

: Apr 10, 2025, 02:26 PM.

Patient NAME : Mrs Jeeri Deka

Sample Collected : Apr 10, 2025, 07:03 AM

DOB/Age/Gender : 29 Y/Female Report STATUS : Final Report

Patient ID / UHID : 12002825/RCL11281130 Barcode NO : 23583191

Referred BY : Self Sample Type : Whole blood EDTA

Test Description Value(s) Unit(s) Reference Range

Report Date

23AM-02HC HEALTHI

Complete Blood Count (CBC)

RBC Parameters			
Hemoglobin Spectrophotometry	12.3	g/dL	12.0 - 15.0
RBC Count	4.1	10^6/µl	3.8 - 4.8
Electrical impedance	7.1	10 0/μι	3.0 - 4.0
PCV	36.8	%	36 - 46
Calculated			
MCV	88.8	fl	83 - 101
Calculated			
MCH	29.7	pg	27 - 32
Calculated MCHC	33.5	g/dL	31.5 - 34.5
Calculated	33.5	g/aL	31.3 - 34.3
RDW (CV)	14.3	%	11.6 - 14.0
Calculated	15	,,,	11.6 11.6
RDW-SD	45.5	fl	35.1 - 43.9
Calculated			
WBC Parameters			
TLC	6.2	10^3/µl	4 - 10
Electrical impedance and microscopy			
Differential Leucocyte Count			
Neutrophils Flow-cytometry DHSS	42.3	%	40-80
Lymphocytes	47.5	%	20-40
Flow-cytometry DHSS	47.3	/6	20-40
Monocytes	8.8	%	2-10
Flow-cytometry DHSS			
Eosinophils	1.2	%	1-6
Flow-cytometry DHSS			
Basophils	0.2	%	<2
Flow-cytometry DHSS Absolute Leukocyte Counts			
Neutrophils.	2.62	10^3/µl	2 - 7
•			1 - 3
Lymphocytes. Calculated	2.95	10^3/µl	1 - 3
Monocytes.	0.55	10^3/µl	0.2 - 1.0
Calculated			
Eosinophils.	0.07	10^3/µl	0.02 - 0.5
Calculated			
Basophils.	0.01	10^3/µl	0.02 - 0.5
Calculated			





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Test Description	Value(s)	Unit(s)	Reference Range		
Platelet Parameters					
Platelet Count Electrical impedance and microscopy	296	10^3/µl	150 - 410		
Mean Platelet Volume (MPV) Calculated	11.8	fL	9.3 - 12.1		
PCT Calculated	0.3	%	0.17 - 0.32		
PDW Calculated	20.8	fL	8.3 - 25.0		
P-LCR Calculated	49.7	%	18 - 50		
P-LCC Calculated	147	10^9/L	44 - 140		
Mentzer Index	21.66				

Interpretation:

CBC provides information about red cells, white cells and platelets. Results are useful in the diagnosis of anemia, infections, leukemias, clotting disorders and many other medical conditions.





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Referred BY : Self Sample Type : Whole blood EDTA

Sample Collected : Apr 10, 2025, 07:03 AM Report Date : Apr 10, 2025, 03:50 PM.

Test Description Value(s) Unit(s) Reference Range

Erythrocyte Sedimentation Rate (ESR)

ESR - Erythrocyte Sedimentation Rate	10	mm/hr	0 - 12
MODIFIED WESTERGREN			

Interpretation:

ESR is also known as Erythrocyte Sedimentation Rate. An ESR test is used to assess inflammation in the body. Many conditions can cause an abnormal ESR, so an ESR test is typically used with other tests to diagnose and monitor different diseases. An elevated ESR may occur in inflammatory conditions including infection, rheumatoid arthritis ,systemic vasculitis, anemia, multiple myeloma, etc. Low levels are typically seen in congestive heart failure, polycythemia ,sickle cell anemia, hypo fibrinogenemia, etc.

Reference- Dacie and lewis practical hematology

Dr. Bansal Noopur KalyanPrasad Consultant Pathologist Reg No. 162022



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Patient ID / UHID : 12002825/RCL11281130 Barcode NO : 23583191

Referred BY : Self Sample Type : Whole blood EDTA

Sample Collected : Apr 10, 2025, 07:03 AM Report Date : Apr 10, 2025, 05:22 PM.

Test Description Value(s) Unit(s) Reference Range

HbA1C (Glycosylated Haemoglobin)

Glycosylated Hemoglobin (HbA1c) HPLC	4.8	%	<5.7
Estimated Average Glucose	91.06	mg/dL	-
calculated.			

Interpretation:

Interpretation For HbA1c% As per American Diabetes Association (ADA)

Reference Group	HbA1c in %
Non diabetic adults >=18 years	<5.7
At risk (Prediabetes)	5.7 - 6.4
Diagnosing Diabetes	>= 6.5
Therapeutic goals for glycemic control	Age > 19 years Goal of therapy: < 7.0 Age < 19 years Goal of therapy: <7.5

Note:

- 1. Since HbA1c reflects long term fluctuations in the blood glucose concentration, a diabetic patient who is recently under good control may still have a high concentration of HbA1c. Converse is true for a diabetic previously under good control but now poorly controlled.
- 2. Target goals of < 7.0 % may be beneficial in patients with short duration of diabetes, long life expectancy and no significant cardiovascular disease. In patients with significant complications of diabetes, limited life expectancy or extensive co-morbid conditions, targeting a goal of < 7.0 % may not be appropriate.

