The heart’s function is measured based upon a percentage, also known as the ejection fraction (EF). The EF is defined as the fraction of blood that is pumped out of the heart with each heartbeat from the left side of the heart. The EF plays a primary role in the diagnosis of CHF. A normal EF is classified as above 50%. Imaging studies such as an echocardiogram, cardiac MRI or a nuclear cardiac scan can estimate the EF.

<table>
<thead>
<tr>
<th>Type of heart failure</th>
<th>EF</th>
<th>Etiology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diastolic (HFpEF)</td>
<td></td>
<td>Hypertension</td>
</tr>
<tr>
<td>Systolic (HFrEF)</td>
<td>&lt; 50%</td>
<td>Related to ischemic disease such as coronary disease; or non-ischemic disease such as myocarditis</td>
</tr>
<tr>
<td>Left sided</td>
<td></td>
<td>Variable</td>
</tr>
<tr>
<td>Right sided (a result of pulmonary hypertension), also known as Cor Pulmonale</td>
<td>Typically normal EF</td>
<td>Sleep apnea, Hypertension</td>
</tr>
</tbody>
</table>

Generally, the evaluation of CHF includes:

- History intake – paying particular attention to the risk factors of the disease
- Physical examination
- Objective data such as: chest film, echocardiogram, cardiac MRI and lab work – namely a Brain Naturetic Peptide (BNP).

The severity of CHF is classified through clinical symptoms along with the New York Heart Association (NYHA) classification system:

- **Class I** – Symptoms of CHF only at activity levels that would limit normal individuals
- **Class II** – Symptoms of CHF with ordinary exertion
- **Class III** – Symptoms of CHF with less than ordinary exertion
- **Class IV** – Symptoms of CHF at rest.

The diagnosis of CHF is progressive, which requires chronic disease management. The stages of disease progression are as follows:

- **Stage A** – At high risk for CHF but without structural heart disease or symptoms of CHF
- **Stage B** – Structural heart disease but without signs or symptoms of CHF
- **Stage C** – Structural heart disease with prior or current symptoms of CHF
- **Stage D** – Refractory CHF requiring specialized interventions.

The therapeutic options for CHF include medication and device interventions. Medications such as beta blockers, Angiotensin converting enzyme inhibitors (ACE-i), Angiotensin receptor blockers (ARB’s), diuretics are used in both diastolic and systolic heart failure patients. Device interventions such as cardiac resynchronization therapy (CRT) and implantable cardiac defibrillators (ICD) are used to either improve CHF symptoms or prevent sudden cardiac death.

From a wellness standpoint, patients with CHF should be re-evaluated every 30 to 90 days. At every visit, the patient should be:

- Educated to weigh daily; data to be recorded and shared
- Encouraged to exercise daily
- Told to adhere to a salt restricted diet of no more than three grams of salt daily
- Informed to ingest no more than three liters of fluid
- Educated that the use of non-steroidal medications (NSAID’s) can lead to fluid retention and should be avoided
- Encouraged to obtain preventive vaccines.

Documentation and coding tips

- Provide clear and concise documentation
- Describe the type of CHF as systolic and/or diastolic
- Anatomically relate the CHF as left or right side
- Note the stability of the CHF presentation as being acute or chronic
- If known, link CHF to other associated conditions, i.e. Hypertension (HTN) & Chronic Kidney Disease (CKD)
- When making a diagnosis, also provide a treatment plan
- Remember that CHF is a targeted, monitored outcome for the Hospital Readmission Reduction Program as part of the Affordable Care Act
- For CHF there was no change in the code specificity from I9 to I10
- Consider with every clinical encounter:
  - Verify patient name and date of birth
  - Include date of service
  - Include provider name, credentials and signature
- A (-) dash is used instead of (X), which indicates the need for additional code characters
- Non-specific codes will be rejected in claims
- There is no need to code hypertension as malignant, benign, or unspecified
- Use additional codes to identify stage of CKD
- Heart disease must be linked to HTN by use of linkage terms such as: CHF secondary to HTN

**CONGESTIVE HEART FAILURE (CHF)**

Provider’s guide to diagnose and code CHF

**Congestive Heart Failure** is a chronic complex clinical syndrome which prevents filling or emptying of blood from the heart. CHF is caused by either a structural (valvular or congenital) and/or a dysfunctional (myocardial infarction) anomaly. The most frequently observed clinical manifestations include shortness of breath, edema and weight gain. Of those that are diagnosed about half of the patients will die within five years from their initial date of diagnosis.

