Congestive Heart Failure

Classification Schemes

AHA/ACC Classification

- Stage A: At risk for heart failure, No symptoms, No signs of HF, No structural or functional HF, no abnormal biomarkers
- Stage B: Pre-heart failure: Stage A + either of the following:
  a. Structural heart disease: Reduced LV or RV function (reduced EF or reduced strain), LVH or RVH, Chamber enlargement, wall motion abnormalities, valvular heart disease,
  b. evidence of increased filling pressures: invasive measurement or Echo
  c. Risk factors + increased BNP or high troponin w/o competing diagnoses.
- Stage C: Symptomatic heart failure – current or previous
- Stage D: advanced heart failure – affects daily life, hospitalizations despite GDMT

NYHA Classification

- Class I: no limitations
- Class II: slight symptoms with ordinary activity
- Class III: symptoms with less than ordinary activity.
- Class IV: symptoms with minimal activity and/or at rest.

Echo Based Classifications

- HFrEF = EF<40%
- HmrEF = EF 41-49%
- HFpEF = EF>50
- HFimpEF – EF previously <40% but now over 40%.

Symptoms

Shortness of Breath
Dyspnea on Exertion
Bloating
Early Satiety
Edema
Decreased exercise tolerance
Paroxysmal nocturnal dyspnea
Bendopnea
Cough

Exam Findings

Elevated BP
Elevated HR
Low O2 sats
JVP
JVD
Valvular Dysfunction (murmurs)
Crackles
Dyspnea
Tachypnea
S3
S4
Hepatojugular Reflux (HJR)
Peripheral pitting edema

Testing

Initial Testing:
CBC, CMP, BNP, Lipids, HgA1c, TSH, Iron Studies, CXR (2 view), EKG, TTE

Additional testing:
Ischemic evaluation - if chest pain, new LBBB, new HFrEF, angina
Urine Drug Screen (based on history)
Secondary HTN workup (if over 3-4 meds and BP uncontrolled.

Routine Follow-up testing:
CBC annually, BMP semiannually or with medication changes (ACEi/ARBs/Diuretics), TSH annually (if on amiodarone)

Management Principles

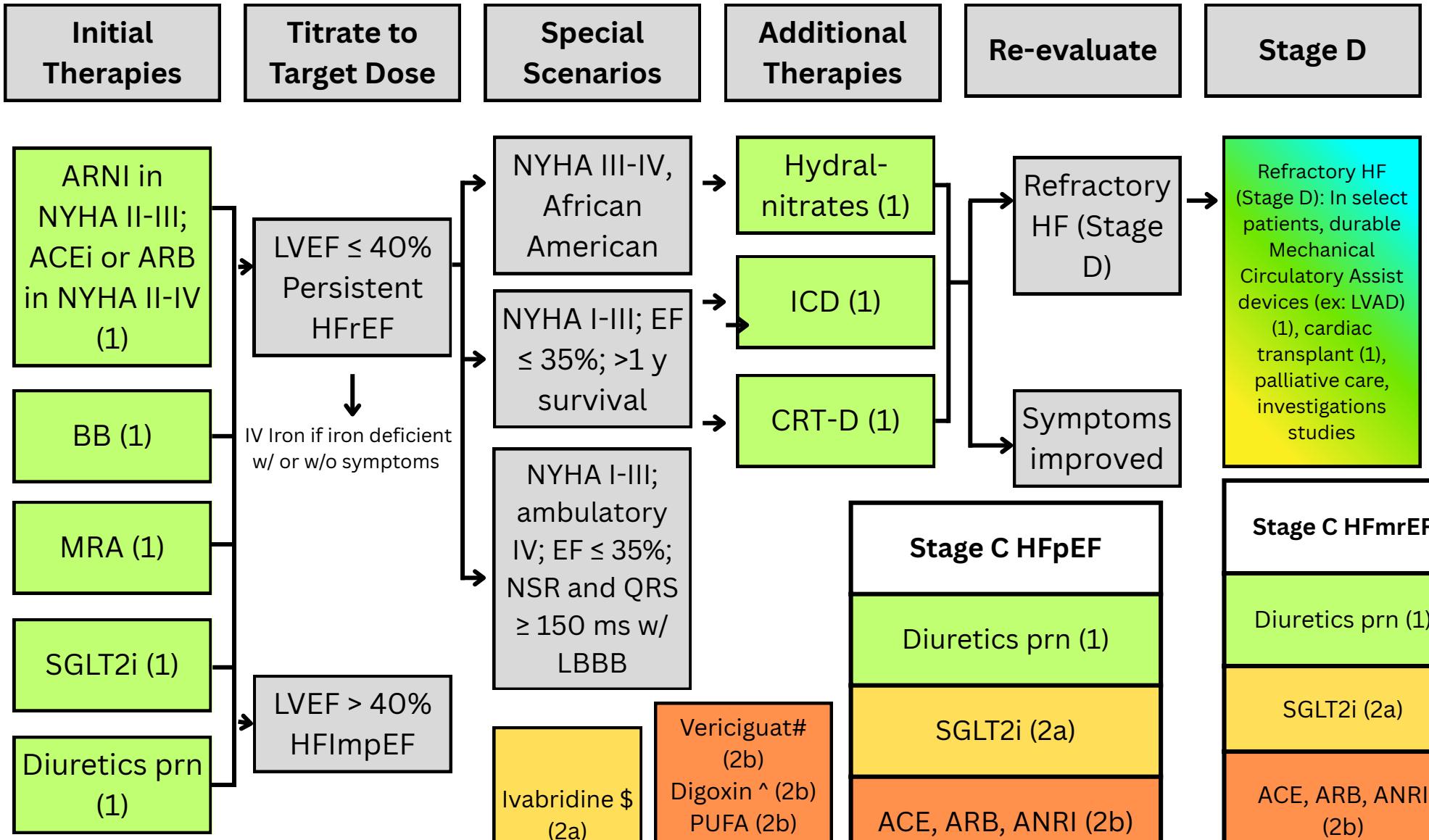
All Patients:

