

CARDIOVASCULAR RISK ASSESSMENT LAB

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CARDIAC RISK ASSESSMENT REPORT

Report Date: January 25, 2024 | Accession #: C2024-009876

**Patient Name:** Robert Johnson (Test Patient)

**Medical Record #:** MR-2024-005

**Date of Collection:** January 25, 2024

**Physician:** Dr. Carlos Martinez

**Specimen Type:** Venous Blood

**Fasting Status:** 14 hours

**Current Medications:** Lisinopril 10mg daily, Atorvastatin 20mg daily

**DOB:** 05/12/1965

**Age:** 59 years

**Time of Collection:** 09:30 AM

**Department:** Cardiology

**Collection Site:** Right Antecubital

**Cardiac History:** Hypertension, Family Hx CAD

**Risk Factors:** Age, HTN, Dyslipidemia, Family History

CARDIAC MARKERS

Test	Result	Reference Range	Units	Status
Troponin I (High-Sensitivity)	< 0.04	< 0.04	ng/mL	Normal
CK-MB (Creatine Kinase-MB)	3.2	0.0 - 6.3	ng/mL	Normal
Total CK (Creatine Kinase)	120	30 - 200	U/L	Normal
LDH (Lactate Dehydrogenase)	180	140 - 280	U/L	Normal
Myoglobin	45	25 - 72	ng/mL	Normal
BNP (Brain Natriuretic Peptide)	85	< 125	pg/mL	Normal
NT-proBNP	85	< 125	pg/mL	Normal
D-Dimer	0.3	< 0.5	mg/L	Normal

INFLAMMATORY & RISK MARKERS

Test	Result	Reference Range	Units	Status
High-Sensitivity CRP	3.8	< 3.0	mg/L	Elevated
ESR (Erythrocyte Sedimentation Rate)	22	0 - 15	mm/hr	Elevated
Homocysteine	12	5 - 15	μmol/L	Normal
Fibrinogen	380	200 - 400	mg/dL	Borderline High
Plasminogen Activator Inhibitor-1	28	4 - 43	ng/mL	Normal
Lipoprotein-Associated Phospholipase A2	285	< 200	ng/mL	High
Interleukin-6	4.2	< 3.0	pg/mL	Elevated
Tumor Necrosis Factor-α	8.5	< 8.1	pg/mL	Borderline High

ADVANCED LIPID PANEL

Test	Result	Reference Range	Units	Status
Total Cholesterol	240	< 200	mg/dL	High
HDL Cholesterol	35	> 40	mg/dL	Low
LDL Cholesterol (Direct)	165	< 100	mg/dL	High
Non-HDL Cholesterol	205	< 130	mg/dL	High
Triglycerides	200	< 150	mg/dL	High
Apolipoprotein B	130	< 90	mg/dL	High
Apolipoprotein A-I	95	100 - 200	mg/dL	Low
Apo B/Apo A-I Ratio	1.37	< 0.9	Ratio	High
Lipoprotein(a)	35	< 30	mg/dL	Elevated
Small Dense LDL	45	< 25	%	High

ADDITIONAL CARDIAC MARKERS

Test	Result	Reference Range	Units	Status
Galectin-3	18	< 22	ng/mL	Normal
Soluble ST2	25	< 35	ng/mL	Normal
Growth Differentiation Factor-15	850	< 1200	pg/mL	Normal
Cardiac Troponin T (hs-cTnT)	< 6	< 14	ng/L	Normal
Heart-Type Fatty Acid Binding Protein	2.8	< 6.0	ng/mL	Normal
Ischemia-Modified Albumin	65	< 85	U/mL	Normal

<p><b>CLINICAL INTERPRETATION:</b></p> <ul style="list-style-type: none"><li>• <b>Cardiac Injury:</b> No evidence of acute cardiac injury. All cardiac markers (Troponin I, CK-MB, Myoglobin) are within normal limits, ruling out acute myocardial infarction.</li><li>• <b>Inflammatory Status:</b> Elevated hs-CRP (3.8 mg/L) and ESR (22 mm/hr) indicate increased systemic inflammation, which is associated with higher cardiovascular risk.</li><li>• <b>Lipid Profile:</b> Multiple lipid abnormalities including high total cholesterol (240 mg/dL), low HDL (35 mg/dL), high LDL (165 mg/dL), and elevated triglycerides (200 mg/dL). This represents a high-risk atherogenic profile.</li><li>• <b>Advanced Risk Markers:</b> Elevated Lipoprotein(a) at 35 mg/dL and high small dense LDL at 45% significantly increase cardiovascular risk beyond traditional lipid parameters.</li><li>• <b>Inflammatory Markers:</b> Elevated Lp-PLA2 (285 ng/mL) and IL-6 (4.2 pg/mL) suggest increased vascular inflammation and plaque instability.</li></ul> <p><b>RISK ASSESSMENT:</b></p> <ul style="list-style-type: none"><li>• <b>10-Year ASCVD Risk:</b> Estimated at 18.5% (High Risk Category)</li><li>• <b>Risk Factors:</b> Age 59, Hypertension, Dyslipidemia, Family History CAD, Elevated inflammatory markers</li><li>• <b>Risk Category:</b> High Risk (≥7.5% 10-year ASCVD risk)</li></ul> <p><b>RECOMMENDATIONS:</b></p> <ul style="list-style-type: none"><li>• <b>Lifestyle Modifications:</b> Strict low-saturated fat diet, regular aerobic exercise (150 min/week), smoking cessation if applicable</li><li>• <b>Medication Optimization:</b> Increase atorvastatin to 40mg daily for LDL goal &lt;70 mg/dL, consider ezetimibe if needed</li><li>• <b>Blood Pressure Control:</b> Target BP &lt;130/80 mmHg, consider adding calcium channel blocker</li><li>• <b>Monitoring:</b> Repeat lipid panel in 6 weeks, inflammatory markers in 3 months</li><li>• <b>Cardiology Follow-up:</b> Schedule stress test and consider coronary calcium scoring</li><li>• <b>Preventive Measures:</b> Daily low-dose aspirin (81mg) if no contraindications</li></ul>
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This report is for testing purposes only.

Report generated by: Cardiovascular Risk Laboratory System | Verified by: Dr. Sarah Williams, MD

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