Comments:

HbA1c provides an index of average blood glucose levels over the past 8 - 12 weeks and is a much better indicator of long term glycemic control as compared to blood and urinary glucose determinations ADA criteria for correlation between HbA1c & Mean plasma glucose levels.

HbA1c(%)	Mean Plasma Glucose (mg/dL)	HbA1c(%)	Mean Plasma Glucose (mg/dL)
6	126	12	298
8	183	14	355
10	240	16	413





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Patient ID / UHID : 12002825/RCL11281130 Barcode NO : 23689158
Referred BY : Self Sample Type : FLUORIDE F

Sample Collected : Apr 10, 2025, 07:03 AM Report Date : Apr 10, 2025, 02:42 PM.

Test Description Value(s) Unit(s) Reference Range

Glucose Fasting

Glucose Fasting	70	mg/dL	70 - <100
Hexokinase			

Interpretation:

Status	Fasting plasma glucose in mg/dL
Normal	<100
Impaired fasting glucose	100 - 125
Diabetes	=>126

Reference: American Diabetes Association

Comment:

Blood glucose determinations in commonly used as an aid in the diagnosis and treatment of diabetes. Elevated glucose levels (hyperglycemia) may also occur with pancreatic neoplasm, hyperthyroidism, and adrenal cortical hyper function as well as other disorders. Decreased glucose levels (hypoglycemia) may result from excessive insulin therapy insulinoma, or various liver diseases.

Note

- 1. The diagnosis of Diabetes requires a fasting plasma glucose of > or = 126 mg/dL or a random / 2 hour plasma glucose value of > or = 200 mg/dL with symptoms of diabetes mellitus.
- 2. Very high glucose levels (>450 mg/dL in adults) may result in Diabetic Ketoacidosis.

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Patient ID / UHID : 12002825/RCL11281130 : BI26072069 Barcode NO Referred BY : Self Sample Type : Serum

Sample Collected: Apr 10, 2025, 07:03 AM Report Date : Apr 10, 2025, 05:51 PM.

Test Description Value(s) Unit(s) Reference Range

Liver Function Test (LFT)

Bilirubin Total diazonium salt	0.22	mg/dL	0.2 - 1.2
Bilirubin Direct Diazo Reaction	0.12	mg/dL	0.0 - 0.5
Bilirubin Indirect Calculation (T Bil - D Bil)	0.1	mg/dL	0.1 - 1.0
SGOT/AST Enzymatic {NADH (without P5P)}	22	U/L	5 - 34
SGPT/ALT Enzymatic {NADH (without P5P)}	10	U/L	0 to 55
SGOT/SGPT Ratio calculated	2.2	-	-
Alkaline Phosphatase paranitrophenyl phosphate	81	U/L	40 - 150
Total Protein Biuret	6.8	g/dL	6.4 - 8.3
Albumin BCG	4.5	gm/dL	3.8 - 5.0
Globulin Calculation (T.P - Albumin)	2.3	g/dL	2.3 - 3.5
Albumin :Globulin Ratio Calculation (Albumin/Globulin)	1.96	-	1.0 - 2.1
Gamma Glutamyl Transferase (GGT) Photometric	13	U/L	9 to 36

Interpretation:

The liver filters blood, metabolizes nutrients, detoxifies harmful substances, and produces blood clotting proteins. Liver cells contain enzymes that facilitate these functions. When cells are damaged, enzymes leak into the blood, detectable through blood tests.

Key enzymes tested:

- 1. AST (SGOT): may indicate tissue injury / damage in muscles or liver.
- 2. ALT (SGPT): Primarily in the liver. Elevated ALT and AST suggest liver damage.
- 3. Alkaline Phosphatase & GGT: Linked to bile production and flow. Elevated levels may indicate bile flow issues related to the liver, gallbladder, or bile ducts.

Blood proteins, albumin and globulin, are essential for growth, development, and health.

- 1. Low protein: May indicate bleeding, liver disorders, malnutrition, or agammaglobulinemia.
- 2. High protein (Hyperproteinemia): Often due to dehydration or increased protein production.
- 3. Low albumin: Caused by poor diet, kidney, or liver disease.
- 4. High albumin: Usually due to severe dehydration.







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Patient ID / UHID : 12002825/RCL11281130 : BI26072069 Barcode NO Referred BY : Self Sample Type

Sample Collected: Apr 10, 2025, 07:03 AM Report Date : Apr 10, 2025, 05:09 PM.

Test Description Value(s) Unit(s) Reference Range

: Serum

Kidney Function Test (KFT)

Blood Urea Calculated	18.832	mg/dL	19 - 44.1
Bun Urease	8.8	mg/dL	7.0 - 18.7
Creatinine kinetic alkaline picrate	0.67	mg/dL	0.57 - 1.11
eGFR (CKD-EPI)	121.25	ml/min/1.73 sq m	Normal Or High: >= 90
			Mild Or Decrease: 60-89
			Mild To Moderate Decrease: 45-59
			Mild To Severe Decrease: 30-44
			Severe Decrease: 15-29
			Kidney Failure: < 15
Bun/Creatinine Ratio calculated	13.13		12 - 20
Urea / Creatinine Ratio Calculated	28.11		25.68- 42.8
Uric Acid Uricase	4.3	mg/dL	2.6 - 6.0
Calcium Serum Arsenazo III	8.3	mg/dL	8.4 - 10.2
Phosphorus phosphomolybdate.	4.4	mg/dL	2.3 - 4.7
Sodium Ion selective Electrode-Indirect.	140	mmol/L	136 - 145
Potassium Ion selective Electrode-Indirect.	4.2	mmol/L	3.5 - 5.1
Chloride Ion selective Electrode-Indirect.	107	mmol/L	98 - 107

