Medical Report — Synthetic / Sample

> **Note:** This is a fully synthetic, anonymized sample medical report generated for demonstration/testing purposes. It does not describe a real person.

Patient details

- **Name:** Mrs. A. Sharma *(anonymized sample)*
- **Medical Record No.:** MR-2025-0987
- **Age / Sex:** 62 years / Female
- **Date of report:** 30 November 2025
- **Referring clinician:** Dr. R. Mehta
- **Primary contact:** (anonymized)

Chief complaint

Progressive shortness of breath on exertion for 3 months, worsening in the last 2 weeks; orthopnea (2 pillows); bilateral ankle swelling.

History of present illness

Mrs. A. Sharma is a 62-year-old woman with progressive exertional dyspnea over 3 months. Initially she could climb two flights of stairs, now she becomes breathless after walking 200–300 meters. She reports waking at night with breathlessness twice in the past month. She notes swelling of both ankles, worse in the evenings. No history of chest pain at rest during the current episode, but she reports intermittent exertional chest discomfort for several years.

Symptoms began insidiously; she sought evaluation when breathlessness progressed. No recent fever, cough, or hemoptysis.

Past medical history

- Hypertension — diagnosed 12 years ago, on medication intermittently.
- Type 2 diabetes mellitus — diagnosed 8 years ago; currently on oral agents.
- Dyslipidemia.
- No prior myocardial infarction documented in available records.

Medications (on presentation)

- Metformin 500 mg twice daily
- Amlodipine 5 mg once daily (irregular use)
- Metoprolol tartrate 25 mg twice daily (recently started by PCP)
- Atorvastatin 20 mg once nightly (started 6 months ago)
- Occasional OTC analgesics

Allergies

- No known drug allergies.

Family history

- Father died at age 70 of a stroke. Mother had hypertension.

Social history

- Non-smoker. Does not consume alcohol. Lives with spouse. Sedentary lifestyle.

Examination findings

General: Alert, oriented, moderate respiratory distress on minimal exertion.

Vital signs: - Temperature: 36.8 °C - Blood pressure: 140 / 88 mmHg - Heart rate: 96 beats per minute, regular - Respiratory rate: 20 breaths per minute - SpO_2 (room air): 95%

Cardiovascular: - JVP mildly elevated at 6–8 cm H_2O with prominent v waves. - Apex beat displaced laterally (cardiomegaly on palpation). - S1 normal, S2 soft; S3 gallop audible at apex. - Mild systolic murmur (grade II/VI) at apex radiating to axilla (consistent with mitral regurgitation).

Respiratory: - Bibasilar crepitations (fine) up to mid zones, more on the left.

Abdomen: - Soft, non-tender. No hepatomegaly.

Extremities: - Pitting edema to mid-shin bilaterally. No cyanosis.

Investigations

Electrocardiogram (12-lead) — performed on presentation - Sinus rhythm, rate 92/min - Left ventricular hypertrophy voltage criteria present - Q waves in leads V1–V3 (old septal changes) - No acute ST-elevation or new ischemic changes

Chest X-ray (AP upright) - Cardiomegaly - Pulmonary vascular congestion with mild interstitial edema - No focal lobar consolidation

Echocardiogram (transthoracic) - Left ventricular (LV) dilatation - LVEF (Simpson's biplane): **38%** (reduced systolic function; HFrEF) - Regional wall motion abnormalities: hypokinesia of the anterior and anterolateral walls - Moderate functional mitral regurgitation - Estimated pulmonary artery systolic pressure (PASP): **45 mmHg** (moderately elevated)

Laboratory tests - Hemoglobin: **12.1 g/dL** - Total leukocyte count (TLC): **7.8 ×10^9/L** - Platelets: **250 ×10^9/L** - Sodium (Na^+): **138 mmol/L** - Potassium (K^+): **4.5 mmol/L** - Creatinine: **0.9 mg/dL** (eGFR estimated >60 mL/min/1.73 m^2) - Fasting blood glucose: **138 mg/dL** - HbA1c: **7.8%** - NT-proBNP: **820 pg/mL** (elevated;

consistent with heart failure) - Troponin I: **0.03 ng/mL** (within near-normal/low range; not consistent with acute MI)

Lipid profile - Total cholesterol: **220 mg/dL** - LDL-C: **140 mg/dL** - HDL-C: **40 mg/dL** - Triglycerides: **160 mg/dL**

Urinalysis: no proteinuria on dipstick.

