

DIABETES CARE CENTER LABORATORY

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DIABETES MONITORING REPORT

Report Date: January 22, 2024 | Accession #: D2024-007890

Patient Name: Sarah Davis (Test Patient)

Medical Record #: MR-2024-004

Date of Collection: January 22, 2024

Physician: Dr. Patricia Anderson

Specimen Type: Venous Blood

Fasting Status: 12 hours

Current Medications: Metformin 500mg BID

DOB: 11/08/1970

Age: 54 years

Time of Collection: 08:00 AM

Department: Endocrinology

Collection Site: Left Antecubital

Diabetes Type: Type 2

Duration of Diabetes: 8 years

DIABETES CONTROL PANEL

Test	Result	Reference Range	Units	Status
Fasting Glucose	126	70 - 99	mg/dL	High
Random Glucose	180	< 140	mg/dL	High
HbA1c (Glycated Hemoglobin)	7.2	< 5.7%	%	High
Fructosamine	285	205 - 285	μmol/L	Borderline High
1,5-Anhydroglucitol	8.5	10.0 - 25.0	μg/mL	Low
Insulin	18	3 - 25	μIU/mL	Normal
C-Peptide	2.8	1.1 - 4.4	ng/mL	Normal
Glucagon	85	50 - 100	pg/mL	Normal

KIDNEY FUNCTION (Diabetic Monitoring)

Test	Result	Reference Range	Units	Status
Creatinine	1.1	0.6 - 1.2	mg/dL	Normal
BUN (Blood Urea Nitrogen)	18	7 - 20	mg/dL	Normal
eGFR (Estimated Glomerular Filtration Rate)	68	> 60	mL/min/1.73m²	Normal
BUN/Creatinine Ratio	16.4	10 - 20	Ratio	Normal
Microalbumin	45	< 30	mg/g creatinine	Elevated
Albumin/Creatinine Ratio	32	< 30	mg/g creatinine	Elevated
Urine Protein	150	< 150	mg/24h	Borderline High
Cystatin C	1.2	0.53 - 0.95	mg/L	High

LIPID PROFILE (Diabetic Dyslipidemia)

Test	Result	Reference Range	Units	Status
Total Cholesterol	220	< 200	mg/dL	High
HDL Cholesterol	38	> 40	mg/dL	Low
LDL Cholesterol (Calculated)	145	< 100	mg/dL	High
Triglycerides	185	< 150	mg/dL	High
Non-HDL Cholesterol	182	< 130	mg/dL	High
Cholesterol/HDL Ratio	5.8	< 5.0	Ratio	High
Apolipoprotein B	110	< 90	mg/dL	High
Lipoprotein(a)	25	< 30	mg/dL	Normal

ADDITIONAL DIABETIC MARKERS

Test	Result	Reference Range	Units	Status
Fasting Insulin	18	3 - 25	μIU/mL	Normal
HOMA-IR (Insulin Resistance)	5.6	< 2.0	Index	High
Adiponectin	4.2	4.0 - 25.0	μg/mL	Low
Leptin	28	3.0 - 18.0	ng/mL	High
High-Sensitivity CRP	4.2	< 3.0	mg/L	High
Homocysteine	12	5 - 15	μmol/L	Normal

<p>CLINICAL INTERPRETATION:</p> <ul style="list-style-type: none">• Diabetes Control: Poorly controlled diabetes with fasting glucose 126 mg/dL and HbA1c 7.2%, both above target levels. This indicates suboptimal glycemic control over the past 2-3 months.• Kidney Function: Early signs of diabetic kidney disease with microalbuminuria (45 mg/g creatinine) and elevated cystatin C. eGFR is still normal but trending downward.• Lipid Profile: Classic diabetic dyslipidemia pattern with high triglycerides, low HDL, and elevated LDL cholesterol. This significantly increases cardiovascular risk.• Insulin Resistance: HOMA-IR of 5.6 indicates significant insulin resistance, which is driving the hyperglycemia.• Inflammation: Elevated hs-CRP suggests increased cardiovascular risk and chronic inflammation. <p>RECOMMENDATIONS:</p> <ul style="list-style-type: none">• Medication Adjustment: Increase metformin to 1000mg BID and consider adding SGLT2 inhibitor or GLP-1 agonist• Lifestyle Modifications: Strict carbohydrate counting, regular exercise (150 min/week), weight loss of 5-10%• Cardiovascular Protection: Start statin therapy for LDL >100 mg/dL and consider ACE inhibitor for microalbuminuria• Monitoring: Weekly glucose monitoring, repeat HbA1c in 3 months, kidney function in 6 months• Referral: Consider diabetes educator consultation and cardiology evaluation for cardiovascular risk assessment• Target Goals: HbA1c <7.0%, fasting glucose 80-130 mg/dL, LDL <100 mg/dL
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This report is for testing purposes only.

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