Interpretation:

Kidney function tests is a collective term for a variety of individual tests and proceduresthat can be done to evaluate how well the kidneys are functioning. Many conditions can affect the ability of the kidneys to carryout their vital functions. Somelead to a rapid (acute) decline in kidney functionothers lead to a gradual (chronic) declineinfunction. Both result in a buildup of toxic waste subst done on urine samples, as well as on blood samples. A number of symptoms may indicate a problem with your kidneys. These include: high blood pressure, blood in urine frequent urges to urinate, difficulty beginning urination, painful urination, swelling in the hands and feet due to a buildup of fluids in the body. A single symptom may not mean something serious. However, when occurring simultaneously, these symptoms suggest that your kidneys are not working properly. Kidney function tests can help determine the reason. Electrolytes are present in the human body and the balancing act of the electrolytes in our bodies is essential for normal function of our cells and organs. There has to be a balance. Ionized calcium this test if you have signs of kidney or parathyroid disease. The test may also be done to monitor progress and treatment of these diseases.

"eGFR test is applicable for patients aged 18 years or more."





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Sample Collected : Apr 10, 2025, 07:03 AM : Apr 10, 2025, 05:51 PM. **Test Description** Value(s) Unit(s) Reference Range

Report Date

Lipid Profile

Total Cholesterol enzymatic CHOD-PAP	148	mg/dL	<200
Triglycerides Glycerol phosphate oxidase	69	mg/dL	<150
HDL Cholesterol cholesterol oxidase and peroxidase	70	mg/dL	>40
Non HDL Cholesterol Calculated	78	mg/dL	<130
LDL Cholesterol Calculated	64.2	mg/dL	<100
V.L.D.L Cholesterol Calculated	13.8	mg/dL	< 30
Chol/HDL Ratio Calculated	2.11	Ratio	3.5 - 5.0
HDL/ LDL Ratio Calculated	1.09	Ratio	0.5 - 3.0
LDL/HDL Ratio Calculated	0.92	Ratio	-

Interpretation:

Lipid level assessments must be made following 9 to 12 hours of fasting, otherwise assay results might lead to erroneous interpretation. NCEP recommends of 3 different samples to be drawn at intervals of 1 week for harmonizing biological variables that might be encountered in single assays.

National Lipid Association Recommendations (NLA-2014)				Non HDL Cholesterol (mg/dL)
Optimal	<200	<150	<100	<130
Above Optimal			100-129	130 - 159
Borderline High	200-239	150-199	130-159	160 - 189
High	>=240	200-499	160-189	190 - 219
Very High	-	>=500	>=190	>=220

HDL Cholesterol	
Low	High
<40	>=60

Risk Stratification for ASCVD (Atherosclerotic Cardiovascular Disease) by Lipid Association of India.

Risk Category A. CAD with > 1 feature of high risk group	
Extreme risk group B. CAD with >1 feature of very high risk group of recurrent ACS (within 1 year) despite LDL-C <or 50="" =="" disease<="" dl="" mg="" or="" poly="" th="" vascular=""></or>	
Very High Risk	1.Established ASCVD 2.Diabetes with 2 major risk factors of evidence of end organ damage 3. Familial Homozygous Hypercholesterolemia
1. Three major ASCVD risk factors 2. Diabetes with 1 major risk factor or no evidence	

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High Risk	of end organ damage 3. CHD stage 3B or 4. 4 LDL >190 mg/dl 5. Extreme of a single risk factor 6. Coronary Artery Calcium - CAC > 300 AU 7. Lipoprotein a >/= 50 mg/dl 8. Non stenotic carotid plaque			
Moderate Risk	2 major ASCVD risk factors			
Low Risk	0-1 major ASCVD risk factors	-1 major ASCVD risk factors		
M	ajor ASCVD (Atherosclerotic	cardiovascular disease) F	Risk Factors	
1. Age >/=45 years in Males & >/= 55 years in Females	3. Current Cigarette smoking or toba	acco use		
2. Family history of premature ASCVD	4. High blood pressure			
5. Low HDL				

Newer treatment goals and statin initiation thresholds based on the risk categories proposed by Lipid Association of India in 2020.

Risk Group	Treatment Goals	Treatment Goals		
	LDL-C (mg/dl)	Non-HDL (mg/dl)	LDL-C (mg/dl)	Non-HDL (mg/dl)
Extreme Risk Group Category A	<50 (Optional goal <or 30)<="" =="" td=""><td><80 (Optional goal <or 60)<="" =="" td=""><td>>OR = 50</td><td>>OR = 80</td></or></td></or>	<80 (Optional goal <or 60)<="" =="" td=""><td>>OR = 50</td><td>>OR = 80</td></or>	>OR = 50	>OR = 80
Extreme Risk Group Category B	>OR = 30	>OR = 60	> 30	> 60
Very High Risk	<50	<80	>OR = 50	>OR = 80
High Risk	<70	<100	>OR = 70	>OR = 100
Moderate Risk	<100	<130	>OR = 100	>OR = 130
Low Risk	<100	<130	>OR = 130*	>OR = 160

^{*} After an adequate non-pharmacological intervention for at least 3 months.

