MARVIX AI

SAMPLE INTERVENTIONAL CARDIOLOGY SOAP NOTE

NSTEMI — DAY 5 AFTER STAGED LAD PCI

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1 PATIENT INFORMATION

1 PATIENT DETAILS

NAME	Nadia R. Chowdhury
DOB	03/17/1971
AGE / SEX	54 yrs / Female
MRN / PATIENT ID	4482913
DATE OF SERVICE	08/05/2026
PROVIDER	Elena Vasquez, MD
CREDENTIALS	MD, FACC, FSCAI
REFERRAL SOURCE	Inpatient cardiology service, St. Aldwyn Regional
VISIT TYPE	Post-Procedure Visit — day 5 after staged PCI
CARE SETTING	Outpatient — Cath Lab Follow-Up Clinic
PRIMARY CARE PROVIDER	Marcus Bell, DO
PRIMARY CARDIOLOGIST	Priya Ganesh, MD

CC CHIEF COMPLAINT

2 PRIMARY INTERVENTIONAL CARDIOLOGY CONCERN

"The chest pressure is completely gone — I walked to the mailbox yesterday and felt nothing. But my right wrist still aches where they went in, and there's a lump under the bruise that I keep pressing to see if it's getting bigger."

S SUBJECTIVE

3 PATIENT-REPORTED CARDIOVASCULAR SYMPTOMS, PROCEDURAL HISTORY & TREATMENT RESPONSE

3a INDICATION & ANGINAL SYMPTOMS

Reason for Interventional Cardiology Evaluation

Day-5 post-procedure follow-up after staged PCI of the proximal LAD performed 08/01/2026, during index admission (07/29–08/02) for non-ST-elevation myocardial infarction. Visit purpose: symptom reassessment, right radial access-site

evaluation for a persistent forearm hematoma, DAPT confirmation and bleeding review, renal function recheck after 140 mL of contrast in CKD stage 3a, and disposition of the deferred OM2 lesion.

Chest Pain / Anginal Symptoms

Six weeks of crescendo exertional substernal pressure prior to admission — initially only climbing the two flights to her office (CCS II), progressing over the final ten days to pressure while walking on level ground and twice at rest, each episode 10–15 minutes with radiation to the left jaw, diaphoresis and nausea. Presented to the ED 07/29 after a 40-minute rest episode unrelieved by two sublingual nitroglycerin. Since PCI on 08/01 she reports complete resolution: no exertional chest pressure, no rest pain, no nitroglycerin use in five days. Walked approximately 400 m on level ground yesterday without symptoms.

Dyspnea / Heart Failure Symptoms

Pre-admission exertional dyspnea at NYHA class II, now class I. Denies orthopnea, PND, bendopnea, ankle swelling, or weight gain. Home weight stable at 82–83 kg. No diuretic prescribed.

3b CORONARY & PROCEDURAL HISTORY

Coronary Artery Disease History

No prior MI, PCI, or CABG before this admission. First diagnostic catheterization 07/30/2026: proximal LAD 90% eccentric stenosis with TIMI 2 flow (culprit), second obtuse marginal 70% with FFR 0.86 (deferred), mid RCA 30% non-obstructive, left main normal. No prior ischemia testing; a stress echo ordered by her PCP in May 2026 was never completed. No history of restenosis or stent thrombosis.

Post-Procedure Course

Right radial access with TR band compression for two hours, removed without bleeding. Discharged 08/02 ambulating independently. Since discharge: aching 3/10 pain over the distal right forearm, worse with wrist extension and carrying groceries; a firm, non-pulsatile swelling appeared on POD 2 and has not enlarged. No bleeding through dressing, no numbness, no tingling, no colour change of the hand, no fever. Fully adherent to all medications by pill organiser; has observed the 5 kg lifting restriction and has not resumed driving beyond short local trips.

Peripheral Vascular Symptoms

Denies claudication, rest pain, non-healing wounds, limb swelling, cold extremity, or colour change. No prior peripheral intervention or vascular imaging.

Structural Heart Symptoms

No syncope, presyncope, or exertional dizziness. Inpatient echocardiogram showed mild mitral regurgitation and no aortic stenosis; no structural symptoms attributable to valvular disease.

