Redcliffe labs

Healthy India Ki Trusted Lab

smart Health Report

An Insightful Health Analytics Report for Easier Understanding

Prepared For

Name

Gender

Patient ID

Age

Your Health Summary

Understand Your Health At A Glance
Your Personalized Health Summary is Now Available.

Your Health at a Glance – A Personalized Journey

Report Sections

1. **Body Summary**
   A visual snapshot of your overall health, simple and easy to understand
2. **Quick Health Highlights**
   Your health scores and a single view of all abnormal results for quick attention
3. **Lab Report Overview**
   Understand at a glance which tests are normal and which are abnormal
4. **Comparative Health Insights**
   See what has improved and what needs attention
5. **Personalized Health Advisory**
   Actionable insights and expert guidance tailored just for you
6. **Doctor's Reference Report**
   Complete lab results with interpretations to share with your healthcare provider

How to Read This Report

This comprehensive health report provides detailed insights into your test results. Each section offers different perspectives on your health status, from visual summaries to detailed analysis and personalized recommendations.

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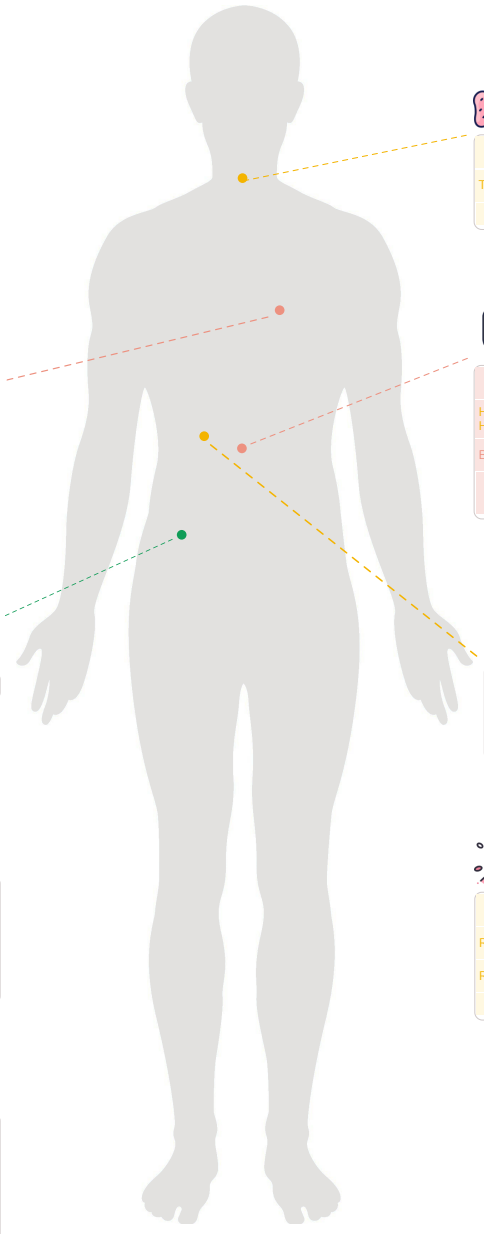
All In Range Borderline Out Of Range

Health Summary



THYROID PROFILE

Test Name	Result
TSH	5.1
Please Watchout	

CARDIAC PROFILE

Test Name	Result
Apo B / Apo A1 Ratio	1.06
Triglycerides	197
HDL Cholesterol	32.8
+ 4 tests Please Watchout	

DIABETES MONITORING

Test Name	Result
HbA1c (Glycosylated Haemoglobin)	6.4
Blood Sugar (Fasting)	128
Please Watchout	

KIDNEY PROFILE

Everything looks good

LIVER PROFILE

Test Name	Result
Albumin	5.1
Please Watchout	

ELECTROLYTES

Test Name	Result
Potassium	3.1
Chloride	93.8
Please Watchout	

ANEMIA STUDIES

Test Name	Result
RDW-CV	16.3
RDW-SD	52.5
Please Watchout	

VITAMIN PROFILE

Test Name	Result
Vitamin - B12	163
Vitamin D 25 - Hydroxy	18
Please Watchout	

Note: This section offers a quick snapshot of selected parameters. For all parameters and detailed analysis with clinical interpretation, please refer to the following pages

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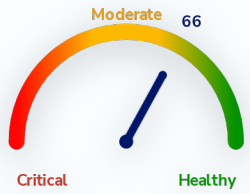
Quick Health Summary

Personal Insights - Health Score

66

Overall, most parameters are within normal ranges, indicating good general health. However, the Cardiac Health and Vitamins and Minerals profiles may affect your well-being, and considering gentle lifestyle adjustments could be beneficial. Incorporate a balanced diet rich in fruits, vegetables, and whole grains, and consider regular physical activities like walking or yoga. Routine check-ups and timely consultations with your healthcare provider are advisable to maintain optimal health. Remember, small changes can lead to meaningful improvements over time.