References: Management of Dyslipidaemia for the Prevention of Stroke: Clinical practice Recommendations from the Lipid Association of India. Current Vascular Pharmacology,2022,20,134-155.





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Iron Studies

Iron Ferrozine	66	μg/dL	50 - 170
TIBC,(Total Iron Binding Capacity) Calculated	280	μg/dL	250 - 450
UIBC Ferrozine	214	μg/dL	70 - 310
Transferrin Saturation Calculated	23.57	%	14 - 50

Interpretation:

Increased levels due to iron ingestion or ineffective erythropoiesis. Decreased levels due to infection, inflammation, malignancy, menstruation and Fe deficiency. Needs to be taken into consideration with TIBC. Transferrin Saturation: Low level Transferrin Saturation can indicate iron deficiency, erythropoiesis, infection, or inflammation. High level Transferrin Saturation can indicate recent ingestion of dietary iron, ineffective erythropoiesis, haemochromatosis or liver disease. High TIBC, UIBC, or transferrin usually indicates iron deficiency, but they are also increased in pregnancy and with the use of oral contraceptives. Low TIBC, UIBC, or transferrin may occur if someone has: Hemochromatosis, Certain types of anemia due to accumulated iron, Malnutrition, kidney disease that causes a loss of protein in urine.

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Test Description Value(s) Unit(s) Reference Range

High Sensitivity C-Reactive Protein (Hs-CRP)

HIGHLY SENSITIVE C-REACTIVE PROTEIN (hs-	0.56	mg/L	< 1.00
CRP)			
immunoturbidimetric			

Interpretation:

Cardio CRP In mg/L	Cardiovascular Risk		
<1	Low		
1-3	Average		
3-10	High		
>10	Persistent elevation may represent Non cardiovascular inflammation		

Note: To assess vascular risk, it is recommended to test hsCRP levels 2 or more weeks apart and calculate the average

Comments:

High sensitivity C Reactive Protein (hsCRP) significantly improves cardiovascular risk assessment as it is a strongest predictor of future coronary events. It reveals the risk of future Myocardial infarction and Stroke among healthy men and women, independent of traditional risk factors. It identifies patients at risk of first Myocardial infarction even with low to moderate lipid levels. The risk of recurrent cardiovascular events also correlates well with hsCRP levels. It is a powerful independent risk determinant in the prediction of incident Diabetes.

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Sample Collected : Apr 10, 2025, 07:03 AM Report Date : Apr 10, 2025, 06:06 PM.

Test Description Value(s) Unit(s) Reference Range

Vitamin B12 / Cyanocobalamin

Vitamin - B12	232	pg/mL	187 - 883
CMIA			

Interpretation:

Low Values are a sign of a vitamin B12 deficiency. People with this deficiency are likely to have or develop symptoms.

Causes of vitamin B12 deficiency include:Not enough vitamin B12 in diet (rare except with a strict vegetarian diet), Diseases that cause malabsorption (for example, celiac disease and Crohn's disease), Lack of intrinsic factor, Above normal heat production (for example, with hyperthyroidism), Pregnancy. Increased vitamin B12 levels are uncommon. Usually excess vitamin B12 is removed in the urine. Conditions that can increase B12 levels include: Liver disease (such as cirrhosis or hepatitis), Myeloproliferative disorders (for example, polycythemia vera and chronic myelocytic leukemia).

Vitamin B12: Low Levels can cause malabsorption, Lack of intrinsic factor, Above normal heat production (for example, with hyperthyroidism), Pregnancy. High Level Liver disease, Myeloproliferative disorders (for example, polycythemia vera and chronic myelocytic leukemia).

1. Out of 140 healthy indian population, 91% of Vitamin B 12 concentrations was at lower level: 59.00 pg/ml and upper level: 700.00 pg/ml

"Patients on Biotin supplement may have interference in some immunoassays. Ref: Arch Pathol Lab Med—Vol 141, November 2017. With individuals taking high dose Biotin (more than 5 mg per day) supplements, at least 8-hour wait time before blood draw is recommended."

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Referred BY: Self: Sample Type: Serum:

Sample Collected: Apr 10, 2025, 07:03 AM: Report Date: Apr 10, 2025, 06:06 PM.

Test Description Value(s) Unit(s) Reference Range

Vitamin D 25 Hydroxy

Vitamin D 25 - Hydroxy CMIA	11.32	ng/mL	Deficiency:<10ng/ml Insufficient:10-30ng/ml
CIVILA			Sufficient:>30-100ng/ml
			Hypervitaminosis:>100ng/ml

Interpretation:

25-Hydroxy vitamin D represents the main body reservoir and transport form. Mild to moderate deficiency is associated with Osteoporosis / Secondary Hyperparathyroidism while severe deficiency causes Rickets in children and Osteomalacia in adults. Prevalence of Vitamin D deficiency is approximately >50% specially in the elderly. This assay is useful for diagnosis of vitamin D deficiency and Hypervitaminosis D. It is also used for differential diagnosis of causes of Rickets & Osteomalacia and for monitoring Vitamin D replacement therapy.

