Heart Failure - Chronic

Reduced EF: loose ability to contract
Preserved EF: loose ability to relax

Causes

Ischemic
- infarct (acute coronary syndrome)

Non-Ischemic
- HTN
- Genetics
- Meds

Assessment

S/Sx
- SOB
- Fatigue
- Peripheral edema
- Orthopnoea (SOB laying flat)
- JVP > 3 cm
- Crackles

Labs
- NT-proBNP ≥125pg/mL
- BNP ≥35pg/mL

Chest X-Ray
- pleural effusion

Classification

"XX has stage X, NYHA Class X HF_EF 2° to ____"

NYHA
1: asymptomatic
2: mild Sx → some SOB w activity
3: moderate Sx → SOB w < ordinary activity
4: severe → SOB at rest

Stage
A: at risk only
B: pre-HF (abnormal findings)
C: HF
D: advanced HF

EF = SV/EDV
HFpEF: ≥50%
HFmrEF: 41-49%
HFimpEF: ≤40% but ↑ by 10-40% w rx
HFrEF: ≤40%

HFrEF - Rx

Standard Therapies: all reduce mortality & hospitalization

1) ACEI/ARB + BB + MRA + SGLT2i
↳ start all at low doses then titrate q2wks

Step 1 ACEI/ARB + BB + MRA + SGLT2i — at lowest dose over 2-3 outpatient encounters in 1st month
↓ if ø improved
↳ only bisoprolol or carvedilol

Step 2 Cardiology/GIM visit to Δ ACEI/ARB to ARNI — (assuming public coverage only if special authority application by a cardiologist or internist)
↳ need 36h washout if ACEI → ARNI

Step 3 Up-titrate 1-2 drugs 1 level every ~2 weeks (weekly if possible)

Note:
If SBP < 100mmHg: start MRA or SGLT2i
If K^+ ≥5.5: start SGLT2i or switch ACEI → ARNI
If pt in acute HF, ø start BB

Individualized Therapies
↳ therapies to be added to standard therapies if HF still ø controlled

Loop Diuretic
When?
- S/Sx of fluid overload

Digoxin
When?
- on optimal standard therapy
  OR
- atrial fib & ø controlled by BB
- ø tolerate BB

Ivabradine
When?
- sinus rhythm & HR ≥70

Hydralazine-nitrate
When?
- black patients w worsening Sx (↓ mortality)
  OR
- ø tolerate ACEI/ARB/ARNI

Other Therapies
Omega 3: doses >3g/d risk of bleeding
CCB: ø ↓ mortality; only use is angina or uncontrolled HTN
Amiodarone: maintain sinus rhythm w AF

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