Note - Higher scores tentatively indicate better health status

Summary of Key Health Indicators

Total Parameters Tested	Borderline Results	Out Of Range Results
110	15	8

Health Status by Body System

Profile	Total	Borderline	Out of Range	Key Results
Cardiac Profile	13	4	3	Triglycerides **(197)** VLDL **(39.4)** HDL : LDL ratio **(0.33)**
Blood Disorder	17	2	2	Abs. Basophil Count **(0.01)** P-LCC **(31)** Abs. Monocyte Count **(0.19)**
Infectious Diseases	8	0	1	PCT **(0.1)**
Diabetes Monitoring	4	1	1	Blood Sugar (Fasting) **(128)** HbA1c (Glycosylated Haemoglobin) **(6.4)**
Vitamin Profile	2	1	1	Vitamin D (25-Hydroxy) **(18)** Vitamin B12 **(163)**
Inflammation	2	0	0	All In Range
Metabolic	1	0	0	All In Range

Profile	Total	Borderline	Out of Range	Key Results
Anemia Studies	9	2	0	RDW-CV (16.3) RDW-SD (52.5)
Liver Profile	15	1	0	Albumin (5.1)
Kidney Profile	11	0	0	All In Range
Electrolytes	4	2	0	Potassium (3.1) Chloride (93.8)
Pancreas	2	0	0	All In Range
Iron	4	1	0	UIBC (285)
Thyroid Profile	3	1	0	TSH (5.1)
Hormones	1	0	0	All In Range
Cancer Profile	1	0	0	All In Range
Muscle injury	1	0	0	All In Range
Allergy Panel	1	0	0	All In Range
Urinalysis	11	0	0	All In Range

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In Range | Borderline | Out Of Range | No color - Reference range not available

INFLAMMATION

Test Name	Result unit	Range
CRP (Quantitative)	0.4 mg/L	< 5
ESR - Erythrocyte Sedimentation Rate	08 mm/hr	< 12

CARDIAC PROFILE

Test Name	Result unit	Range
HIGHLY SENSITIVE C-REACTIVE PROTEIN (hs-CRP)	0.3 mg/L	< 1
Apolipoprotein A-1 (APO-A)	119 mg/dL	104 - 202
Apolipoprotein B (APO-B)	126 mg/dL	66 - 144
Apo B / Apo A1 Ratio	**1.06**	0.35 - 0.98
Total Cholesterol	172 mg/dL	< 200
Triglycerides	**197** mg/dL	< 150
HDL Cholesterol	**32.8** mg/dL	40 - 80
Non HDL Cholesterol	**139.2** mg/dL	< 130
LDL Cholesterol	99.8 mg/dL	30 - 100
V.L.D.L Cholesterol	**39.4** mg/dL	< 30
Chol/HDL Ratio	**5.24** Ratio	3.5 - 5
HDL/ LDL Ratio	**0.33** Ratio	0.5 - 3
LDL/HDL Ratio	3.04 Ratio	

METABOLIC

Test Name	Result unit	Range
RHEUMATOID FACTOR, Quantitative	4.8 IU/mL	< 30

INFECTIOUS DISEASES

Test Name	Result unit	Range
HEPATITIS C ANTIBODY (Anti-HCV)	NON REACTIVE	
HEPATITIS B SURFACE ANTIGEN (HBsAg)	NON REACTIVE S/CO	
PCT	**0.1** %	0.17 - 0.32
Deposit	Absent	
Leucocyte esterase	Negative	
Pus Cells (WBCs)	2-3 /hpf	
Yeast Cells	Absent	
Protozoa	Absent	