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Test Description Value(s) Unit(s) Reference Range

Thyroid Profile Total

Triiodothyronine (T3)	66.6	ng/dL	35 - 193
CMIA			
Total Thyroxine (T4)	5.95	μg/dL	4.87 - 11.2
CMIA			
Thyroid Stimulating Hormone (Ultrasensitive)	2.69	μIU/mL	0.35 - 4.94
CMIA			

Interpretation:

Pregnancy	Refrence Range TSH
1st Trimester	0 .1 - 2.5
2nd Trimester	0.2 - 3.0
3rd Trimester	0.3 - 3.0

Clinical Use:

- 1. Diagnose Hypothyroidism & Hyperthyroidism
- 2. Monitor T4 therapy
- 3. Measure subnormal TSH levels

Increased TSH: Primary hypothyroidism, Subclinical hypothyroidism, TSH-dependent hyperthyroidism, Thyroid hormone resistance Decreased TSH: Graves' disease, Autonomous thyroid hormone secretion, TSH deficiency

Thyroid malfunction (hyper or hypo) affects T3 & T4 levels. Pituitary or hypothalamic issues also influence thyroid activity.

- 1. Primary Hypothyroidism: High TSH levels.
- $\textbf{2. Secondary/Tertiary Hypothyroidism:} \ \mathsf{Low} \ \mathsf{TSH} \ \mathsf{levels}.$
- 3. Euthyroid Sick Syndrome: Abnormal thyroid test results due to non-thyroidal illnesses (NTI).

TBG levels are stable in healthy individuals but may be altered by pregnancy, estrogens, androgens, steroids, or glucocorticoids, causing inaccurate T3 & T4 readings.

TSH	T4	T3	Interpretation
High	Normal	Normal	Mild (subclinical) hypothyroidism
High	Low	Low Or Nomral	Hypothyroidism
Low	Normal	Normal	Mild (subclinical) hyperthyroidism
Low	High Or Normal	High Or Normal	Hyperthyroidism
Low	Low Or Normal	Low Or Normal	Nonthyroidal illness; pituitary (secondary) hypothyroidism
Normal	High	High	Thyroid hormone resistance syndrome (a mutation in the thyroid hormone receptor decreases thyroid hormone function)





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Test Description Value(s) Unit(s) Reference Range

23AM-04HC HEALTHI

FT3 (Free Triiodothyronine 3)

T3, Free CMIA	2.38	pg/mL	1.4 - 4.4
			Pregnancy : 2.0 - 3.8

Interpretation:

- 1. Triiodothyronine (T3) is one of the two primary thyroid hormones the thyroid gland produces, along with thyroxine (T4). T3 regulates metabolism, energy production, growth, and development throughout the body.
- 2. Free T3 refers to the portion of T3 that is unbound to proteins in the blood and is considered the active form of the hormone. It represents the fraction of T3 available for cellular uptake and metabolic activity.
- 3. The free T3 blood test assesses thyroid function and diagnoses thyroid disorders, such as hyperthyroidism (overactive thyroid) or hypothyroidism (underactive thyroid). It provides valuable information about the body's metabolic rate and thyroid hormone status.

FT4 (Free Thyroxine 4)

T4, Free	0.96	ng/dL	0.8 - 1.8
CMIA		-	

Interpretation:

- 1. Free T4 is the unbound and active form of thyroxine, a hormone produced by the thyroid gland that helps regulate metabolism, energy production, and overall growth and development. Interpreting free T4 levels helps diagnose thyroid function disorders.
- 2. Low free T4 levels, indicative of hypothyroidism, can result from several causes. Primary hypothyroidism occurs when the thyroid gland itself is underactive, often due to Hashimoto's thyroiditis, iodine deficiency, or thyroid surgery. Secondary hypothyroidism arises when the pituitary gland fails to produce sufficient thyroid-stimulating hormone (TSH) to activate the thyroid, commonly due to pituitary disorders. Tertiary hypothyroidism is caused by the hypothalamus failing to produce enough thyrotropin-releasing hormone (TRH), which leads to decreased production of TSH and subsequently T4.
- 3. High free T4 levels, indicative of hyperthyroidism, can be caused by various conditions. Graves' disease, an autoimmune disorder, overstimulates the thyroid gland, leading to excessive hormone production. Overactive thyroid nodules can also contribute to high free T4 levels by producing excess hormone independently. Thyroiditis, an inflammation of the thyroid, can release stored hormones into the bloodstream, causing elevated levels. Overmedication with thyroid hormone replacement can also result in high free T4 levels.

Dr. Bansal Noopur KalyanPrasad Consultant Pathologist Reg No. 162022



Booking Centre:- Svasth Noida,.





Patient NAME : Mrs Jeeri Deka

DOB/Age/Gender : 29 Y/Female Report STATUS : Final Report

Patient ID / UHID : 12002825/RCL11281130 Barcode NO : BI26072069
Referred BY : Self Sample Type : Serum

Sample Collected : Apr 10, 2025, 07:03 AM Report Date : Apr 10, 2025, 06:06 PM.