3c MEDICATIONS, RISK FACTORS & FUNCTIONAL STATUS

Medication History and Treatment Response

Aspirin 81 mg daily, ticagrelor 90 mg twice daily, atorvastatin 80 mg nightly, metoprolol succinate 25 mg daily, lisinopril 5 mg daily (held on the day of catheterization, resumed 08/02), empagliflozin 10 mg daily, metformin 1000 mg twice daily (held 48 hours post-contrast, resumed 08/03), sublingual nitroglycerin 0.4 mg as needed. Reports mild transient dyspnea on standing within an hour of the evening ticagrelor dose, non-exertional, resolving in minutes — counselled inpatient that this is a known ticagrelor effect and she wishes to continue. No missed doses. No gum bleeding, epistaxis, melena, or haematuria. 90-day supply obtained; no affordability barrier reported.

Risk Factors

Type 2 diabetes for 11 years (A1c 8.4% in February 2026, 7.9% on 07/30), essential hypertension, hyperlipidemia (untreated LDL-C 148 mg/dL pre-admission), CKD stage 3a with baseline creatinine 1.21 mg/dL and eGFR 55, BMI 31.4, obstructive sleep apnea on CPAP with self-reported use four nights per week, former smoker with an 18 pack-year history quit in 2019, and a father who sustained a fatal MI at age 49. Sedentary occupational profile.

Lifestyle and Functional Capacity

Estimated 4 METs at baseline. School district administrator, desk-based, returning to work part-time 08/17. Diet high in sodium and refined carbohydrate; no formal nutrition counselling to date. Enrolled in phase II cardiac rehabilitation with the

first session scheduled 08/18. Alcohol: one to two drinks monthly. No stimulant use.

Recent Testing / Hospitalizations

Admission 07/29–08/02/2026 for NSTEMI. Diagnostic angiography 07/30, staged PCI 08/01, transthoracic echocardiogram 07/30. Serial hs-troponin, BMP, CBC, lipid panel, and A1c during admission. No ED visits since discharge.

Pertinent Negatives

Denies recurrent chest pain at rest or on exertion, dyspnea at rest, orthopnea, palpitations, syncope, or presyncope. Denies bleeding through the access site, an expanding or pulsatile forearm mass, hand numbness, weakness, or colour change. Denies fever, chills, or access-site drainage. Denies focal neurologic symptoms, melena, or gum bleeding.

ROS INTERVENTIONAL CARDIOLOGY REVIEW OF SYSTEMS

4 PERTINENT POSITIVES & NEGATIVES

Chest pain, chest pressure, exertional symptoms, or nitroglycerin use	**Negative since 08/01. No SL NTG use in 5 days.**
Dyspnea, orthopnea, PND, edema, weight gain, or reduced exercise tolerance	**Positive — brief non-exertional dyspnea after evening ticagrelor. No orthopnea, PND, or edema.**
Palpitations, dizziness, presyncope, syncope, or irregular heartbeat	**Negative.**
Access-site pain, bruising, bleeding, swelling, numbness, or limb colour change	**Positive — right forearm ache 3/10, ecchymosis, stable 2 cm hematoma. No bleeding, numbness, or colour change.**
Claudication, rest pain, wounds, cold extremity, or peripheral vascular symptoms	**Negative.**
Bleeding, bruising, anticoagulation or antiplatelet issues	**Positive — access-site ecchymosis only. No mucosal or GI bleeding.**
Fatigue, diaphoresis, nausea, or exercise intolerance	**Positive — mild fatigue in the afternoons, improving daily. No diaphoresis or nausea.**
Tobacco, alcohol, stimulant, or substance use relevant to cardiovascular risk	**Former smoker, quit 2019. Alcohol 1–2 drinks/month. No stimulant use.**

O OBJECTIVE

5 OBSERVED FINDINGS

V VITALS

TEMPERATURE	BLOOD PRESSURE
36.8 °C	**128/74 mmHg (left arm, seated)**
HEART RATE	RESPIRATORY RATE
62 bpm, regular	**16 /min**
OXYGEN SATURATION	WEIGHT
97% on room air	**82.6 kg**

BMI

31.4 kg/m²

ORTHOSTATIC VITALS

Negative — 128/74 supine to 124/70 standing

5a GENERAL, CARDIOVASCULAR & PULMONARY

General Appearance

Well-appearing woman in no distress, speaking in full sentences, ambulates unaided into the room. Body habitus obese, central adiposity. No cachexia or frailty.

