

Firelands Regional Medical Center School of Nursing
AMSN 2026
Unit 6: Heart Failure online assignment (1.5H)

Directions:

- Read Lewis Chapter 38, review ATI Pharmacology Made Easy 5.0: 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 (see below for further details).
- This assignment is due in the Unit 6: HF assignment drop box by March 9, 2026 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?**

Medical history, especially involving HTN, CAD, cardiomyopathy, valve/congenital heart disease diabetes, HLD, renal disease, thyroid or lung disease and rapid/irregular heart rate. Current medications, medication compliance, daily diet, daily weight, heart rhythm and exercise level. Symptoms such as nocturia, weight gain, sodium intake, swelling, paroxysmal nocturnal dyspnea, dizziness, vision changes, ascites, altered LOC, increased/decreased urination and pain level. Stage of heart failure, right or left sided heart failure, chronic or acute heart failure.

2. What assessment/ interventions would be appropriate for this patient?

Raise HOB, start 2L NC, Call provider, stop fluids, obtain VS and place on monitor. Daily weights, heart rhythm, presence of ascites, hepatomegaly, JVD, murmurs, and pulmonary congestion. Labs such as ABGs, serum chemistries, electrolyte levels, cardiac biomarkers, BNP, or NT-proBNP, liver function tests, thyroid function tests, CBC, lipid profile, kidney function tests, UA, CXR, 12 lead EKG, echo, CT, Cardiac catheter.

3. What would you anticipate the healthcare provider to order?

Medications such as anticoagulants, antidysrhythmic drugs, beta blockers, and diuretics. CXR, Echocardiogram, EKG, dietary consult, strict I/O, fluid restrictions, and continuous cardiac monitoring.

4. What medications would be appropriate for this patient (include all pertinent from the Unit 6 Pharmacology List) ? What doses? Nursing Interventions?

ARBs: Losartan and Valsartan

- 25-100 mg/day
- Monitor BP, HR, signs for angioedema, renal function, and potassium levels

Digoxin

- IV IM loading dose: 0.5-1 mg given as 50% of the dose initially and one quarter of the initial dose in each of 2 subsequent doses at 6-12 hour intervals
- PO Loading dose: 0.75-1.5 mg given as 50% of the dose initially and one quarter of the initial dose in each of 2 subsequent doses at 6-12 hour intervals.
Maintenance dose: 0.125-0.5 mg/day
- Monitor apical pulse for 1 full minute before administering, monitor BP, monitor EKG, Monitor I/O, daily weights, peripheral edema, auscultate lungs, serum electrolytes and digoxin level

Diltiazem

- 30-120 mg 3-4 times daily or 180-240 mg once daily
- Monitor BP and HR, Monitor EKG, I/O, daily weights signs of HF, angina, Potassium levels, renal and hepatic function

Positive Inotropes Beta-Adrenergic Agonists:

Dobutamine

- 2.5-15 mcg/kg/min (max dose 40 mcg/kg/min)
- Monitor BP, HR, EKG, pulmonary capillary wedge pressure, CO, central venous pressure, I/O. Assess peripheral pulses and appearance of extremities. Monitor potassium levels, BUN, creatinine, and prothrombin time

Dopamine

- 5-15mcg/kg/min continuous infusion
- Monitor BP, HR, EKG, pulmonary capillary wedge pressure, CO, central venous pressure, I/O. Assess peripheral pulses and appearance of extremities.

Sacubitril/ Valsartan

- Sacubitril 49 mg/ Valsartan 51 mg 2x/day; double dose in 2-4 weeks as tolerated
- Monitor BP and HR, daily weight, peripheral edema, lung sounds, weight gain, JVD, oliguria, acute renal failure, signs of angioedema. Monitor hepatic function, renal function, potassium levels

Furosemide

- 20-80 mg/day; may repeat in 6-8 hours
- Assess fluid status, monitor daily weight, I/O, edema, lung sounds. Monitor for thirst, dry mouth, lethargy, weakness, hypotension, or oliguria. Monitor BP and HR, tinnitus, and hearing loss. Assess for allergy to sulfonamides and skin rash during therapy.