Test Description Value(s) Unit(s) Reference Range

Luteinizing Hormone (LH)

Luteinising Hormone-LH	4.6	mIU/mL	Follicular Phase 1.80 -	
CMIA			11.78	
			Mid-Cycle Peak 7.59 - 89.08	
			Luteal Phase 0.56 - 14.00	
			Postmenopausal Females	
			Without HRT 5.16 - 61.99	

Interpretation:

Clinical Use

- · Diagnosis of gonadal function disorders
- · Diagnosis of pituitary disorders

Increased levels

- · Primary hypogonadism
- · Gonadotropin secreting pituitary tumors

Decreased levels

- · Hypothalamic GnRH deficiency
- · Pituitary LH deficiency
- · Ectopic steroid hormone production
- · GnRH analog treatment

Follicle Simulating Hormone (FSH)

Follicle Stimulating Hormone-FSH	5.27	mIU/mL	Normally Menstruating
CMIA			Females
			Follicular Phase 3.03 - 8.08
			Mid-Cycle Peak 2.55 - 16.69
			Luteal Phase 1.38 - 5.47
			Postmenopausal Females
			26.72 - 133.41

Interpretation:

Clinical Use

- 1. Diagnosis of gonadal function disorders
- 2. Management and treatment of infertility in both genders

Increased levels

- 1. Primary hypogonadism
- 2. Gonadotropin secreting pituitary tumors
- 3. Menopause

Decreased levels

- 1. Hypothalamic GnRH deficiency
- 2. Pituitary FSH deficiency
- 3. Ectopic steroid hormone production





Booking Centre:- Svasth Noida,.







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DOB/Age/Gender : 29 Y/Female Report STATUS : Final Report Patient ID / UHID : 12002825/RCL11281130 Barcode NO : BI26072069

Referred BY : Self Sample Type : Serum

Sample Collected : Apr 10, 2025, 07:03 AM Report Date : Apr 10, 2025, 06:06 PM.

Test Description Value(s) Unit(s) Reference Range

Prolactin (PRL)

Prolactin	35.35	ng/mL	5.18 - 26.53
CMIA			

Interpretation:

Note:

- 1. Since prolactin is secreted in a pulsatile manner and is also influenced by a variety of physiologic stimuli, it is recommended to test 3 specimens at 20-30 minute intervals after pooling.
- 2. Major circulating form of Prolactin is a nonglycosylated monomer, but several forms of Prolactin linked with immunoglobulin occur which can give falsely high Prolactin results.
- 3. Macroprolactin assay is recommended if prolactin levels are elevated, but signs and symptoms of hyperprolactinemia are absent or pituitary imaging studies are normal
- 4. Kindly note Serum prolactin for lactating mothers is 79-400 ng/ml.

Clinical Use

- · Diagnosis & management of pituitary adenomas
- · Differential diagnosis of male & female hypogonadism

Increased Levels

- · Physiologic: Sleep, stress, postprandially, pain, coitus
- · Systemic disorders: Chest wall or thoracic spinal cord lesions, Primary / Secondary hypothyroidism, Adrenal insufficiency, Chronic renal failure. Cirrhosis
- · Medications: Psychiatric medications like Phenothiazine, Haloperidol, Risperidone, Domperidone, Fluoexetine, Amitriptylene, MAO inhibitors etc.,

 $\textbf{Antihypertensives} : \textbf{Alphamethyldopa}, \, \textbf{Reserpine}, \, \textbf{Verapamil}$

Opiates: Heroin, Methadone, Morphine, Apomorphine

Cimetidine / Ranitidine

- · Prolactin secreting pituitary tumors: Prolactinoma, Acromegaly
- · Miscellaneous: Epileptic seizures, Ectopic secretion of prolactin by non-pituitary tumors, pressure / transaction of pituitary stalk, macroprolactinemia
- · Idiopathic

Decreased levels

- · Pituitary deficiency: Pituitary necrosis / infarction
- · Bromocriptine administration
- · Pseudohypoparathyroidism

Dr. Bansal Noopur KalyanPrasad Consultant Pathologist Ree No. 162022



Booking Centre:- Svasth Noida,.







Patient NAME : Mrs Jeeri Deka

DOB/Age/Gender : 29 Y/Female Report STATUS : Final Report Patient ID / UHID : 12002825/RCL11281130 Barcode NO : BI26072069

Referred BY : Self Sample Type : Serum

Sample Collected : Apr 10, 2025, 07:03 AM Report Date : Apr 10, 2025, 06:13 PM.

Test Description Value(s) Unit(s) Reference Range

23AM-02HC HEALTHI

CA 125 (Ovarian Cancer Marker)

CA 125 OVARIAN CANCER MARKER, SERUM	10.3	U/mL	<35
CMIA			

Interpretation:

CA 125 is a surface antigen, identified as a 200 - 1000 kDa mucin-like glycoprotein associated with non-mucinous epithelial ovarian malignancy. CA 125 is a useful tumor marker for evaluating therapy and monitoring disease status

in patients under treatment for ovarian cancer. Measured serially the levels of CA 125 correspond with disease progression or regression. The rate of change in CA 125 is also highly prognostic. As a diagnostic tool however, the level of CA 125 alone is not sufficient to determine the presence of extent of disease. Levels of CA 125 should not be interpreted as absolute evidence of the presence or the absence of malignant disease. Before treatment, patients

with confirmed ovarian carcinorma frequently have levels of CA 125 within the range observed in healthy regarding the histological grade or diameter of the tumor mass.

Elevated levels of CA 125 can be observed in patients with nonmalignant diseases. Patients with certain benign conditions, such as hepatic cirrhosis, acute pancreatitis, endometriosis, pelvic inflammatory disease, menstruation and first trimester pregnancy show elevated levels of CA 125. Elevated levels are also found in 1 to 2 % of healthy donors.

Measurements of CA 125 sholud always be used in conjunction with other diagnostic procedures, including information from the patients clinical evaluation. The concentration of CA 125 in a given specimen determined with assays from different manufacturers can vary due to differences in assay methods, calibration, and reagent specificity. Values obtained with different assay methods cannot be used interchangeably. Heterophilic antibodies in human serum can react with reagent immunoglobulins, interfering with in vitro immunoassays. Patients routinely exposed to animal or to animal serum products can be prone to this interference and anomalous values may be observed

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Referred BY : Self Sample Type : Serum

Sample Collected: Apr 10, 2025, 07:03 AM Report Date : Apr 10, 2025, 06:06 PM.

