

Nursing Case Study: Management of Acute Exacerbation of Chronic Heart Failure

Patient Background:

Mr. Johnson, a 65-year-old male with a history of chronic heart failure (CHF), presents to the emergency department with complaints of worsening shortness of breath, fatigue, and lower extremity edema for the past two days. He reports non-compliance with his prescribed medications and dietary restrictions.

Assessment Findings:

- Vital signs: BP 160/90 mmHg, HR 110 bpm, RR 24 bpm, SpO2 88% on room air
 - Lung auscultation: Bilateral crackles heard in lung bases
 - Lower extremity assessment: 2+ pitting edema bilaterally
 - Lab results: Elevated BNP levels, hyponatremia, hypokalemia
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Nursing Diagnoses:

1. Impaired Gas Exchange related to fluid overload and decreased oxygenation.
 2. Activity Intolerance related to decreased cardiac output and dyspnea.
 3. Noncompliance with Medications related to lack of understanding and socioeconomic factors.
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Interventions:

1. Administer oxygen therapy via nasal cannula at 2 L/min to improve oxygenation.
 2. Monitor fluid intake and output, restrict sodium intake, and administer prescribed diuretics to reduce fluid overload.
 3. Educate the patient and family about the importance of medication adherence, dietary restrictions, and daily weight monitoring.
 4. Collaborate with the healthcare team to adjust medication regimen, including ACE inhibitors, beta-blockers, and diuretics.
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Evaluation:

- Mr. Johnson's oxygen saturation improves to 94% on supplemental oxygen.
 - Crackles in lung bases diminish after diuretic therapy, and lower extremity edema decreases.
 - Patient verbalizes understanding of medication regimen and plans to adhere to prescribed treatment.
 - Follow-up appointment scheduled for cardiac rehabilitation and medication review.
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Rationale for Interventions:

- Oxygen therapy improves oxygenation and relieves dyspnea.
- Diuretics help reduce fluid overload and alleviate symptoms of congestion.
- Patient education promotes self-management and empowers the patient to participate in their care.