HFpEF = CHF with preserved EF
HFrEF = CHF with reduced EF
GDMT = Guideline determined medical therapy
HRQOL = Health related quality of life
MCS = Mechanical circulatory support
AF = Atrial fibrillation

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**Therapy Goals**

- **Control symptoms**
- **Improve HRQOL**
- **Reduce hospital readmissions**
- **Establish patient's end-of-life goals**

**Options**

- Advanced care measures
- Heart transplant
- Chronic inotropes
- Temporary or permanent MCS
- Experimental surgery or drugs
- Palliative care and hospice
- ICD deactivation

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**At risk for heart failure**

**Stage A**

At high risk for HF but without structural heart disease or symptoms of HF

Patients with:
- HTN
- Atherosclerotic disease
- DM
- Obesity
- Metabolic syndrome

**Stage B**

Structural heart disease but without signs or symptoms of HF

Patients with:
- Previous MI
- LV remodeling including LVM and low EF
- Asymptomatic valvular disease

**Stage C**

Structural heart disease with prior or current symptoms of HF

Patients with:
- Known structural heart disease and HF signs and symptoms

**Stage D**

Refractory HF

Patients with:
- Marked HF symptoms at rest
- Recurrent hospitalizations despite GDMT

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**Therapy Goals**

- Heart healthy lifestyle
- Prevent vascular, coronary disease
- Prevent LV structural abnormalities

**Drugs**

- ACEI or ARB in appropriate patients for vascular disease or DM
- Statins as appropriate

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**ICD-10-CM codes | ICD-10-CM description | Definition/tips**

| I50.1 | Left ventricular failure | (-) Add 5th character: 0=unspecified  1=acute  2=chronic  3=acute on chronic |
| I50.2- | Systolic (congestive) heart failure | Use additional code to identify type of heart failure (I50.-) |
| I50.3- | Diastolic (congestive) heart failure | Use additional code to identify stage of CKD (N18.1-N18.4, N18.9) |
| I50.4- | Combined systolic (congestive) and iastolic (congestive) heart failure | Use additional code to identify type of heart failure (I50.-) Use additional code to identify stage of CKD (N18.1-N18.4, N18.9) |
| I50.9 | Heart failure, unspecified | Use additional code to identify type of heart failure (I50.-) |
| I11.0 | Hypertensive heart disease w/heart failure | Use additional code to identify type of heart failure (I50.-) |
| I11.9 | Hypertensive heart disease w/o heart failure | Use additional code to identify type of heart failure (I50.-) Use additional code to identify stage of CKD (N18.1-N18.4, N18.9) |
| I13.0 | Hypertensive heart and CKD w/heart failure and stage 1-stage 4 CKD, or unspecified CKD | Use additional code to identify type of heart failure (I50.-) Use additional code to identify stage of CKD (N18.1-N18.4, N18.9) |
| I13.10 | Hypertensive heart and CKD w/o heart failure, w/stage 1 - stage 4 CKD, or unspecified CKD | Use additional code to identify stage of CKD (N18.1-N18.4, N18.9) |
| I13.11 | Hypertensive heart and CKD w/o heart failure, w/stage 5 CKD, or end stage renal disease | Use additional code to identify stage of CKD (N18.5, N18.6) |
| I13.2 | Hypertensive heart and CKD w/heart failure, w/stage 5 CKD, or end stage renal disease | Use additional code to identify type of heart failure (I50.-) Use additional code to identify stage of CKD (N18.5, N18.6) |

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