Heart failure

Clinical overview

Definition[1]

Heart failure is a lifelong condition in which the heart muscle is unable to pump enough blood through the heart to meet the body's needs for blood and oxygen.

Types[2]

- **Left-sided heart failure:** The most common form of heart failure, it involves a decreased ability of the left ventricle to effectively pump blood out to the rest of the body. There are two types of left-sided heart failure.
  - **Systolic failure:** The left ventricle loses its ability to contract normally; thus, it cannot effectively pump blood out of the heart to the body.
  - **Diastolic failure:** The left ventricle loses its ability to relax normally; thus, it cannot fill with blood during the resting period between beats.
- **Right-sided heart failure:** The right side no longer pumps effectively, and blood backs up in the body's veins, causing swelling in the tissues. This form is usually due to left-sided heart failure.
- **Congestive heart failure (CHF):** A slowing of blood flow out of the heart that occurs with heart failure also can cause blood returning to the heart to slow and back up, resulting in congestion in body tissues. Often swelling, known as edema, results most often in the legs and ankles, but it can happen in other parts of the body, too.

Heart ejection fraction[3]

- Heart ejection fraction (EF) is a measurement, expressed as a percentage, of how much blood the left ventricle pumps out during systole (the phase in which the heart muscle contracts).
- A normal EF is between 55% and 70%. A person can have a normal EF measurement and still have heart failure (called HFpEF or heart failure with preserved ejection fraction). An EF measurement under 40% may be evidence of heart failure or cardiomyopathy.

Causes/risk factors[4]

- Smoking or alcohol intake
- Hypertension, obesity, diabetes
- Abnormal heart valves or heart arrythmias
- Coronary artery disease or a past heart attack
- Physical inactivity

Signs and symptoms[5]

- Shortness of breath (dyspnea)
- Persistent coughing or wheezing
- Swelling (edema)
- Increased heart rate or palpitations
- Jugular venous distention
- Lack of appetite, nausea, indigestion or sudden weight gain

Diagnostic tools[5]

- Blood testing, including B-type natriuretic peptide (BNP) test
- Chest X-ray, electrocardiogram (ECG or EKG), computed tomography (CT), magnetic resonance imaging (MRI), nuclear heart scans
- Cardiac stress testing and angiogram or catheterization

Treatment[5]

- Smoking cessation
- Exercise, weight loss and healthy low-sodium diet
- Pacemaker, implantable cardioverter defibrillator (ICD) or heart pumps (left ventricular assist devices)
- Medications linked to diagnosis (e.g., diuretics, beta blockers, angiotensin-converting enzyme [ACE] inhibitors, digoxin)
- Heart transplant, coronary bypass or valve repair

Best documentation practices for healthcare providers

Subjective
- The History of Present Illness (HPI) sets the background for the patient's presenting problem, from when first diagnosed until this encounter.
- May include Review of Systems (ROS), Past, Family, and/or Social History (PFSH), Active Problems List.
- Document the presence or absence of any current patient-reported symptoms of heart failure (e.g., shortness of breath, fatigue).

Objective
- Document any objective data to include physical exam findings (e.g., jugular venous distention, heart rate abnormalities, edema, weight gain, wheezing or crackles in the lungs, etc.) and related diagnostic testing results.

Assessment/Impression
- Document heart failure to the highest level of specificity, using all applicable descriptors (congestive, hypertensive, postoperative, acute, chronic, acute-on-chronic, diastolic, systolic, etc.).
- State the cause of heart failure, if known, using terms that clearly show cause and effect (such as "associated with," "due to," "secondary to," "hypertensive," etc.).
- Include the status of heart failure (stable, worsening, improved, in remission, compensated, decompensated, etc.).

Plan
- Document a clear and concise treatment plan for heart failure, linking related medications to the diagnosis.
- Include orders for diagnostic testing, specialist referral(s) or consultation requests.
- Address any additional steps being taken to treat the patient.[6]

ICD-10-CM coding tips

Coding heart failure
- Subcategories I5Ø.2- – I5Ø.4- include the descriptor "congestive" as a nonessential modifier. "Congestive" is a supplementary word that may be in the diagnostic statement without affecting the code number assignment.
- When the final diagnosis includes congestive heart failure along with either systolic or diastolic heart failure, only the code for the type of heart failure is assigned (systolic and/or diastolic).[7]
- The terms "heart failure" and "congestive heart failure" are often interchangeable, but clinically not the same.[8]
- Documentation of "heart failure" and "congestive heart failure" classify to the same code: I5Ø.9, Heart failure, unspecified.
- Code I5Ø.9 includes congestive heart failure; ICD-10-CM does not provide a separate code for CHF. [7]

Compensated, decompensated, exacerbation
- Compensated heart failure means the heart has developed compensatory mechanisms that permit near normal heart function.
- Decompensated" or "exacerbation" both indicate a flare-up (acute phase) of heart failure – an increase
- in the severity of heart failure or any symptoms.
- Heart failure described as currently decompensated or exacerbated is coded as acute-on-chronic.[8]

Dysfunction
- If a medical record links the type of dysfunction (diastolic or systolic) with acute or chronic heart failure – code as acute or chronic diastolic or systolic heart failure.
- Medical record documents either diastolic or systolic dysfunction as coexisting with acute or chronic heart failure but no documented linkage – Assign code I5Ø.9, Heart failure, unspecified.
- Heart dysfunction without mention of heart failure codes to I51.89, Other ill-defined heart diseases.[9]