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BLOOD DISORDER

Test Name	Result unit	Range
Hemoglobin	14.9 g/dL	13 - 17
TLC	4.8 10^3/µl	4 - 10
Neutrophils	63.7 %	40 - 80
Lymphocytes	26.5 %	20 - 40
Monocytes	3.9 %	2 - 10
Eosinophils	5.7 %	1 - 6
Basophils	0.2 %	< 2
Neutrophils.	3.06 10^3/µl	2 - 7
Lymphocytes.	1.27 10^3/µl	1 - 3
Monocytes.	**0.19** 10^3/µl	0.2 - 1
Eosinophils.	0.27 10^3/µl	0.02 - 0.5
Basophils.	**0.01** 10^3/µl	0.02 - 0.5
Platelet Count	175 10^3/µl	150 - 410
Mean Platelet Volume (MPV)	**12.5** fL	9.3 - 12.1
PDW	23.1 fL	8.3 - 25
P-LCR	44.8 %	18 - 50
P-LCC	**31** 10^9/L	44 - 140

ANEMIA STUDIES

Test Name	Result unit	Range
RBC Count	5.2 10^6/µl	4.5 - 5.5
PCV	47 %	40 - 50
MCV	90.4 fl	83 - 101
MCH	28.7 pg	27 - 32
MCHC	31.8 g/dL	31.5 - 34.5
RDW (CV)	**16.3** %	11.6 - 14
RDW-SD	**52.5** fl	35.1 - 43.9
Mentzer Index	17.38 %	
Ferritin	76.7 ng/mL	20 - 250

DIABETES MONITORING

Test Name	Result unit	Range
Glycosylated Hemoglobin (HbA1c)	**6.4** %	< 5.6
Estimated Average Glucose	136.98 mg/dL	
Glucose Fasting	**128** mg/dL	70 - 100
Urine Glucose (sugar)	Positive(+)	

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LIVER PROFILE

Test Name	Result unit	Range
Bilirubin Total	0.761 mg/dL	0.2 - 1.2
Bilirubin Direct	0.302 mg/dL	< 0.5
Bilirubin Indirect	0.46 mg/dL	0.1 - 1
SGOT/AST	30.3 U/L	5 - 34
SGPT/ALT	31 U/L	< 55
SGOT/SGPT Ratio	0.98 %	
Alkaline Phosphatase	92.7 U/L	40 - 150
Total Protein	7.6 g/dL	6.4 - 8.3
Albumin	**5.1** gm/dL	3.8 - 5
Globulin	2.5 g/dL	2.3 - 3.5
Albumin :Globulin Ratio	2.04	1 - 2.1
Gamma Glutamyl Transferase (GGT)	28.1 U/L	12 - 64
Calcium Serum	9.8 mg/dL	8.4 - 10.2
Bilirubin Urine	Negative	
Urobilinogen	Normal	

KIDNEY PROFILE

Test Name	Result unit	Range
Blood Urea	31.7 mg/dL	18 - 55
Bun	14.81 mg/dL	8.4 - 25.7
Creatinine	1 mg/dL	0.72 - 1.25
eGFR (CKD-EPI)	90.54 ml/min/1.73 sq m	
Bun/Creatinine Ratio	14.81	12 - 20
Urea / Creatinine Ratio	31.7	25.68 - 42.8
Uric Acid	5.1 mg/dL	3.5 - 7.2
Urine Protein (Albumin)	Negative	
Blood	Negative	
Crystals	Absent	
Cast	Absent	

ELECTROLYTE PROFILE

Test Name	Result unit	Range
Phosphorus	4.3 mg/dL	2.3 - 4.7
Sodium	136.6 mmol/L	136 - 145
Potassium	**3.1** mmol/L	3.5 - 5.1
Chloride	**93.8** mmol/L	98 - 107

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PANCREAS

Test Name	Result unit	Range
Lipase	58.8 U/L	< 67
Amylase	72.4 U/L	25 - 125

IRON

Test Name	Result unit	Range
Iron	98.2 µg/dL	65 - 175
TIBC,(Total Iron Binding Capacity)	383.2 µg/dL	250 - 450
UIBC	**285** µg/dL	69 - 240
Transferrin Saturation	25.63 %	14 - 50

VITAMIN PROFILE

Test Name	Result unit	Range
Vitamin - B12	**163** pg/mL	187 - 883
Vitamin D 25 - Hydroxy	**18** ng/mL	30 - 100

THYROID PROFILE

Test Name	Result unit	Range
Triiodothyronine (T3)	81.7 ng/dL	35 - 193
Total Thyroxine (T4)	6.08 µg/dL	4.87 - 11.2
Thyroid Stimulating Hormone (Ultrasensitive)	**5.1** µIU/mL	0.35 - 4.94

HORMONES

Test Name	Result unit	Range
Testosterone Total	496 ng/dL	193 - 740

CANCER PROFILE

Test Name	Result unit	Range
Prostate Specific Antigen-Total (PSA-Total)	1.2 ng/mL	