Cardiovascular

Rate 62 and regular. Normal S1 and S2, soft 2/6 mid-systolic murmur at the apex without radiation, no S3 or S4, no rub. JVP 6 cm H_2O. No carotid bruits. Radial pulses 2+ and symmetric, dorsalis pedis and posterior tibial 2+ bilaterally. Capillary refill under 2 seconds. No peripheral edema. No signs of hypoperfusion or volume overload.

Pulmonary

Clear to auscultation bilaterally, no crackles or wheezes. No accessory muscle use. Room air, no oxygen requirement. No dullness to suggest effusion.

5b ABDOMEN, VASCULAR, SKIN & NEUROLOGIC

Abdomen

Soft, non-tender, non-distended. No hepatomegaly, no ascites, no abdominal bruit.

Extremities / Vascular

Warm and well perfused throughout. No cyanosis or clubbing. No calf tenderness, no varicosities, no ulceration. Distal pulses intact in all four extremities.

Skin

Resolving ecchymosis over the distal right volar forearm measuring approximately 4 × 3 cm, yellow-green at the periphery. No diaphoresis, pallor, or cyanosis. No other surgical scars.

Neurologic

Alert and oriented × 3. Cranial nerves intact. No focal motor or sensory deficit. Normal gait and station.

AS ACCESS SITE / PROCEDURE SITE EXAMINATION

6 RIGHT RADIAL ACCESS SITE — DAY 5 POST-PCI

ACCESS SITE LOCATION

Radial

LATERALITY

Right

DRESSING STATUS

Removed POD 2; site open to air, epithelialized

DISTAL PULSES

Right radial 2+, right ulnar 2+

LIMB TEMPERATURE, COLOUR, SENSATION, STRENGTH

Warm, normal colour, sensation intact, grip 5/5

CAPILLARY REFILL

Under 2 seconds

Tenderness, bruising, hematoma, swelling, erythema, drainage, bleeding, pseudoaneurysm concern

Mild tenderness 3/10 on direct palpation of the puncture site. Ecchymosis 4 × 3 cm as described. Firm, well-circumscribed, non-pulsatile subcutaneous hematoma measuring 2.0 × 1.5 cm immediately proximal to the puncture, unchanged from the patient's description on POD 2. No erythema, no warmth, no drainage, no active bleeding. No pulsatile mass to suggest pseudoaneurysm.

Bruit or thrill over access site

None auscultated or palpated.

Signs of infection, vascular compromise, or expanding hematoma

None. Reverse Barbeau test confirms patent radial and ulnar flow with normal waveform. No evidence of radial artery occlusion, compartment tightness, or infection.

L CARDIAC TESTING / DIAGNOSTIC RESULTS

7 RESULTS REVIEWED OR ORDERED

EKG — 08/05/2026

Normal sinus rhythm at 62 bpm. PR 168 ms, QRS 92 ms, QTc 428 ms. Previously inverted T waves in V2–V4 are now upright. No new ST-segment deviation, no Q waves. Improved compared with 08/01.

Cardiac Biomarkers / Labs

hs-troponin T peak 3,412 ng/L (07/29) down-trending to 214 ng/L (08/02). Creatinine 1.28 mg/dL on 08/02 (baseline 1.21), eGFR 52 mL/min/1.73 m². Potassium 4.2, magnesium 2.0. Hemoglobin 11.8 g/dL (from 13.1 on admission), platelets 232 K. INR 1.0. LDL-C 148 mg/dL on admission, 61 mg/dL on 08/04. HbA1c 7.9%. NT-proBNP 118 pg/mL.

Echocardiogram — 07/30/2026

LVEF 46% by biplane Simpson. Mid-to-apical anteroseptal hypokinesis. Grade I diastolic dysfunction. Mild mitral regurgitation, trivial tricuspid regurgitation. Normal chamber dimensions. Estimated PASP 32 mmHg. No pericardial effusion.

Stress Testing

Deferred — the patient proceeded directly to invasive angiography given the NSTEMI presentation and elevated GRACE score.

Coronary Imaging

No coronary CTA or calcium score. Invasive angiography 07/30/2026: proximal LAD 90% eccentric lesion with hazy edges and TIMI 2 flow; second obtuse marginal 70% tubular lesion, FFR 0.86 (non-ischemic, deferred); mid RCA 30% smooth stenosis; left main angiographically normal. Diffuse mild calcification of the proximal LAD.

