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**?
   Additional information that we would need to know includes current medications, past medical history, family history, allergies, oxygen history, urine output pattern, activity tolerance, diet, fluid intake, recent healthcare treatment and appointments, and weight trends.

2. **What assessment/ interventions would be appropriate for this patient?**
   - **Respiratory:** respiratory rate, lung sounds, and SPO2
   - **Cardiac:** heart rate, rhythm, pulses, heart sounds, and capillary refill
   - **Neurological:** level of consciousness and mental status
   - **Fluid Status:** weight, edema, intake, and output
   - **Skin:** color, temperature, and perfusion
   - **Laboratory:** electrolytes, renal function, and BMP

- Medication review and adherence

3. **What would you anticipate the healthcare provider to order?**
   - Stopping fluids if any are infusing
   - Supplemental O2
   - High Fowlers position
   - Cardiac assessment/monitoring
   - Respiratory assessment/monitoring
   - Telemetry
   - Medications (ex. loop diuretics)
   - Holding and adjusting current medications
   - Labs (electrolytes, BUN, creatinine, CBC, BNP)
   - Chest X-ray
   - Echocardiogram
   - Continuing assessments
   - Vital signs q1hr

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

   Loop Diuretics (Furosemide and Bumetanide): reduce preload, remove excess fluid, and improve oxygenation and pulmonary congestion. Typical dosage for Furosemide includes 20-40mg IV push initially, while the typical dosage for Bumetanide is 0.5-1mg IV. Interventions for these medications include monitoring blood pressure, strict intake/output, daily weights, lung sounds before/after administration, monitoring for ototoxicity, and monitoring lab values (potassium, magnesium, BUN, and creatinine).
   Nitrates (Nitroglycerin): reduce preload and afterload, improve pulmonary edema and dyspnea. Typical dosage for an IV drip starts at 5-10mcg/min and is then titrated every 3-5 minutes based on blood pressure and symptoms. The typical dosage sublingually is 0.4mg SL every 5 minutes x3. Interventions for this medication include continuous blood pressure monitoring, assessing headaches, holding medication based on parameters, and watching for hypotension.
   Morphine Sulfate: decreases preload, reduces anxiety, and decreases dyspnea. Used with severe distress and with caution. Typical dosage is 2-4mg IV slow push with the interventions of monitoring respiratory rate and blood pressure, ensuring to use cautiously as symptoms can worsen.
   Nesiritide: reduces preload and afterload in acute heart failure. Typical dosage is 2mcg/kg IV bolus and then 0.01mcg/kg/min continuous infusion. Interventions include monitoring blood pressure and kidney function.
   Dobutamine: depending on severity. Increases cardiac contractility. Typical dosage is 2-20mcg/kg/min IV infusion with the interventions of continuous cardiac monitoring, monitoring blood pressure, and tachyarrhythmias.

Beta Blockers (Metoprolol and Carvedilol): once stabilized for long-term therapy. Typical dosage for Metoprolol is 12.5-25mg daily, while the typical dosage for Carvedilol is 3.125mg BID. Interventions for these medications include monitoring heart rate and blood pressure before administration, holding them based on parameters, monitoring for fatigue, dizziness, and hypotension, assessing signs of worsening heart failure, and education patient to never stop these medications abruptly.
ARBs (Losartan and Valsartan): once stabilized for long-term therapy. Typical dosage for Losartan is 25-50mg PO daily and then titrated, while typical dosage for Valsartan is 40-80mg PO BID and then titrated. Interventions for these mediations include monitoring blood pressure, assessing syncope and dizziness, holding and adjusting the dose based on parameters, and monitoring renal function and electrolytes.
Spironolactone: once stabilized for long-term chronic therapy. Typical dosage is 12.5-25mg PO daily, with the interventions being to monitor potassium and renal function.
Milrinone: for poor cardiac output and cardiac function. IV infusion only with a typical loading of 50mcg/kg IV over 10 minutes. Once the initial infusion is complete, the dosage would change to continuous 0.125-0.75 mcg/kg/min IV. This is adjusted based on patient weight and response to medication and condition. Nursing interventions for this medication include continuous cardiac monitoring, blood pressure monitoring, strict intake/output, electrolyte monitoring, and kidney function monitoring.
Digoxin: for persistent tachycardia and/or systolic heart failure. For this situation, the dosage may be 0.125mg PO once daily while being adjusted to digoxin levels. Interventions related to this medication include monitoring apical pulse for a full minute before administration, parameters on when to hold, monitoring digoxin levels for therapeutic range, monitoring potassium, BUN, and creatinine levels, and monitoring signs of toxicity.
Lisinopril: once stabilized, prescribed at discharge for long-term therapy. The initial dose may start around 2.5-5mg PO once daily. For typical long-term therapy management, the dosage could be between 20-40mg PO once daily. Some interventions related to this medication include blood pressure monitoring, parameters for when to withhold medication, reporting a dry cough or angioedema, taking at the same time every day, and educating on changing positions slowly.

Resources: Davis's Drug Guide, Skyscape, and ATI Pharmacology 5.0, Cardiovascular
<u>You will pick three of these medications to complete the ATI Medication Templates.</u>

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

- Worsening symptoms: increased swelling, sudden weight gain, SOB, fatigue, inability to exercise, and the inability to lie flat.
- Fluid and sodium restrictions may be implemented: explain the purpose along with what foods contain a high sodium content. Promoting balance and adjustments in fluids and diet.
- Importance of monitoring daily weight and recording in a diary.
- Medication adherence: not skipping doses and reporting side effects.
- Proper follow-up with the provider and routine appointments

- When to seek healthcare: SOB, chest pain, confusion, fainting, and s/s of worsening heart failure.