

Advanced Med. Surg

Cardiovascular Disorders

Case Study 1

Name _____ Class/Group _____ Date _____

Group Members _____

► Scenario

M.G., a “frequent flier,” is admitted to the emergency department (ED) with a diagnosis of heart failure (HF). She was discharged from the hospital 10 days ago and comes in today stating, “I just had to come to the hospital today because I can’t catch my breath and my legs are as big as tree trunks.” After further questioning, you learn that she is strictly following the fluid and salt restriction ordered during her last hospital admission. She reports gaining 1 to 2 pounds every day since her discharge.

1. What error in teaching most likely occurred when M.G. was discharged 10 days ago?

CASE STUDY PROGRESS

During the admission interview, the nurse makes a list of the medications M.G. took at home.

Chart View

Nursing Assessment: Medications Taken at Home

Enalapril (Vasotec)	5 mg PO bid
Pioglitazone (Actos)	45 mg PO every morning
Furosemide (Lasix)	40 mg/day PO
Potassium chloride	20 mEq/day PO

2. Which of these medications may have contributed to M.G.’s HF? Explain.

- d. Serum glucose level
 - e. Potassium level
 - f. Coagulation studies
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7. What is the purpose of the beta blocker carvedilol? It is given to:
 - a. increase the contractility of the heart.
 - b. cause peripheral vasodilation.
 - c. increase urine output.
 - d. reduce cardiac stimulation from catecholamines.

 8. You assess M.G. for conditions that may be a contraindication to carvedilol. Which condition, if present, may cause serious problems if the patient takes this medication?
 - a. Angina
 - b. Asthma
 - c. Glaucoma
 - d. Hypertension

CASE STUDY PROGRESS

One day later, M.G. has shown only slight improvement, and digoxin (Lanoxin) 125 mcg PO daily is added to her orders.

9. What is the action of the digoxin? Digoxin:
 - a. causes systemic vasodilation.
 - b. promotes the excretion of sodium and water in the renal tubules.
 - c. increases cardiac contractility and cardiac output.
 - d. blocks sympathetic nervous system stimulation to the heart.

10. Which findings from M.G.'s assessment would indicate an increased possibility of digoxin toxicity? Explain your answer.
 - a. Serum potassium level of 2.2 mEq/L
 - b. Serum sodium level of 139 mEq/L

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- c. Apical heart rate of 64 beats/minute
 - d. Digoxin level 1.6 ng/mL
11. When preparing to give the digoxin, you notice that it is available in milligrams (mg) not micrograms (mcg). Convert 125 mcg to mg.
12. M.G.'s symptoms improve with intravenous diuretics and the digoxin. She is placed back on oral furosemide (Lasix) once her weight loss is deemed adequate for achievement of a euvolemic state. What will determine whether the oral dose will be adequate for discharge to be considered?
13. M.G. is ready for discharge. According to the mnemonic *MAWDS*, what key management concepts should be taught to prevent relapse and another admission?
14. After the teaching session, which statement by M.G. indicates a need for further education?
- a. "I will weigh myself daily and tell the doctor at my next visit if I am gaining weight."
 - b. "I will not add salt when I am cooking."
 - c. "I will try to take a short walk around the block with my husband three times a week."
 - d. "I will use a pill calendar box to remind me to take my medicine."

CASE STUDY OUTCOME

After 3 days, the STOP Heart Failure Nurse calls M.G. to ask about her progress. M.G. reports that her weight has not changed since she has been home.