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In Range | Borderline | Out Of Range | No color - Reference range not available

MUSCLE INJURY

Test Name	Result unit	Range
Creatine Kinase-CPK	87 U/L	30 - 200

ALLERGY PANEL

Test Name	Result unit	Range
IMMUNOGLOBULIN IgE TOTAL SERUM	41.2 IU/mL	< 100

URINALYSIS

Test Name	Result unit	Range
Volume	15 mL	
Colour	Pale yellow	
Transparency	Clear	
Reaction (pH)	6.0	4.5 - 8
Specific Gravity	1.015	1.01 - 1.03
Urine Ketones (Acetone)	Negative	
Nitrite	Negative	
Epithelial Cells	1-2 /hpf	
Red blood Cells	Absent /hpf	
Amorphous deposits	Absent	
Bacteria	Absent	

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Comparative Health Summary

● In Range ● Borderline ● Out Of Range

Personal Health Score Change

Your health score is **66/100** (05-03-2026)

Summary of Key Improvements / Declines	Outcome
Total parameters improved	4 of 67 parameters tested earlier
• MCHC • TLC • Eosinophils • ESR - Erythrocyte Sedimentation Rate	
New Out of range parameters detected	8 new issues
• Basophils. • Mean Platelet Volume (MPV) • Albumin • Potassium • Chloride • Chol/HDL Ratio • UIBC • Thyroid Stimulating Hormone (Ultrasensitive)	

Parameter-Wise Comparison

Parameter	Current 05-03-2026	Previous	Range	Value Change	Trend
MCHC	● 31.8	● 30.9 11-06-2023	31.5-34.5 g/dL	+0.9	Improved
RDW (CV)	● 16.3	● 17 11-06-2023	11.6-14.0 %	-0.7	Still out of range
RDW-SD	● 52.5	● 56.4 11-06-2023	35.1-43.9 fl	-3.9	Still out of range
TLC	● 4.8	● 3.6 11-06-2023	4-10 10^3/µl	+1.2	Improved
Eosinophils	● 5.7	● 6.5 11-06-2023	1-6 %	-0.8	Improved
Monocytes.	● 0.19	● 0.13 11-06-2023	0.2-1.0 10^3/µl	+0.1	Still out of range
Basophils.	● 0.01	● 0.02 11-06-2023	0.02-0.5 10^3/µl	-0	Need Attention
Mean Platelet Volume (MPV)	● 12.5	● 11.8 11-06-2023	9.3-12.1 fL	+0.7	Need Attention

Parameter	Current 05-03-2026	Previous	Range	Value Change	Trend
PCT	0.1	0.1 11-06-2023	0.17-0.32 %	0	Still out of range
P-LCC	31	22 11-06-2023	44-140 10^9/L	+9	Still out of range
ESR - Erythrocyte Sedimentation Rate	08	18 11-06-2023	0-12 mm/hr	-10	Improved
Glycosylated Hemoglobin (HbA1c)	6.4	6.4 11-06-2023	0-5.6 %	0	Still out of range
Glucose Fasting	128	122 11-06-2023	70-100 mg/dL	+6	Still out of range
Albumin	5.1	4.9 11-06-2023	3.8-5 gm/dL	+0.2	Need Attention
Potassium	3.1	3.6 11-06-2023	3.5-5.1 mmol/L	-0.5	Need Attention
Chloride	93.8	100.8 11-06-2023	98-107 mmol/L	-7	Need Attention
Triglycerides	197	202 11-06-2023	0-150 mg/dL	-5	Still out of range
HDL Cholesterol	32.8	35.4 11-06-2023	40-80 mg/dL	-2.6	Still out of range
Non HDL Cholesterol	139.2	134.6 11-06-2023	0-130 mg/dL	+4.6	Still out of range
V.L.D.L Cholesterol	39.4	40.4 11-06-2023	0-30 mg/dL	-1	Still out of range
Chol/HDL Ratio	5.24	4.8 11-06-2023	3.5-5 Ratio	+0.4	Need Attention
HDL/ LDL Ratio	0.33	0.38 11-06-2023	0.5-3.0 Ratio	-0	Still out of range
UIBC	285	234 11-06-2023	69-240 µg/dL	+51	Need Attention
Thyroid Stimulating Hormone (Ultrasensitive)	5.1	3.89 11-06-2023	0.35-4.94 µIU/mL	+1.2	Need Attention

