Chronic Heart Failure: Diagnosis and Treatment Algorithm 2020¹

adapted from ESC HF guideline 2016²

Normal

Normal

Additional diagnostic tests

in selected cases

Algorithm for the diagnosis of Heart Failure with Reduced Ejection Fraction (HF-REF) or LVEF<40%*

General Assessment

- Risk factor profile (hypertension etc.)
- Family History
- Recent pregnancy < 1 year
- Previous chemotherapy

Symptoms

- Shortness of breath on effort
 - lying flat
 - during the night
- New cough
- Ankle swelling
- Irregular or fast palpitation
- Effort fatigue
- More frequent nocturia

Signs

Signs of congestion:

- raised JVP
- peripheral oedema
- (tender) hepatomegaly
 ascites

Chest signs:

- inspiratory crackles
- pleural effusion

Signs of heart disease:

- tachycardia
- presence of S3
- displaced apex beat
 cool peripheries
- presence of cardiac murmur

Holistic Care

- Fluid restriction ≤ 1.5L
- Salt restriction (in hypertensives only)
- Exercise (once stabilised)
- Heart failure management programme
- Avoid : NSAID, glitazones, CCB (except amlodipine, felodipine)
- Palliative care



* Patient with HFmrEF (EF 40-49%) can be treated similarly



Management of HF-REF

Therapy that reduces: Mortality

ARNI ACE-I / ARB Aldosterone Antagonist (MRA) Hydralazine + Nitrate

HF-REF unlikely

HF-REF excluded

Referral to specialist for e.g.

CT Coronary Angiogram,

cardiac catheterisation, MRI, endomyocardial biopsy

Cardiac resynchronisation therapy (CRT-P/D)

SGLT2 Inhibitor

Hospitalisation

Ivabradine Digoxin

AF Management

Cardioversion AFlutter RF ablation Pulmonary vein isolation

Symptoms

Diuretic

I.V. Iron

Surgical

Valvular intervention LV assist device

Heart transplant

Precipitating Factors

Mandatory: U & E and creatinine, Glucose, TSH, FBC

Possible: LFT, Iron study, Calcium, hsTroponin T, Trop I

Suspected Heart Failure / LV Dysfunction because of signs and symptoms

Assess presence of cardiac disease

by ECG, CXR and/or NTproBNP / BNP

Any abnormalities

Imaging by

Echocardiography

LVEF<40%

Assess aetiology, precipitating

factor/s and NYHA functional class

Choose THERAPY

Special consideration

Digoxin (AF, resistant symptomatic heart failure)

Warfarin (AF, LV clot) NOAC (Non-valvular AF)

Amiodarone (sustain sinus rhythm

and reduce VT in ICD patients) **Aldosterone antagonist** (Early post-MI heart failure)

ACE-I + ARB if Aldosterone antagonist (MRA) cannot be used













