HF updates

European society of Cardiology released guidelines for diagnosis and management of patients with HF. Few excerpts to guide the doctors have been presented here.

Definition-

HF is a clinical syndrome characterized caused by a structural and/or functional cardiac abnormality,* resulting in a reduced cardiac output and/ or elevated intra-cardiac pressures at rest or during stress.

* Structural and/or functional cardiac abnormality-

Abnormality in Myocardium, valves, pericardium, endocardium, heart rhythm and conduction

Definition of heart failure with preserved (HFpEF), mid-range (HFmrEF), reduced ejection fraction (HFrEF):

Type of HF		HFrEF	HFmrEF	HFpEF
CRITERIA	1	Symptoms±Signs[a]	Symptoms±Signs[a]	Symptoms±Signs[a]
	2	LVEF<40%	LVEF 40-49%	LVEF≥50%
	3	-	1. Elevated levels of natriuretic peptides[b] 2. At least one additional criterion: a. relevant structural heart disease (LVH and/or LAE) b. diastolic dysfunction	1. Elevated levels of natriuretic peptides[b] 2. At least one additional criterion: a. relevant structural heart disease (LVH and/or LAE) b. diastolic dysfunction

BNP = B-type natriuretic peptide; HF = heart failure; HFmrEF = heart failure with mid-range ejection fraction; HFpEF = heart failure with preserved ejection fraction; HFrEF = heart failure with reduced ejection fraction; LAE = left atrial enlargement; LVEF = left ventricular ejection fraction; LVH = left ventricular hypertrophy; NT-proBNP = N-terminal pro-B type natriuretic peptide.

[a]Signs may not be present in early stages of HF (especially in HFpEF) and in patients treated with diuretics

[b]BNP>35pg/ml and/or NT-proBNP>125 pg/ml.

Signs and Symptoms-

Symptoms (e.g. breathlessness, ankle swelling and fatigue)

Signs (e.g. elevated jugular venous pressure, pulmonary crackles and peripheral oedema)

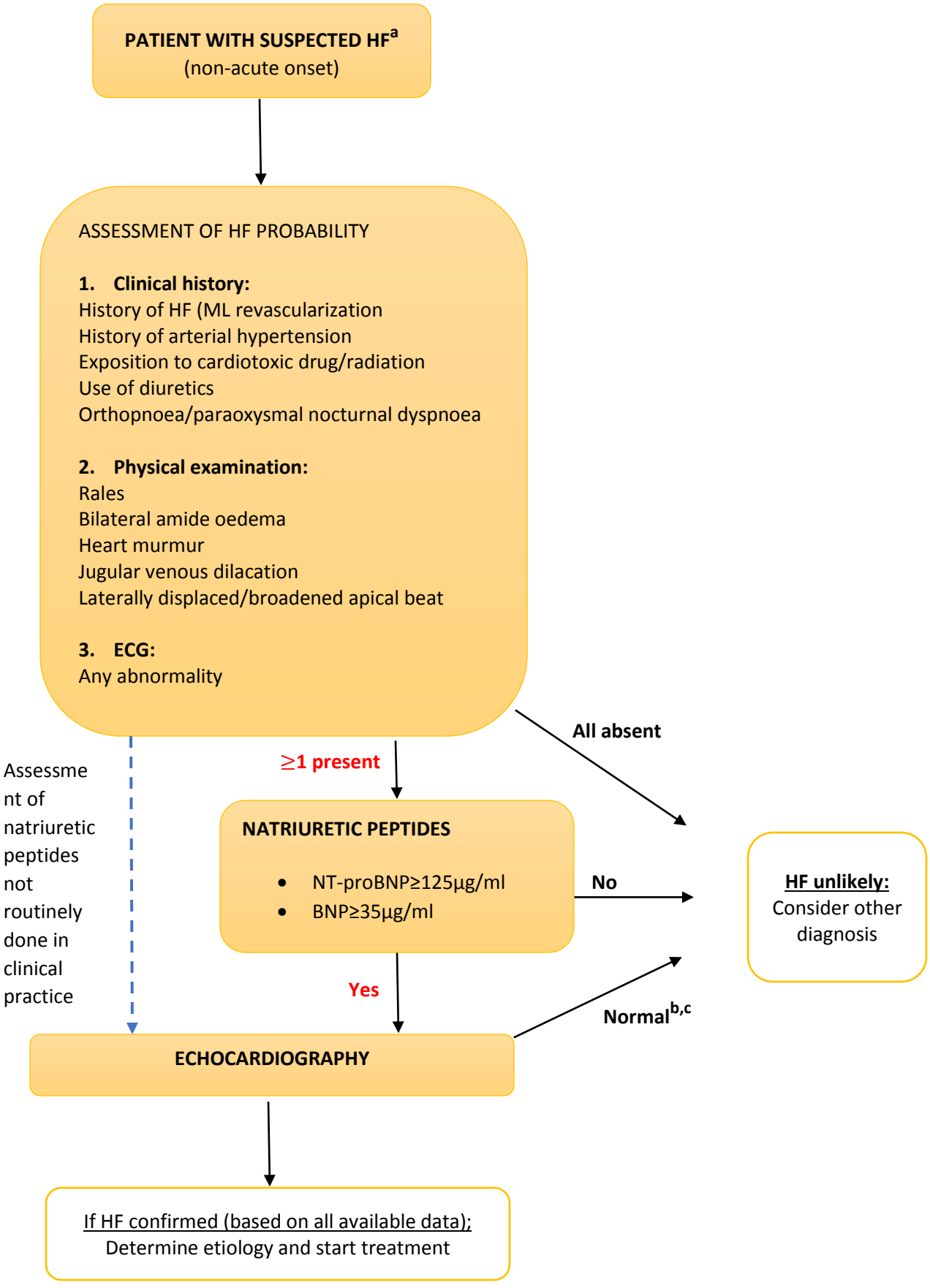
Symptoms of heart failure:

