Case Study
Mrs. Yates
Cardiovascular system

A 70 year old black American female. She has the following preexisting condition:

- Hypertension (HTN)
- Heart failure (CHF)
- Coronary artery disease (CAD)
- Myocardial infarction (MI) five years ago
- Ejection (EF) of 55%

Socioeconomic data:

- Widow
- Lives alone
- Able to care for self independently
- Nonsmoker

Pharmacologic data

- Aspirin (acetylsalicylic acid, ASA)
- Clopidogrel bisulfate (Plavix)
- Lisinopril (Prinivil, Zestril)
- Carvedilol (Coreg)
- Furosemide (Lasix)
- Potassium chloride (KCL)

Client Profile:

Jeraldine Yates is a 70 year old woman originally from Alabama. She lives alone and is able to manage herself independently. She is active in her community and church. Mrs. Yates was admitted to the hospital two months ago with heart failure. Since her discharge, a visiting nurse visits every other week to assess for symptoms of heart failure and see that Mrs. Yates is continuing to manage well on her own.

Case Study:

The visiting nurse stops in to see Mrs. Yates today. The nurse immediately notices that Mrs. Yates legs are very swollen. Mrs. Yates states, “I noticed they were getting a bit bigger. They are achy, too.” The nurse asks Mrs. Yates if she has been weighing herself daily to which Mrs. Yates replies, “I got on that scale the last time you were here, remember?” The nurse weighs Mrs. Yates and she has gained 10 pounds. Additional assessment findings indicate that Mrs. Yates gets short of breath when ambulating from one room to the other (approximately 20 feet) and must sit down to catch her breath. Her oxygen saturation is 95% on room air. Bibasilar crackles are heard when auscultating her lung sounds. The nurse asks Mrs. Yates if she is currently or has in the past few days experienced any chest, arm, or jaw pain or become nauseous or sweaty. Mrs. Yates states, “No, I didn’t have any of that. I would know another heart attack. I didn’t have one of those.” The nurse asks about any back pain, stomach pain, confusion, dizziness, or a feeling that Mrs. Yates might faint. Mrs. Yates denies these symptoms stating, “No. None of that. Just a little more tired than usual lately.” Her vital signs are temperature 97.6 F (36.4C), blood pressure 140/70, pulse 93, and respirations 22. The nurse reviews Mrs. Yates’s list of current medications. Mrs. Yates is taking
aspirin, Clopidogrel bisulfate, Lisinopril and Carvedilol. The nurse calls the health care provider who asks the nurse to draw blood for a complete blood count (CBC), basic metabolic panel (BMP), brain natriuretic peptide (B-type natriuretic peptide assay or BNP), troponin, creatine kinase (CPK), creatine kinase-MB (CKMB), and albumin. The health care provider also prescribes oral (PO) Furosemide and asks the nurse to arrange an outpatient electrocardiogram (ECG, EKG), chest X-ray, and echocardiogram.

Questions
1. Which assessment findings during the nurse’s visit are consistent with heart failure?
2. Why did the visiting nurse ask Mrs. Yates about back pain, stomach pain, confusion, dizziness or a feeling that she might faint?
3. Discuss anything else the nurse should assess during her visit with Mrs. Yates.
4. Explain what the following terms indicate and include the normal values: cardiac output, stroke volume, afterload, preload, ejection fraction and central venous pressure.
5. Discuss the body’s compensatory mechanisms during heart failure. Include an explanation of the Frank-Starling law and the neurohormonal model in your discussion.
6. Heart failure can be classified as left or right ventricular failure, systolic versus diastolic, according to the New York Heart Association (NYHA) and using the ACC/AHA (American Heart Association) guidelines. Explain these four classification systems and the signs and symptoms that characterize each.
7. According to each classification system discussed above in question #6, how would you label the type of heart failure Mrs. Yates is experiencing?
8. Discuss Mrs. Yates’s predisposing risk factors for heart failure. Is her age, gender, or ethnicity significant?
9. Provide a rationale for why each of the following medications is included in Mrs. Yates’s medication regimen: Aspirin, Clopidogrel bisulfate (Plavix), Lisinopril (Prinivil/Zestril), and Carvedilol (Coreg).
10. The nurse is teaching Mrs. Yates about her newly prescribed Furosemide. Explain the rationale for adding Furosemide to Mrs. Yates’s medication regimen, when she should expect to see the therapeutic results (urination), and instructions regarding the administration of Furosemide.
11. The visiting nurse asks the primary health care provider if he/she will prescribe potassium chloride for Mrs. Yates. Why has the nurse suggested this?
12. What information will each of the following blood tests provide: CBC, BMP, BNP, Troponin, CPK, CKMB, and albumin?
13. What will the health care provider look for on the electrocardiogram, chest X-ray and echocardiogram?
14. Mrs. Yates son comes to stay with his mother so she will not be alone. What should the nurse tell Mr. Yates about when he should bring his mother to the hospital?
15. The visiting nurse returns the next day. Mrs. Yates does not seem to be diuresing as well as the nurse anticipated. The swelling in her legs are still considerable, and there is no change in her weight. When asked about her frequency of voiding Mrs. Yates does not seem to have noticed much difference. While the nurse is unpacking her stethoscope to assess lung sounds, Mrs. Yates says, “Honey, I was just making myself a ham salad sandwich. Would you like one?” The nurse declines and becomes concerned because of this offer. Why is the nurse concerned?

16. The nurse asks Mrs. Yates to tell her more about how she cooked. Specifically, the nurse asks Mrs. Yates about the types of foods and food preparation. With great pride, Mrs. Yates leads the nurse to the kitchen and explains, “Honey, I’m from the South and we cook soul food. Today I am cooking my famous pea soup for the church dinner tonight. I use ham hocks. Have you ever had those? My son says they are not good for me. He has been trying to get me to eat healthier foods. Last week he brought me turkey sausage to try instead of my pork sausage in the morning. I know he means well but some foods are tradition and you don’t break soul food tradition.” What information has the nurse gathered that is of concern?

17. The nurse arranges for Mrs. Yates’s son to be present at the next home visit so that the nurse can teach them both about proper dietary choices and fluid restrictions. List five points of information that the nurse should include in the teaching.

18. During the dietary teaching, the nurse asks Mrs. Yates to describe a typical day of meals and snacks. Mrs. Yates lists coffee with whole milk, eggs and sausage for breakfast, a sandwich or soup for lunch, fried chicken with vegetables for dinner, and fruit, pretzels, or rice pudding for snacks. Which of these foods will the nurse instruct Mrs. Yates to limit, and are there alternatives that the nurse can suggest?

19. Since changing her diet, Mrs. Yates has responded to her outpatient treatment plan and has noticed marked improvement in how she feels. The nurse wants to make sure that Mrs. Yates understands the importance of monitoring her weight. What instructions should the nurse give Mrs. Yates regarding how often to weigh herself and what weight change should be reported to her health care provider or the nurse?

20. Prioritize five nursing diagnosis that the visiting nurse should consider for the recent events regarding Mrs. Yates’s care?