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Health Advisory

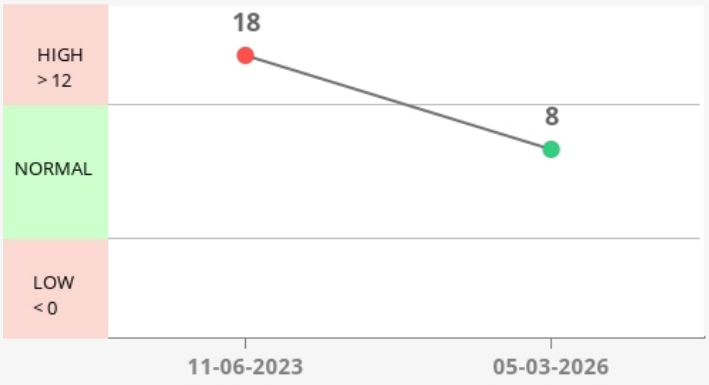
In Range Borderline (BL) Out Of Range

Inflammation

Inflammation is the body's immune system's response to an injury, surgery, or irritation. This natural defense process acts by removing injurious stimuli and initiating the healing process.Inflammation can be chronic (such as arthritis) or acute (like in case of trauma).

ESR - Erythrocyte Sedimentation Rate: 08 mm/hr

IN RANGE

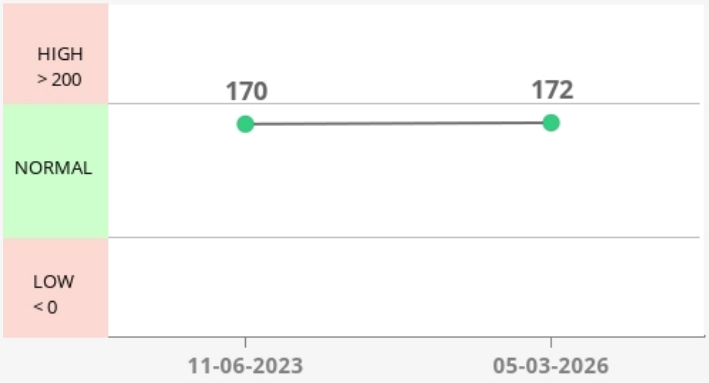


Cardiac Profile

Most people believe they are safe from heart diseases, but in reality, heart diseases are the leading cause of death in the world. There are many different forms of heart disease. Narrowing or blockage of the coronary arteries is the most common cause of heart disease, which are the vessels that supply blood to the heart. This is called coronary artery disease and it occurs slowly over time. It is the main cause of heart attacks.