Bumetanide

- PO (Adults): 0.5-2 mg/day given in 1-2 doses; titrate to desired response (maximum daily dose = 10 mg/day). IM IV (Adults): 0.5-1 mg/dose, may repeat every 2-3 hr as needed (up to 10 mg/day).
- Assess fluid status, monitor daily weight, I/O, edema, lung sounds. Monitor for thirst, dry mouth, lethargy, weakness, hypotension, or oliguria. Monitor BP and HR, tinnitus, and hearing loss. Assess for allergy to sulfonamides and skin rash during therapy.

Hydrochlorothiazide

- 12.5-100 mg/day in 1-2 doses
- Monitor BP, intake, output, and daily weight and assess feet, legs, and sacral area for edema daily.

Beta Blockers: Metoprolol, Carvedilol, Bisoprolol

- Immediate release: 3.125 mg twice daily; dose may be doubled every 2 wk as tolerated (not to exceed 25 mg twice daily in patients <85 kg or 50 mg twice daily in patients >85 kg); Extended release: 10 mg once daily; dose may be doubled every 2 wk as tolerated up to 80 mg once daily.
- Monitor BP and HR, assess for orthostatic hypotension, monitor I/O and daily weights

Milrinone

- IV (Adults): Loading dose: 50 mcg/kg followed by Continuous infusion at 0.5 mcg/kg/min (range 0.375–0.75 mcg/kg/min).
- Monitor heart rate and BP continuously during administration. Slow or discontinue if BP drops excessively. Monitor intake and output and daily weight. Monitor ECG continuously. Monitor intake and output and daily weight. Assess patient for resolution of signs and symptoms of HF (peripheral edema, dyspnea, rales/crackles, weight gain) and improvement in hemodynamic parameters (increase in cardiac output and cardiac index, decrease in pulmonary capillary wedge pressure).

Morphine

- PO: 0.3mg/kg every 3-4 hours
- IM: 4-10 mg every 3-4 hours
- IV continuous infusion: 0.8-10 mg/hour with bolus of 15 mg
- Pain assessment, assess LOC, BP, HR, RR, bowel function, fluid intake

Nitrates:

Isosorbide

- 5–20 mg 2–3 times daily; usual maintenance dose is 10–40 mg every 6 hr. 5–20 mg 2–3 times daily; usual maintenance dose is 10–40 mg every 6 hr.
- Pain assessment, Monitor BP and HR

Nitroglycerin

- PO (Adults): 2.5–9 mg every 8–12 hr.
- Pain assessment, Monitor BP and HR

Spirolactone

- PO (Adults): Tablets: 25–200 mg/day as a single dose or 2 divided doses. Suspension: 75 mg/day as a single dose or 2 divided doses
- Monitor I/O, daily weight, potassium level, BUN, creatinine, and EKG. Assess for skin rash

You will pick three of these medications to complete the ATI Medication Templates.

5. What patient education would you provide to Frannie Failure?

Low sodium diet, daily weights at the same time everyday, eat small frequent meals, increase activity gradually, cardiac rehab, avoid temperature extremes. Signs and symptoms of worsening HF such as increased dyspnea, cough, orthopedic, PND, weight gain, edema, fluid retention, fatigue, and tiredness with physical activity. Call HCP for weight gain of 3 lb in 2 days or 3-5 lbs in a wee, difficulty breathing especially with activity or when lying flat, waking up breathless at night, frequent dry hacking cough especially when lying down, fatigue, weakness, swelling of feet, ankles, or abdomen. Swelling of face or difficulty breathing if taking ACE inhibitors. BP control, tobacco cessation, blood glucose control weight loss. Regular daily rest and activity schedule with plenty of rest periods. Medication compliance, count pulse rate before taking meds, know signs and symptoms of adverse effects of medications and when to call HCP/ 911.