PharmD Academy Presents:
The Guideline Capsule

Heart Failure Pharmacotherapy

Goal: To Increase Cardiac Output (CO)

Stage

A
At risk for HF
- No HF signs/symptoms
- No structural/functional heart disease
- No abnormal biomarkers

B
Pre-HF
- No HF signs/symptoms
- ONE of the following: (1) Structural heart disease (2) Filling pressures (3) Risk factors PLUS ↑ natriuretic peptides OR persistently ↑ cardiac troponin w/o competing diagnosis

C
Symptomatic HF
- Structural heart disease AND
- Current or previous HF symptoms

D
Advanced HF
- HF symptoms interfering with normal activity and/or recurrent HF hospitalizations (despite GDMT)

Management

A
- Control BP in patients with hypertension
- SGLT2i in patients with T2DM plus:

◯ Established CVD or,
◯ High CV risk

- Manage existing comorbidities

B
ACEi & evidence-based BB in patients with LVEF ≤ 40%
◯ If LVEF ≤ 40% and recent MI, use ARB if ACEi is not tolerated

C — **HFpEF**
- SGLT2i in all patients with HFpEF (unless contraindicated)

◯ May consider MRA and/or ARNi if LVEF < 55–60%
◯ May consider regardless of LVEF for female patients
◯ May consider ARB if unable to receive ARNi therapy

- PRN loop diuretic

C — **HFmrEF**
PRN diuretics (loop preferred)
- SGLT2i may be beneficial
- May consider MRA, ACEi/ARB/ARNi, and evidence-based BB particularly if LVEF is closer to HFrEF threshold

C — **HFimpEF**
Continue GDMT
Even if asymptomatic

Stage C - HFrEF

All Patients

ARNi or ACEi or ARB
- ARNi: NYHA class II–III
- ACEi or ARB: NYHA class II–IV
- Order of preference: ARNi > ACEi > ARB
- 36-hour washout required when switching between ACEi and ARNi (and vice versa)

Beta Blocker (evidence-based)
- Bisoprolol, carvedilol, metoprolol succinate

MRA (e.g., eplerenone, spironolactone)
- NYHA class II–IV
- eGFR > 30 mL/min/1.73m2
- Serum potassium < 5 mEq/L

SGLT2i: With or without T2DM

Diuretics (as needed)
- Loop diuretics preferred

Specific Patients

Hydralazine + isosorbide dinitrate
- African American patients on optimal therapy
- NYHA class III–IV

Ivabradine
- NYHA class II–III and LVEF ≤ 35%
- On GDMT including max tolerated BB
- NSR with resting HR ≥ 70 BPM

Vericiguat
- NYHA class II–IV and LVEF < 45%
- Recent HF worsening
- BNP or NT-proBNP

Digoxin
- If symptomatic despite GDMT or
- Unable to tolerate GDMT

Potassium binders
- e.g., Patiromer, sodium zirconium cyclosilicate
- Patients with hyperkalemia (K+ ≥ 5.5 mEq/L) while on RAASI

Selected Medications That May Cause or Exacerbate HF

COX inhibitors (e.g., NSAIDs)
- ↑ H2O retention, ↑ vascular resistance, ↓ response to diuretics

Thiazolidinediones
- Potential blockage of calcium channel

Saxagliptin, Alogliptin

Flecainide, Disopyramide
- Proarrhythmic, negative inotropic effects

Sotalol
- Proarrhythmic effects, beta blockade

Dronedarone
- Negative inotropic effects

Doxazosin
- Beta-1 stimulation, ↑ renin and aldosterone