Dietary changes – DASH diet / Mediterranean Diet; Exercise regimen, Smoking cessation, ETOH reduction, THC cessation, Vaping cessation, Stress management, Depression/anxiety management, Caffeine reduction, Sleep hygiene.

	NYHA Class I	NYHA Class II	NYHA Class III	NYHA Class IV
Stage A	• TLC • BP control (ACEi/ARB preferred) • Lipid control (statin preferred) • BS control - SGLT2i preferred	ACEi or ARB EBM Bblocker SGLT2i	N/A	N/A
Stage B	• TLC • BP control (ACEi/ARB preferred) • Lipid control (statin preferred) • BS control - SGLT2i preferred • ICD (>1yr survival, 40d post MI, EF<30%)	ACEi/ARB EBM Bblocker SGLT2i Ivabridine ICD (EF <30%)	N/A	N/A
Stage C	ACEi/ARB EBM Bblocker SGLT2i Diuretic prn Hydralazine+nitrate (back) ICD(LVEF<30%)	ARNI EBM Bblocker MRA SGLT2i Diuretic prn Hydral+nitrate (back) Ivabridine$ Vericiguat# ICD + CRT (back) PUFA	ARNI EBM Bblocker MRA SGLT2i Diuretic prn Hydral+nitrate (back) Ivabridine$ Vericiguat# ICD + CRT (back) PUFA Digoxin ^	ARNI EBM Bblocker MRA SGLT2i Diuretic prn Hydralazine+nitrate Ivabridine$ Vericiguat# CRT (EF<35% and ambulatory) Digoxin ^ PUFA
Stage D	N/A	N/A	III C items Cardiology Consultation Palliative Care Consult	IV C items Cardiology Consultation Palliative Care Consult

Stage C/D Heart Failure

Stage C HFrEF



1 - strong

2a - Moderate

2b weak

$ = If pt is in NSR, HR>70 despite max tolerated EBM BB.

= Use in Patients with HFrEF, Stage C, Class II-IV, for worsening symptoms despite GDMT

^ = Use if EF <40% (HFrEF) stage C and still symptomatic despite GDMT to reduce hospitalizations

References: 2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure