

Cardiovascular/Respiratory IBL

Background

You are a newly graduated nurse in your first year of practice working at a busy teaching hospital. You have been working there for about 6 months and last week you started on a medical ward. The team leader Carole is extremely supportive and has welcomed you into the team. Today is your 5th shift and it has been a hectic few days. Your shift started at 7am and its now 11am and you have not had a chance to take a break.

Today you are looking after 2 patients who are located in the same 4 bed bay.

One of your patients, Wayne is a 70-year-old male who has a known history of heart failure. Wayne was admitted to the hospital via ED with worsening breathlessness and oedema. Wayne's left ventricular ejection fraction (LVEF) is 35%, indicating reduced heart function.

Wayne is a retired school teacher and has a past medical history of hypertension, chronic heart failure and COPD. Wayne lives alone but has a supportive family nearby. Wayne's physical activity is limited due to his heart condition, and he relies on his family for assistance with daily tasks. Wayne used to smoke 15 cigarettes a day, over the last 12 months he has reduced to 1-2 per day. He has no cough or sputum production.

Wayne's current medications are:

Perindopril arginine 10mg daily
Frusemide 20mg when required.
Ipratropium inhaler 1-2 puffs when required.

Plan

- The cardiology team prescribe Metoprolol 23.75mg Controlled Release and 3 days of Frusemide 20 mg daily.
- They also ask the nursing staff to document daily weights for Wayne.

Wayne is due the first dose of metoprolol and a dose of frusemide. When you come to administer these medications to Wayne, he expresses concerns about the Frusemide as he dislikes taking it, as it makes him want to go to the toilet a lot. He discloses that he wasn't taking it at home, for this reason.

Questions:

(if using specific resources state which ones you have accessed for specific information)

1. For the medications Wayne is currently taking (perindopril, frusemide) discuss:
 - a. The class of medication
 - b. The mechanism of action in heart failure
 - c. The appropriateness and rationale in heart failure
2. Discuss the proposed medication plan for Wayne including appropriateness and rationale of the prescribed medications.
3. Are there any Pharmacokinetic or Pharmacodynamic issues that maybe relevant in Wayne's case?
4. What are the common side effects of perindopril, frusemide and metoprolol, that Wayne might experience?
5. Discuss any monitoring that you would recommend or carry out before administering Wayne's medications.
6. What medication safety approaches will you use when administrating these medications?
7. How will you address Wayne's concerns about taking the Frusemide?
8. Can you identify any key legal, ethical or professional issues relevant to the case?