Cardiac Catheterization / PCI — 08/01/2026

Staged PCI of the proximal LAD via right radial access, 6F guide. IVUS-guided: reference vessel diameter 3.2 mm, minimum lumen area 2.1 mm², fibro-calcific plaque without deep calcium. Predilatation with 2.5 × 15 mm NC balloon, Xience Sierra drug-eluting stent 3.0 × 28 mm deployed at 16 atm, post-dilated with 3.25 × 12 mm NC at 18 atm. Final IVUS minimum stent area 7.2 mm² with good apposition and no edge dissection. Final TIMI 3 flow, no slow flow or no-reflow. Contrast volume 140 mL iodixanol. No periprocedural complications. TR band applied with patent hemostasis protocol.

Peripheral / Structural Imaging

Not indicated at this visit. No ABI, duplex, or structural heart imaging performed.

Prior Records Reviewed

Discharge summary 08/02/2026, diagnostic angiography and staged PCI reports with IVUS run data, inpatient medication reconciliation, transthoracic echocardiogram report, and full inpatient laboratory trend. Approximately 8 minutes of independent record review.

A ASSESSMENT

8 INTERVENTIONAL CARDIOLOGY CLINICAL INTERPRETATION

- **NSTEMI (type 1), culprit proximal LAD — successfully revascularized.** Complete resolution of anginal symptoms five days after IVUS-guided DES placement, with normalization of the anterior T-wave abnormality and appropriate biomarker down-trend. Angina is now CCS class 0.
- **Residual non-obstructive multivessel CAD.** OM2 lesion deferred on FFR 0.86 and mid-RCA 30% stenosis are physiologically insignificant. Medical therapy is the appropriate strategy; no staged intervention planned for either territory.
- **Right radial access site — stable, resolving hematoma without complication.** Non-pulsatile, non-expanding 2 cm hematoma with intact distal perfusion, no bruit or thrill, and a patent reverse Barbeau. No evidence of pseudoaneurysm, radial artery occlusion, compartment syndrome, or infection. Expected to resolve over 2–3 weeks.
- **Ischemic LV dysfunction, EF 46%.** Regional anteroseptal hypokinesis in the revascularized territory; recovery of function is plausible and warrants repeat imaging at 3 months to determine whether ICD risk stratification is required.
- **Bleeding risk on DAPT — acceptable.** Hemoglobin drop of 1.3 g/dL is consistent with the access-site hematoma and hemodilution; no mucosal or GI bleeding. ARC-HBR criteria are not met. Ticagrelor-associated dyspnea is mild and tolerable, not a reason to de-escalate at this time.
- **Contrast-associated renal risk — no acute kidney injury.** Creatinine rose 0.07 mg/dL after 140 mL of contrast in CKD 3a and requires confirmation of return to baseline before any further contrast exposure.
- **Poorly controlled cardiometabolic risk factors.** Type 2 diabetes at A1c 7.9%, obesity at BMI 31.4, partially treated OSA, and previously untreated hyperlipidemia. LDL-C is now 61 mg/dL on high-intensity statin but remains above the secondary-prevention target of under 55 mg/dL.
- **Disposition:** no further invasive workup indicated. Priority is DAPT continuity for 12 months, aggressive lipid and glycemic optimization, cardiac rehabilitation, and access-site surveillance.

P PLAN

9 INTERVENTIONAL CARDIOLOGY MANAGEMENT BY PROBLEM

- **Coronary disease and angina:** continue metoprolol succinate 25 mg daily; no antianginal escalation required given CCS 0. Sublingual nitroglycerin 0.4 mg as needed with written instructions to call 911 if chest pain persists beyond 5 minutes after the first dose. Continue lisinopril 5 mg daily for post-MI LV dysfunction with uptitration to 10 mg at the 4-week visit if systolic BP remains above 110 mmHg.
- **Antiplatelet therapy:** aspirin 81 mg daily indefinitely and ticagrelor 90 mg twice daily for a full 12 months to 08/2027 — explicitly counselled not to interrupt for dental or elective procedures without contacting this office. Ticagrelor dyspnea reviewed and expected to attenuate; will reassess at 4 weeks and consider a switch to clopidogrel only if it becomes limiting. Proton pump inhibitor not indicated (no GI bleeding history).
- **Access site:** no intervention required. Warm compresses twice daily, avoid lifting greater than 5 kg with the right arm for a further 7 days, avoid repetitive wrist extension. Return precautions given for expansion, pulsatility, new numbness, pallor, or fever. Recheck at the 4-week visit; duplex ultrasound only if the mass enlarges or becomes pulsatile.
- **Lipids:** continue atorvastatin 80 mg nightly. Add ezetimibe 10 mg daily today given LDL-C 61 mg/dL against a target under 55 mg/dL. Repeat lipid panel and hepatic panel in 6 weeks; if LDL-C remains above target, refer for PCSK9 inhibitor authorization.