Other tests recommended (pending / advised) - 24–48 hour ambulatory ECG (Holter) if arrhythmia suspected - Coronary angiography / CT coronary angiography for ischemic evaluation (given regional wall motion abnormalities and risk profile) - Sleep study if symptoms of sleep apnea

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Clinical assessment / Impression

1. **Chronic ischemic cardiomyopathy with heart failure with reduced ejection fraction (HFrEF)** — LVEF ~38%.
2. **NYHA functional class III** (symptoms with minimal exertion; orthopnea present).
3. **Moderate functional mitral regurgitation**, likely secondary to LV dilatation.
4. **Hypertension and type 2 diabetes mellitus** — suboptimally controlled (HbA1c 7.8%).
5. **Elevated NT-proBNP** consistent with symptomatic heart failure.

Differential diagnoses considered

- Non-ischemic dilated cardiomyopathy (less likely given regional wall motion abnormalities and risk factors)
- Valvular cardiomyopathy (MR is likely secondary rather than primary)
- Constrictive pericarditis (unlikely clinically / on echo)

Management plan (initial and short-term)

A. Immediate / inpatient therapies (if admitted) - Oxygen as needed to maintain $SpO_2 \geq 94\%$. - Loop diuretics: Furosemide IV 40 mg bolus (or oral 40 mg) with monitoring of urine output and electrolytes; titrate to symptom relief and decongestion. - Consider IV vasodilator therapy if hypertensive pulmonary edema (not currently required).

B. Guideline-directed medical therapy (initiate / optimize) - **ACE inhibitor / ARNI:** Start Ramipril 2.5 mg once daily (or consider ARNI [sacubitril/valsartan] after stabilization and where feasible). Up-titrate as tolerated. - **Beta-blocker:** Continue/optimize Bisoprolol or Carvedilol (e.g., Bisoprolol 1.25–2.5 mg once daily, up-titrate gradually) when euvolemic. - **MRA (Mineralocorticoid receptor antagonist):** Spironolactone 12.5–25 mg once daily if renal function and potassium allow. - **SGLT2 inhibitor:** Dapagliflozin 10 mg once daily (benefit in HFrEF and diabetes) if not contraindicated. - **Statin intensification:** Atorvastatin 40 mg once nightly aiming Hb LDL < 70–100 mg/dL depending on cardiology recommendation. - **Antiplatelet therapy:** Consider aspirin 75–100 mg daily if coronary disease is confirmed; discuss after further ischemic evaluation.

C. Investigations to arrange - **Coronary angiography / CT coronary angiogram** to assess for obstructive coronary artery disease (given regional wall motion changes and risk factors). - Repeat basic metabolic panel and NT-proBNP after diuresis / therapy initiation. - Echocardiogram follow-up in 6–12 weeks after optimization of medical therapy.

D. Device therapy (consider later) - If LVEF remains ≤35% despite 3 months of optimized medical therapy, evaluate for ICD (implantable cardioverter-defibrillator) for primary prevention and/or CRT (cardiac resynchronization therapy) if QRS widening and mechanical dyssynchrony present.

E. Lifestyle and risk factor modification - Low-sodium diet (<2 g Na/day) and fluid restriction as clinically appropriate. - Structured cardiac rehabilitation and graded exercise program once stable. - Strict glycemic control — review diabetes medications and diet; aim HbA1c target individualized (generally <7–7.5% depending on tolerance). - Smoking cessation (patient is non-smoker). Alcohol moderation advised.

F. Patient education & safety netting - Advise to seek immediate medical care for: increasing shortness of breath at rest, syncope, chest pain suggestive of ischemia, sudden worsening edema, or rapid weight gain (>2 kg in 48 hours). - Provide clear medication list and explanation of side effects (e.g., dizziness, hypotension, hyperkalemia).

Discharge / Follow-up recommendations

- If admitted for decompensated HF: discharge once euvolemic with oral diuretic plan, clear follow-up within 7–14 days with cardiology and primary care.
- Cardiology outpatient follow-up at 2–4 weeks for medication titration and further testing scheduling.
- Repeat echocardiogram in 6–12 weeks after optimized therapy to reassess LVEF and MR severity.

Summary (one-line)

62-year-old woman with chronic ischemic cardiomyopathy and symptomatic heart failure (LVEF ≈ 38%, NYHA III) requiring initiation/optimization of guideline-directed medical therapy and ischemic evaluation.

Prepared by: Dr. R. Mehta — Cardiology Department

Disclaimer: This is a synthetic, educational/sample medical report. For clinical decision-making, correlate with the patient's full clinical assessment and local institutional protocols. This document is not a substitute for professional medical advice.