Test Description Value(s) Unit(s) Reference Range

23AM-04HC HEALTHI

Insulin Fasting

Insulin (Fasting)	1.6	μU/mL	<25.0
CMIA			

Interpretation:

- 1. A single random blood sample for insulin may provide insufficient information due to wide variation in the time responses of insulin levels and blood glucose.
- 2. Stimulation of insulin secretion may be caused by many factors like hyperglycemia, glucagon, amino acids, growth hormone and catecholamines.
- 3. Interference in insulin assay is seen due to insulin antibodies which develop in patients treated with bovine or porcine insulin.

Clinical Utility

- 1. Evaluation of fasting hypoglycemia
- 2. Evaluation of Polycystic Ovary syndrome
- 3. Classification of Diabetes mellitus
- 4. Predict Diabetes mellitus
- 5. Assessment of Beta cell activity
- 6. Select optimal therapy for Diabetes
- 7. Investigation of insulin resistance
- 8. Predict the development of Coronary Artery Disease

Increased levels - Insulinoma, Some Type II diabetic patients, Infantile hypoglycemia, Hyperinsulinism, Obesity, Cushing's syndrome, Oral contraceptives, Acromegaly, Hyperthyroidism

Decreased levels - Untreated Type I Diabetes mellitus





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Patient NAME : Mrs Jeeri Deka

DOB/Age/Gender : 29 Y/Female Report STATUS: Final Report : 12002825/RCL11281130 Patient ID / UHID : BI26072069 Barcode NO

Referred BY : Self Sample Type : Serum

Sample Collected: Apr 10, 2025, 07:03 AM Report Date : Apr 10, 2025, 05:09 PM.

Test Description Value(s) Unit(s) Reference Range

23AM-02HC HEALTHI

Lipoprotein (A)

Lipoprotein A (Lipo A)	34.5	mg/dL	up to 30
Immunoturbidimetric			

Interpretation:

Note:

Lp(a) is considered an important risk factor for CHD especially among Indians as Indians tend to have high prevalence of elevated levels of Lp(a)

Lp(a) in mg/dL	
(As per Lipid Association of India 2016)	REMARKS
<30	Low risk
30-49	Moderate Risk
>= 50	High risk

Comments:

Lipoprotein (a) [Lp(a)] consists of an LDL particle that is covalently bound to an additional protein, apolipoprotein (a) [Apo(a)]. Apo(a) has high-sequence homology with the coagulation factor plasminogen and, like LDL, Lp(a) contains apolipoprotein B100 (ApoB). Thus, Lp(a) is both proatherogenic and prothrombotic. Lp(a) is an independent risk factor for Coronary Heart Disease (CHD), Ischemic Stroke, and Aortic Valve Stenosis. Lp(a) is highly heterogenous molecule; the degree of atherogenicity of the Lp(a) particle may depend on the molecular size of the Lp(a)-specific protein. Serum concentrations of Lp(a) are related to genetic factors, and are largely unaffected by diet, exercise and lipid -lowering pharmaceuticals. However, in a patient with additional modifiable CHD risk factors, more aggressive therapy to normalize these factors may be indicated if the Lp(a) value is also increased.

Evaluation of increased risk for cardiovascular disease and events:

- 1. In individuals at intermediate risk for cardiovascular disease
- 2. In patients with early atherosclerosis or
- 3. In patients with strong family history of early CHD





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Patient NAME : Mrs Jeeri Deka

DOB/Age/Gender : 29 Y/Female Report STATUS : Final Report Patient ID / UHID : 12002825/RCL11281130 Barcode NO : BI26072069

Referred BY : Self Sample Type : Serum

Sample Collected : Apr 10, 2025, 07:03 AM Report Date : Apr 10, 2025, 05:09 PM.

Test Description Value(s) Unit(s) Reference Range

Apolipoproteins A1 & B

Apolipoprotein A-1 (APO-A)	184	mg/dL	104 - 202
Tina-quant		_	
Apolipoprotein B (APO-B) Tina-quant	46	mg/dL	66 - 144
Apo B / Apo A1 Ratio	0.25		

Interpretation:

The Apo A1 and Apo B blood tests are crucial for assessing lipid metabolism and cardiovascular risk. High Apo A1 and low Apo B levels are associated with a lower risk of cardiovascular disease, while low Apo A1 and high Apo B levels indicate a higher risk. Management involves lifestyle modifications, medications, and regular monitoring to maintain optimal lipid levels and reduce cardiovascular risk. Consulting healthcare providers for accurate interpretation and tailored treatment plans is essential for effective management.





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Patient NAME : Mrs Jeeri Deka

DOB/Age/Gender : 29 Y/Female Report STATUS : Final Report Patient ID / UHID : 12002825/RCL11281130 Barcode NO : 26072069

Referred BY: Self: Sample Type: Serum: Sample Collected: Apr 10, 2025, 07:03 AM: Report Date: Apr 10, 2025, 04:10 PM.