- **Renal and contrast protection:** BMP in 7 days to confirm return to baseline creatinine. Avoid NSAIDs entirely. Document CKD 3a and the 140 mL contrast load in the chart for any future procedural planning; minimize contrast and pre-hydrate for any subsequent angiography.
- **Diabetes and weight:** continue empagliflozin 10 mg and metformin 1000 mg twice daily. Referred to endocrinology for A1c 7.9% with a request to consider a GLP-1 receptor agonist for combined glycemic and weight benefit. Registered dietitian referral placed.
- **Cardiac rehabilitation and activity:** phase II cardiac rehab confirmed to start 08/18/2026, twice weekly for 12 weeks. Cleared for unrestricted walking now; driving permitted; return to desk work part-time 08/17 and full-time 08/31.
- **Sleep apnea:** counselled on nightly CPAP adherence; download review requested from sleep medicine at 6 weeks.
- **Imaging surveillance:** repeat transthoracic echocardiogram at 3 months (11/2026) to reassess LVEF and determine the need for primary-prevention ICD evaluation if EF remains 35% or below.
- **Coordination:** note routed to Dr. Ganesh (primary cardiology) and Dr. Bell (primary care). Referrals placed to endocrinology, nutrition, and cardiac rehabilitation.
- **Patient education:** 18 minutes spent reviewing stent thrombosis risk with DAPT interruption, access-site warning signs, anginal symptom recognition, the 911 threshold, sodium and carbohydrate targets, and the rationale for LDL-C under 55 mg/dL. Written after-visit summary provided.

F FOLLOW-UP

10 REASSESSMENT PLAN

Follow-up timeframe and purpose

Interventional cardiology clinic in 4 weeks (09/02/2026) for symptom reassessment, access-site recheck, lisinopril and ticagrelor tolerance review, and cardiac rehab progress. Laboratory follow-up: BMP in 7 days; lipid and hepatic panel in 6 weeks. Primary cardiology with Dr. Ganesh in 3 months with repeat echocardiogram. Patient instructed to contact the office immediately for recurrent chest pain, expanding forearm mass, bleeding, or any recommendation to stop ticagrelor.

TB TIME DOCUMENTATION & BILLING

TOTAL TIME SPENT
35 minutes

COUNSELING / COORDINATION OF CARE TIME
18 minutes

RECORDS REVIEW TIME
8 minutes

TEST / CATH REPORT REVIEW TIME
6 minutes

PROCEDURE PLANNING TIME
Not applicable — no further intervention planned

BASIS FOR BILLING
Medical Decision Making (high complexity)

E/M LEVEL
99214 — established patient, moderate-to-high MDM

PROCEDURE CODE(S)
None performed this visit

DIAGNOSTIC TEST INTERPRETATION CODE(S)
93010 — EKG interpretation and report

PRIMARY ICD-10 DIAGNOSIS CODE
I21.4 — Non-ST elevation myocardial infarction

SECONDARY ICD-10 DIAGNOSIS CODE(S)
I25.110 — ASHD of native coronary artery with unstable angina; Z95.5 — Presence of coronary angioplasty implant and graft; I50.20 — Systolic heart failure, unspecified; N18.30 — CKD stage 3a; E11.9 — Type 2 diabetes mellitus; E78.5 — Hyperlipidemia; I10 — Essential hypertension; T81.4XXA — Hematoma complicating a procedure

SO PROVIDER SIGN-OFF

PROVIDER NAME	CREDENTIALS	SPECIALTY	DATE	TIME
Elena Vasquez, MD	MD, FACC, FSCAI	Interventional Cardiology	08/05/2026	4:42 PM