I50.23](https://www.icd10data.com/ICD10CM/Codes/I00-I99/I30-I52/I50-/I50.23) Acute on chronic systolic (congestive) heart failure
    - [I50.31](https://www.icd10data.com/ICD10CM/Codes/I00-I99/I30-I52/I50-/I50.31) Acute diastolic (congestive) heart failure
    - [I50.33](https://www.icd10data.com/ICD10CM/Codes/I00-I99/I30-I52/I50-/I50.33) Acute on chronic diastolic (congestive) heart failure
    - [I50.41](https://www.icd10data.com/ICD10CM/Codes/I00-I99/I30-I52/I50-/I50.41) Acute combined systolic (congestive) and diastolic (congestive) heart failure
    - [I50.43](https://www.icd10data.com/ICD10CM/Codes/I00-I99/I30-I52/I50-/I50.43) Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure
      * [I50.811](https://www.icd10data.com/ICD10CM/Codes/I00-I99/I30-I52/I50-/I50.811) Acute right heart failure
      * [I50.813](https://www.icd10data.com/ICD10CM/Codes/I00-I99/I30-I52/I50-/I50.813) Acute on chronic right heart failure
      * I11.0 Hypertensive heart disease with heart failure
      * I13.0 Hypertensive heart and chronic kidney disease with heart failure and stage 1-4/unspecified chronic kidney disease

**Exclusion Criteria Codes**

* + - I20.0 Unstable angina
    - I21 Acute myocardial infarction
    - I21.3 ST elevation (STEMI) myocardial infarction of unspecified site
    - I21.4 Non-ST elevation (NSTEMI) myocardial infarction
    - I24.9 Acute ischemic heart disease, unspecified
    - I31.4 Cardiac tamponade
    - I39 Endocarditis and heart valve disorders in diseases classified elsewhere
    - J18.9 Pneumonia, unspecified
    - N18.5 Chronic kidney disease, stage 5
    - N18.6 End stage renal disease
    - R65.21 Septic Shock
    - R57.1 Hemorrhagic Shock
    - R57.1 Hypovolemic Shock