

Patient Notes: John Doe

Patient ID: 123456

Date of Birth: 15/07/1955

Sex: Male

Admission Date: 10/10/2023

Discharge Date: 17/10/2023

Primary Diagnosis: Heart Failure with Reduced Ejection Fraction (HFrEF)

Secondary Diagnoses:

- Ischaemic Heart Disease
 - Hypertension
 - Type 2 Diabetes Mellitus
 - Chronic Kidney Disease (Stage 3)
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Clinical History

- **Presenting Complaint:** Shortness of breath (NYHA Class III), fatigue, and swelling in the lower limbs for the past 2 weeks.
 - **Past Medical History:**
 - Myocardial infarction (2018) with subsequent percutaneous coronary intervention (PCI).
 - Hypertension diagnosed in 2010, poorly controlled.
 - Type 2 Diabetes Mellitus diagnosed in 2012, on metformin.
 - Chronic Kidney Disease (eGFR 45 mL/min/1.73 m²).
 - **Medications on Admission:**
 - Metoprolol tartrate 50 mg twice daily.
 - Ramipril 5 mg once daily.
 - Frusemide 40 mg once daily.
 - Spironolactone 25 mg once daily.
 - Metformin 500 mg twice daily.
 - Atorvastatin 40 mg once daily.
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Examination Findings

- **Vitals:**
 - Blood Pressure: 145/90 mmHg
 - Heart Rate: 78 bpm

- Respiratory Rate: 22 breaths/min
 - Oxygen Saturation: 94% on room air
 - **Cardiovascular Exam:**
 - Elevated jugular venous pressure (JVP).
 - S3 gallop heard on auscultation.
 - Bilateral pitting edema up to the knees.
 - **Respiratory Exam:**
 - Bibasilar crackles on lung auscultation.
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Investigations

- **Echocardiogram (10/10/2023):**
 - Left Ventricular Ejection Fraction (LVEF): 32% (severely reduced).
 - Mild mitral regurgitation.
 - **Blood Tests:**
 - Serum Potassium: 4.8 mmol/L (normal range: 3.5–5.0 mmol/L).
 - Serum Sodium: 135 mmol/L (normal range: 135–145 mmol/L).
 - eGFR: 45 mL/min/1.73 m² (Stage 3 CKD).
 - HbA1c: 7.5% (suboptimal control).
 - **Electrocardiogram (ECG):**
 - Sinus rhythm with left bundle branch block (LBBB).
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Management During Admission

- **Medications Initiated/Adjusted:**
 - Metoprolol tartrate switched to **carvedilol 12.5 mg twice daily** (beta-blocker with mortality benefit in HFrEF).
 - Ramipril increased to **10 mg once daily** (ACE inhibitor).
 - Frusemide increased to **80 mg once daily** (loop diuretic).
 - Spironolactone continued at **25 mg once daily** (aldosterone antagonist).
 - Ivabradine **5 mg twice daily** added (heart rate control).
- **Device Therapy:**
 - Referral to cardiology for consideration of **cardiac resynchronization therapy (CRT)** due to LBBB and LVEF <35%.

- **Lifestyle Advice:**
 - Sodium restriction (<2 g/day).
 - Fluid restriction (<1.5 L/day).
 - Weight monitoring daily.
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Discharge Plan

- **Medications on Discharge:**
 - Carvedilol 12.5 mg twice daily.
 - Ramipril 10 mg once daily.
 - Frusemide 80 mg once daily.
 - Spironolactone 25 mg once daily.
 - Ivabradine 5 mg twice daily.
 - Metformin 500 mg twice daily.
 - Atorvastatin 40 mg once daily.
- **Follow-Up:**
 - Cardiology outpatient clinic in 4 weeks for CRT evaluation.
 - GP review in 1 week for blood pressure and renal function monitoring.