# Accurately Diagnosing and Coding Heart Failure

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#### **Clinical Signs of Heart Failure**



#### Diagnosis of Heart failure (ESC guidelines 2012)

The diagnosis of heart failure with reduced systolic function requires three conditions to be satisfied:

1. Typical symptoms of heart failure (e.g. dyspnoea, fatigue)

2. Signs typical of heart failure (e.g ankle swelling, raised JVP, pulmonary congestion)

3. Reduced or impaired LV ejection fraction/LV systolic function

The diagnosis of heart failure with normal or preserved systolic function requires four conditions to be satisfied:

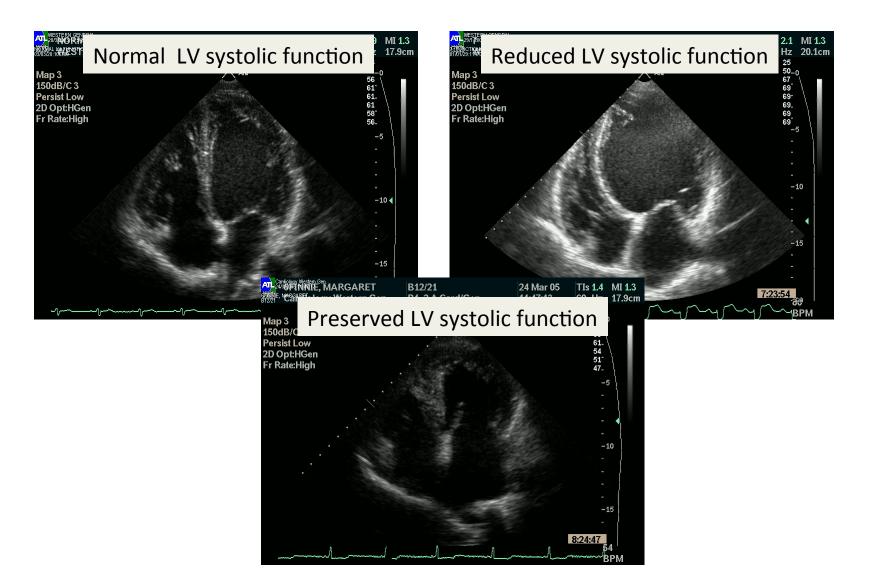
1. Typical symptoms of heart failure (e.g. dyspnoea, fatigue)

2. Signs typical of heart failure (e.g ankle swelling, raised JVP, pulmonary congestion)

3. Normal or only mildly reduced LV systolic function

4. Relevant structural heart disease (e.g hypertrophy, LA enlargement, valvular regurgitation)

### Echocardiography



### **Current SMR01 Coding**

ICD-10 Code	Description
111.0	Hypertensive heart disease with (congestive) heart failure
113.0	Hypertensive heart and renal disease with (congestive) heart failure
113.2	Hypertensive heart and renal disease with both (congestive) heart failure and renal failure
125.5	Ischaemic cardiomyopathy
142.0	Dilated cardiomyopathy
142.9	Cardiomyopathy, unspecified
150.0	Congestive heart failure
150.1	Left ventricular failure
150.9	Heart failure, unspecified

#### **SPSP Heart Failure Bundle**

1. Confirmed diagnosis of congestive cardiac failure

2. Echocardiography confirming Left Ventricular Systolic Dysfunction

Recommendation	Action	Notes	Date/ Initials/ Designation
Expert review during admission	NYHA class documented	On admission: I II III IV On discharge: I II III IV	
	Aetiology reviewed		
	Further investigations for reversible causes completed	Chest X Ray FBC U&E LFT's TFT's Troponin Glucose & Cholesterol	
	Diuretic therapy carefully adjusted	IV Oral Dose optimised ?Dry weight	
	DVT prophylaxis given		
Evidence based drugs prescribed	ACE inhibitor or ARB prescribed Beta blocker prescribed	Yes/ No Contraindicated Yes/ No Contraindicated	
	Spironolactone prescribed	Yes/ No Contraindicated	
Referral to Heart Failure Nurse Service	Referral letter or telephone call to HF nurse team prior to discharge		

# Rationale for coding change

- Current coding is unable to distinguish heart failure with reduced ejection fraction (LVSD) from HF with preserved ejection fraction
- 40% of patients discharged with code I50.0 have preserved ejection fraction
- Scottish Patient safety Program Heart Failure bundle focuses on HF with reduced ejection fraction

### Modified coding

Fifth digit	Description of LV function
0	<b>Reduced Ejection Fraction</b>
1	Preserved Ejection Fraction
9	No statement indicating preserved or reduced LV ejection fraction

#### EXAMPLES

- Patient presenting to hospital with clinical heart failure secondary to previous myocardial infarction with reduced ejection fraction (reduced systolic function) documented by echocardiography
  - Current code: I50.0 or 125.5
  - New code: I50.00 or I25.50
- Patient with hypertension presenting with clinical heart failure with normal systolic function by echocardiography
  - Current code I11.0 or I50.0
  - New code I11.01 or I50.01
- Patient with poorly controlled atrial fibrillation presenting with clinical heart failure and echocardiography showing normal LV systolic function
  - Current code : I50.9 ( and I48 for atrial fibrillation)
  - New code I50.91 (and I48 for atrial fibrillation)

# Other clinical terms

#### **Reduced Ejection Fraction – other terms**

For coding purposes any of the following descriptions should be regarded as being synonymous with 'reduced ejection fraction':

#### Left ventricular

- dysfunction
- systolic dysfunction (LVSD)
- systolic impairment

Impaired or reduced

- LV function
- LV systolic function
- systolic function

#### **Preserved Ejection Fraction – other terms**

For coding purposes any of the following descriptions should be regarded as being synonymous with 'preserved ejection fraction':

Preserved	Normal
- LV function	<ul> <li>ejection fraction</li> </ul>
- systolic function	- LV function
	- systolic function

Note : 'Diastolic heart failure' should be coded as heart failure with preserved ejection fraction.

#### All doctors

#### REMEMBER TO INCLUDE A DESCRIPTION OF LV FUNCTION (*PRESERVED* or *REDUCED* EJECTION FRACTION) IN ALL DISCHARGE LETTERS MENTIONING HEART FAILURE IN THE DIAGNOSTIC LIST