Firelands Regional Medical Center School of Nursing
AMSN 2024
Unit 6: Heart Failure online assignment (1.5H)

Directions:

- Read Lewis Chapter 38, review ATI Pharmacology Made Easy 4.0: Cardiovascular Module: Drug Therapy for Heart Failure, and review the Unit 6 Pharmacology List.
- Utilizing the resources above, complete the case study. There will be many items for each question.
- Utilizing the Pharmacology List and ATI/Skyscape, complete three ATI Medication Templates from the Pharmacology List.
- This assignment is due in the Unit 6: HF assignment drop box by March 11, 2024 at 0800.
- Be prepared to discuss this assignment in class.
- You must complete the assignment in full to receive the 1.5H theory credit.

Assignment Objectives:

- Determine overall goals in the treatment of heart failure.

CASE STUDY:

Frannie Failure, a patient on 4P, calls the nurse and states, "I feel really puffy. My rings feel so tight on my fingers and I am having trouble catching my breath." The patient is lying flat in the bed and is alert and oriented x 3. Normal saline 0.9% @ 125mL/HR is running.

Assessment:

- Vital Signs: T 97.9 oral, HR 120, RR 24, SpO2 86% RA, BP 152/94, pain 0/10.
- Respiratory: Lung sounds- crackles throughout bilaterally, non-productive cough.
- Cardiac: Heart sounds- S3, pedal pulses not palpable, 3+ pitting edema bilateral feet and ankles.
- Skin intact, pale and cool.
- Gastrointestinal: Bowel sounds x4 WNL, BM yesterday morning.
- Intake/Output: Patient has had 900ml in and 200ml out over the last 8 hours.

1. **What additional information would you want/need to know**? I would want to know her past medical history, her current and past weight, her current ABGs, her BNP, cardiac biomarkers, LFT, thyroid function test, CBC, lipid profile, kidney function, and UA levels, if she has had any chest pain, neurological changes, her heart rhythm, any trouble sleeping, and any medication she has taken/is prescribed.
2. **What assessment/ interventions would be appropriate for this patient?** One of the first interventions that I would take is sitting the head of the bed up and applying oxygen per NC and titrate until she is above 90%, I would stop the NS to prevent fluid overload, getting circulatory assistive devices (ventricular assist device), daily weights, sodium and fluid-restricted diet, rest periods, apply ongoing monitoring, assess mentation, finding precipitating factors, assess hourly

urine output, assess perfusion to extremities (temp, color, pulses, edema), continuous pulse oximetry, and bed rest.

3. **What would you anticipate the healthcare provider to order?** I think he will order CXR, 12-lead, 2D echocardiogram, Nuclear imaging studies, cardiac catheterization, sleep study, cardiopulmonary exercise stress test, ultrafiltration or aquapheresis (if diuretics not effective), hemodialysis, implantation of CRT, biventricular pacemaker, ICD, intraaortic balloon pump (IABP), VADs, or extracorporeal membrane oxygenation, medications such as diuretics, ACE inhibitors, ARBs, neprilysin-angiotensin receptor inhibitors, aldosterone antagonists, beta blockers, ivabradine, hydralazine, digitalis, and dapagliflozin.
4. **What medications would be appropriate for this patient (include all pertinent from the Pharmacology List) ? Doses? Nursing Interventions? <u>You will pick three of these medications to complete the ATI Medication Templates.</u>** ACE inhibitors: captopril, lisinopril, enalapril dose- 25mg PO 3 times per day (may cause hypotension and hyperkalemia, monitor close after first dose and do not stop abruptly, angioedema can occur), ARBs: losartan, valsartan dose- 40mg PO twice daily (assess for angioedema, and monitor BP, do not stop abruptly, change positions slowly, notify HCP of any swelling of face, eyes, lips, tongue, or difficulty swallowing), digoxin dose- 0.5-1mg IV,IM and 0.75-1.5mg PO q6-12h (monitor pulse for 1 min before administer and hold if less than 60bpm, monitor BP and ECG for IV admin 6h after each dose, administer at same time every day and administer in therapeutic range, notify any changes in HR to HCP), sacubitril/valsartan dose- sacubitril 49mg/valsartan 51mg twice daily PO (assess BP and pulse during initial dose adjustment, monitor wt daily and assess pt routinely for fluid overload, assess for signs of angioedema and notify HCP if it occurs, take med as directed, avoid salt substitutes containing potassium or foods containing high levels of potassium or sodium unless directed by HCP), spironolactone dose- 25mg once daily may then increase to 50mg once daily PO (monitor intake and output and daily weight, monitor BP before administration, monitor for hyperkalemia, periodic ECGs recommended, assess for skin rash and discontinue at first sign of rash and notify HCP, take med even when not feeling well, notify HCP for muscle weakness, rash or fatigue), beta blockers: metoprolol, succinate, carvedilol, bisoprolol, dose- PO 25-100mg/day as a single dose initially or 2 divided doses IV 5mg q2min for 3 doses, followed by oral (Monitor HR report rate less than 60bpm, monitor signs of HF (SOB, edema of extremities, night cough) report to HCP. Do not stop taking suddenly, slowly taper over 1-2 weeks), furosemide dose- 20-80mg q6-8h (assess fluid status, monitor weight daily, monitor BP and pulse before and during administration, assess for skin rash and discontinue at the first sign and notify HCP, change position slowly, contact HCP if wt gain of more than 3lbs in a day, use sunscreen and protective clothing in the sun), and bumetanide dose- 0.5-2mg/day given in 1-2 doses PO, IV/IM 0.5-1mg dose and repeat q2-3h as needed up to 10mg (assess fluid status during therapy, monitor daily wt, I&Os, lung sounds, edema, monitor BP and pulse before and during, assess tinnitus and report to HCP, assess for skin rash and report to HCP stop med at sign of rash, contact if wt gain of more than 3lbs in a day, take med as directed).
5. **What patient education would you include?** Include the diet plan and restrictions and adhering to the sodium restrictions, read labels on foods and OTC drugs for sodium content, avoid adding salt to foods, weigh yourself at the same time each day, preferably in the morning, using same

scale and similar clothing, eat small frequent meals, increase walking/activities that do not cause fatigue or dyspnea, consider cardiac rehabilitation program, avoid extreme temperatures, know S&S of HF (increasing dyspnea, cough, orthopnea, PND, wt gain, edema, fluid retention, fatigue, and tiredness with activity), report any of following to HCP at once: wt gain of 3lbs in a week, difficulty breathing, especially with activity or lying flat, waking up breathless at night, frequent dry hacking cough, especially when lying down, fatigue, weakness, swelling of ankles, feet abdomen, swelling of face or difficulty breathing (if taking ACE inhibitors), follow up with HCP regularly, obtain annual influenza vaccine, pneumococcal and COVID-19 vaccine, develop plan to reduce risk factors (BP control, tobacco cessation, blood glucose, wt reduction), plan a regular daily rest and activity program, take each drug as prescribed, develop a system to ensure every drug is taken, count pulse rate and BP before taking drugs (if appropriate), know signs of orthostatic hypotension and how to prevent them, if taking anticoagulants know S&S of bleeding and what to do, and know your INR and target range if taking warfarin.