Ejection fraction impact on code assignment

- Heart failure with preserved ejection fraction (HFpEF) is also known as diastolic heart failure and is coded as:
  - Alphabetic index: **Failure** > heart > with > preserved ejection fraction – *see* Failure, heart, diastolic
  - Tabular list: Subcategory I5Ø.3- Diastolic (congestive) heart failure
- Heart failure with reduced ejection fraction (HFrEF) is also known as systolic heart failure and is coded as:
  - Alphabetic index: **Failure** > heart > with > reduced ejection fraction – *see* Failure, heart, systolic
  - Tabular list: Subcategory I5Ø.2- Systolic (congestive) heart failure
- Heart failure with recovered ejection fraction (HFrecEF)
  - There is no specific coding path.
  - Code assignment is based on medical record documentation and specific description of heart failure.[7]

Stages[7]

- Stage A – Z91.89
- Stage B – see also Failure, heart, by type as diastolic or systolic I5Ø .9
- Stage C – see also Failure, heart, by type as diastolic or systolic I5Ø .9
- Stage D – see also Failure, heart, by type as diastolic or systolic, chronic I5Ø.84

Hypertensive heart and chronic kidney disease

- ICD-10-CM also presumes a cause-and-effect relationship between hypertension (HTN), heart disease and chronic kidney disease. These conditions should be coded as related even in the absence of physician documentation explicitly linking them, unless the documentation clearly states the conditions are unrelated.[7]

- **ICD-10-CM Section I.C.9. a.1) Hypertension with Heart Disease states:** HTN with heart conditions classified to I5Ø.-, or I51.4-I51.7, I51.89, I51.9, are assigned to a code from category I11, Hypertensive heart disease. Use additional code(s) from category I5Ø, Heart failure, to identify the type(s) of heart failure in those patients with heart failure. The same heart conditions (I5Ø.-, I51.4-I51.7, I51.89, I51.9) with hypertension are coded separately if the provider has documented they are unrelated to the hypertension. Sequence them according to the circumstances of the admission/encounter.[10]

- **ICD-10-CM Section I.C.9. a.3) Hypertensive Heart and Chronic Kidney Disease**: Assign codes from combination category I13, Hypertensive heart and chronic kidney disease, when there is hypertension with both heart and kidney involvement. If heart failure is present, assign an additional code from category I5Ø to identify the type of heart failure. The appropriate code from category N18, Chronic kidney disease, should be used as a secondary code with a code from category I13 to identify the stage of chronic kidney disease. The codes in category I13, Hypertensive heart and chronic kidney disease, are combination codes that include hypertension, heart disease and chronic kidney disease. The Includes note at I13 specifies that the conditions included at I11 and I12 are included together in I13. If a patient has hypertension, heart disease and chronic kidney disease, then a code from I13 should be used, not individual codes for hypertension, heart disease and chronic kidney disease, or codes from I11 or I12.[10]

Additional reminders

- Note: Heart failure stages A, B, C and D are based on the American College of Cardiology and American Heart Association stages of heart failure, which complement and should not be confused with the New York Heart Association Classification of Heart Failure, into Class I, Class II, Class III and Class IV.[7]
- It is not appropriate to code heart failure based on the coder's own clinical interpretation of documented signs, symptoms or lab values. Rather, code assignment is strictly based on the specific description and stage of heart failure documented by the healthcare provider.

Coding examples

Example 1	
Medical record documentation	Chief complaint: Patient here for heart failure follow up Review of Symptoms: Denies chest pain Physical exam: Cardio- regular rate and rhythm Impression: Decompensated congestive heart failure associated with diastolic dysfunction
ICD-10-CM code	**I5Ø.33** Acute on chronic diastolic (congestive) heart failure
Rationale	• Congestive heart failure described as "decompensated" indicates a flare-up *(acute phase)* of heart failure—an increase in the severity of heart failure or any symptoms • When heart failure is described as currently decompensated, code as acute-on-chronic. • When a medical record links diastolic dysfunction with acute or chronic heart failure, it should be coded as acute-on-chronic diastolic heart failure.[8]

Example 2	
Medical record documentation	67-year-old female sent here on a referral from her PCP. Patient is lightheaded. We had her lie down. Review of most recent echo showed mild mitral valve regurgitation and decreased systolic contractions. Assessment: Chronic systolic heart failure exacerbation being followed by cardiology – Start amlodipine and furosemide. Encouraged her to go to ED for her lightheadedness.
ICD-1 0-CM code	**I5Ø.23** Acute on chronic systolic (congestive) heart failure
Rationale	When heart failure is described as currently decompensated or exacerbated, it should be coded as acute-on-chronic.[8]

Example 3	
Medical record documentation	Mr. Smith is here for his Annual Wellness Visit. Review of Symptoms: negative with exception to HPI History of present illness: 75-year-old male with history of CHF, non-small cell lung cancer, myocardial infarction in 2014. Physical exam states weight is 230 pounds, blood pressure 136/88, heart rate 81. Normal S1 and S2 without extra heart tones, murmurs or rubs. Remainder of exam unremarkable. Chronic diastolic heart failure with recovered ejection fraction refilled medications and ordered repeat echo.
ICD-10-CM code	**I5Ø.32** Chronic diastolic (congestive) heart failure
Rationale	AHA Coding Clinic advises to assign code I5Ø.32, Chronic diastolic (congestive) heart failure, for a diagnosis of congestive heart failure with a recovered EF. Subcategory I5Ø.3, Diastolic (congestive) heart failure, has inclusion terms for heart failure with normal ejection fraction.[11]

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