Symptoms	Signs
Typical	**More specific**
Breathlessness Orthopnoea Paroxysmal nocturnal dyspnea Reduced exercise tolerance Fatigue, tiredness, increased time to recover after exercise Ankle swelling	Elevated jugular venous pressure Hepatojugular reflux Third heart sound (gallop rhythm) Laterally displaced apical impulse
Less typical	**Less specific**
Nocturnal cough Wheezing Bloated feeling Loss of appetite Confusion (especially in the elderly) Depression Palpitations Dizziness Syncope Bendopnoea	Weight gain (>2 kg per week) Weight loss (in advanced HF) Tissue wasting (cachexia) Cardiac murmur Peripheral oedema (ankle, sacral, scrotal) Pulmonary crepitations Reduced air entry and dullness to percussion at lung bases (pleural effusion) Tachycardia Irregular pulse Tachypnoea Cheyne Stokes respiration Hepatomegaly Ascites Cold extremities Oliguria Narrow pulse pressure

DIAGNOSIS

It is based on the clinical history and examination followed by investigations such as ECG and ECHO. ECHO is usually diagnostic. Further evaluation is necessary to find out the causes of HF. Since the treatment of HF is based on its etiology.

Diagnosis algorithm for a diagnosis of heart failure of non-acute onset:



BNP = B-type natriuretic peptide; CAD = Coronary Artery Disease; HF = heart failure; MI = myocardial infarction; NT-proBNP = N-terminal pro B-type natriuretic peptide

[a]Patient reporting symptoms typical of HF

[b]Normal ventricular and atrial volumes and function

[c]Consider other causes of elevated natriuretic peptides

Management-

It is prudent to refer the patient diagnosed with HF to experts from the field of cardiology for further evaluation and treatment. Regular follow up is necessary.

For doctors interested in reading in detail. Kindly check the source.

Source:

The Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC). 2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure. European Heart Journal (2016) 37, 2129–2200.
Available at: https://academic.oup.com/eurheartj/article/37/27/2129/1748921