

HEART FAILURE

Systolic HF

- HfrEF: EF < 40%
- Inability to eject blood from LV
 - Contraction problem
- Mostly male, CAD
- Enlarged heart (cardiothoracic ratio > 0.55)
 - Thin, dilated LV walls



ACEI

Drug	Start dose	Target dose
Captopril	6.25 – 12.5 mg tid	25 – 50 mg tid
Enalapril	1.25 – 2.5 mg bid	10 mg bid
Ramipril	1.25 – 2.5 mg bid	5 mg bid (10 mg od)
Trandolapril	1 mg od	4 mg od

PLUS BETA-BLOCKER

Drug	Start dose	Target dose
Carvedilol	3.125 mg bid	25 mg bid
Bisoprolol	1.25 mg od	10 mg od
Metoprolol CR/XL	12.5 – 25 mg od (12.5 mg BID)	200 mg od (100 mg BID)

- ARB if intolerant to ACEI
- Hydralazine/nitrate in African American pts intolerant to ACEI/ARB



ADD MRA

Spironolactone 25 mg once daily



ADD ARB

Drug	Start dose	Target dose
Candesartan	4 mg od	32 mg od
Valsartan	40 mg bid	160 mg bid

May add **digoxin** instead if pt could not tolerate addition of ARB (ex/ low BP or hyperK)



SWITCH ACEI/ARB TO ENTRESTO

- Digoxin (morbidity for sx control)
- Furosemide (fluid overload)

Acute Decompensated HF

Congestion

↑ JVD, + HJR, peripheral edema, S3, DOE/SOA, orthopnea/PND, rales, recent weight gain, ascites

Perfusion ↑

Dry & Warm	Wet & Warm
Dry & Cold	Wet & Cold

Low perfusion: cool extremities, low urine output, altered mental status, inadequate response to IV diuretic

PRECIPITATING FACTORS:

Anemia, ischemia, arrhythmia, infection, adherence, drugs (non-DHP CCB, corticosteroids, BBs, Gliptins, Glitazones Class I antiarrhythmics, doxorubicin, NSAIDS (KID-INC)*)

* order from worst to best NSAID (best = celecoxib)



FUROSEMIDE IV BOLUS (high dose)

Monitor S/S, vitals and urine output* 2-3 x daily
Monitor weight and labs daily

* urine output: > 500 mL in first 2h (> 250 mL if SCr > 220)



ADD SECOND DIURETIC

Metolazone



ADD VASODILATOR

Nitrates IV

Generally avoided but can be used in:

- Advanced HF pts with ↓ peripheral perfusion (low cardiac output)
- Pts unresponsive or intolerant to vasodilators



ULTRAFILTRATION



ADD INOTROPES

Dobutamine, Milrinone

Diastolic HF

- HfpEF: EF > 50%
- Inability to fill LV
 - Relaxation problem
- Mostly female, HTN
- Normal heart size on CXR
 - Thick, stiff hypertrophied LV



NO DRUGS FOR MORTALITY

ONLY MORBIDITY BENEFITS:

Candesartan
Furosemide
Spironolactone