Test Description Value(s) Unit(s) Reference Range

Hepatitis B Surface Antigen (HBsAg), Rapid Card

HEPATITIS B SURFACE ANTIGEN (HBsAg) Qualitative immunoassay,rapid card		NON REACTIVE	
Interpretation:			
RESULTS	REMARKS		
Reactive	ctive The sample is Reactive for HBsAg		
Non Reactive	ve The sample is Non Reactive for HBsAg		

Note

- 1. This is only a Screening test. All reactive results should be confirmed by confirmatory test. Therefore for a definitive diagnosis, the patient's clinical history ,symptomatalogy as well as serological data, should be considered. The results should be reported only after complying with above procedure.
- 2. Additional follow up testing using available clinical methods (along with repeat HBsAg rapid card test) is required, if the test is Non reactive with persisting clinical symptoms
- 3. False positive results may be observed in patients receiving mouse monoclonal antibodies, on heparin therapy, on biotin supplements for diagnosis or therapy, presence of heterophilic antibodies in serum or after HBV vaccination for transient period of time.
- 4. False negative reaction may be due to processing of sample collected early in the course of disease or presence of mutant forms of HBsAg.





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Patient NAME : Mrs Jeeri Deka

DOB/Age/Gender : 29 Y/Female Report STATUS : Final Report

Patient ID / UHID : 12002825/RCL11281130 Barcode NO : 25052936 Referred BY : Self Sample Type : Spot Urine

: Apr 10, 2025, 04:45 PM. Sample Collected : Apr 10, 2025, 07:04 AM Report Date

Test Description Value(s) Unit(s) Reference Range

Urine Routine and Microscopic Examination

Physical Examination			
Volume	20	mL	
visual			
Colour visual	Pale Yellow		Pale yellow
Transparency	Clear		Clear
visual	Clear		Clear
Deposit	Absent		Absent
visual			
Chemical Examination			
Reaction (pH) Double Indicator	6.0		5.5-8.0
Specific Gravity Ion Exchange.	1.020	0	1.010 - 1.030
Urine Glucose (sugar) Oxidase / Peroxidase	Negative		Negative
Urine Protein (Albumin) bromophenol blue	Negative		Negative
Urine Ketones (Acetone) Legals Test	Negative		Negative
Blood Peroxidase Hemoglobin	Negative		Negative
Leucocyte esterase amino acid aster	Negative		Negative
Bilirubin Urine Diazotized dicholoroaniline	Negative		Negative
Nitrite Griless Test	Negative		Negative
Urobilinogen Ehrlichs Test	Normal		Normal
Microscopic Examination			
Pus Cells (WBCs) WET MOUNT	3-4	/hpf	0-5
Epithelial Cells WET MOUNT	4-5	/hpf	0-4
Red blood Cells WET MOUNT	Absent	/hpf	Absent
Crystals WET MOUNT	Absent		Absent
Cast WET MOUNT	Absent		Absent
Yeast Cells WET MOUNT	Absent		Absent







Booking Centre:- Svasth Noida,.





Patient NAME : Mrs Jeeri Deka

DOB/Age/Gender : 29 Y/Female Report STATUS : Final Report

Patient ID / UHID : 12002825/RCL11281130 Barcode NO : 25052936
Referred BY : Self Sample Type : Spot Urine

Sample Collected : Apr 10, 2025, 07:04 AM Report Date : Apr 10, 2025, 04:45 PM.

Test Description	Value(s)	Unit(s)	Reference Range
Amorphous deposits WET MOUNT	Absent		Absent
Bacteria WET MOUNT	Absent		Absent
Protozoa WET MOUNT	Absent		Absent

Interpretation:

URINALYSIS- Routine urine analysis assists in screening and diagnosis of various metabolic, urological, kidney and liver disorders.

Protein: Elevated proteins can be an early sign of kidney disease. Urinary protein excretion can also be temporarily elevated by strenuous exercise, orthostatic proteinuria, dehydration, urinary tract infections and acute illness with fever

Glucose: Uncontrolled diabetes mellitus can lead to presence of glucose in urine. Other causes include pregnancy, hormonal disturbances, liver disease and certain medications.

Ketones: Uncontrolled diabetes mellitus can lead to presence of ketones in urine. Ketones can also be seen in starvation, frequent vomiting, pregnancy and strenuous exercise.

Blood: Occult blood can occur in urine as intact erythrocytes or haemoglobin, which can occur in various urological, nephrological and bleeding disorders.

Leukocytes: An increase in leukocytes is an indication of inflammation in urinary tract or kidneys. Most common cause is bacterial urinary tract infection.

Nitrite: Many bacteria give positive results when their number is high. Nitrite concentration during infection increases with length of time the urine specimen is retained in bladder prior to collection.

pH: The kidneys play an important role in maintaining acid base balance of the body. Conditions of the body producing acidosis/ alkalosis or ingestion of certain type of food can affect the pH of urine.

Specific gravity: Specific gravity gives an indication of how concentrated the urine is. Increased specific gravity is seen in conditions like dehydration, glycosuria and proteinuria while decreased specific gravity is seen in excessive fluid intake, renal failure and diabetes insipidus.

Bilirubin: In certain liver diseases such as biliary obstruction or hepatitis, bilirubin gets excreted in urine.

Urobilinogen: Positive results are seen in liver diseases like hepatitis and cirrhosis and in cases of haemolytic anaemia.

*** End Of Report ***





Booking Centre:- Svasth Noida,.



HOW WAS YOUR EXPERIENCE?

We value your feedback, please scan with your phone camera and rate overall experience.

How likely are you to recommend Redcliffe Labs to your family & friends