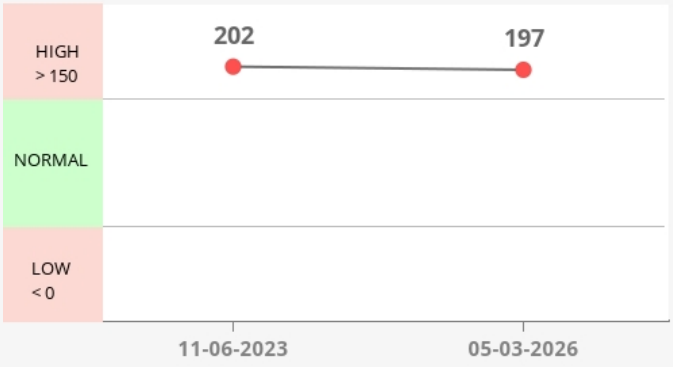
Total Cholesterol: 172 mg/dL

IN RANGE



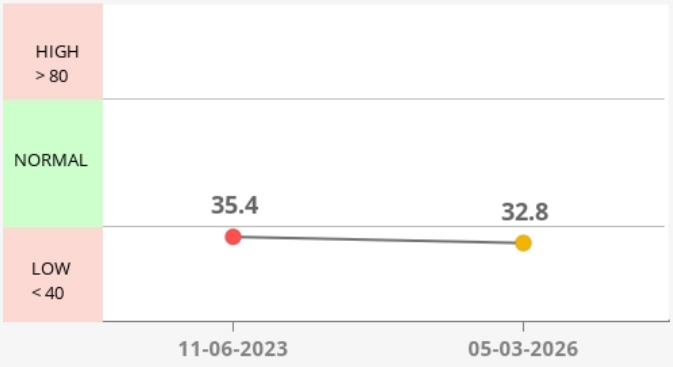
Triglycerides: 197 mg/dL

OUT OF RANGE



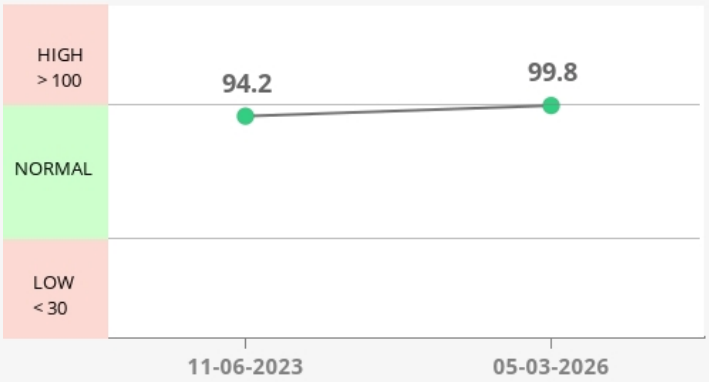
HDL Cholesterol: 32.8 mg/dL

BORDERLINE



LDL Cholesterol: 99.8 mg/dL

IN RANGE

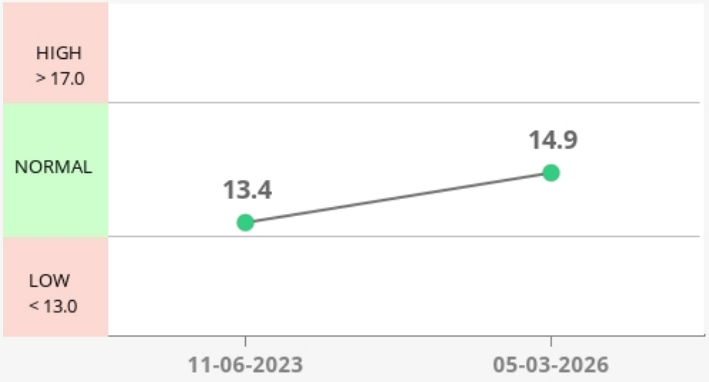


Blood Disorder

Blood disorders affect one or more components of blood such as red blood cells, white blood cells, platelets, or plasma. These tests help in diagnosing conditions like anemia, clotting disorders, infections, and other hematological abnormalities.

Hemoglobin: 14.9 g/dL

● IN RANGE

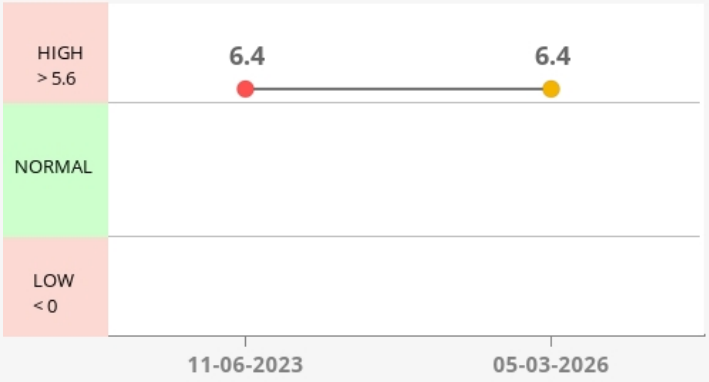


Diabetes

This panel is used to check how much glucose/sugar there is in your blood. Too much blood glucose might indicate diabetes.

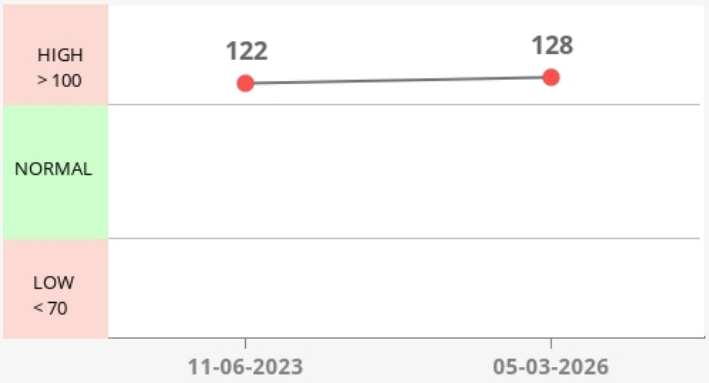
Glycosylated Hemoglobin (HbA1c): 6.4 %

● BORDERLINE



Glucose Fasting: 128 mg/dL

OUT OF RANGE

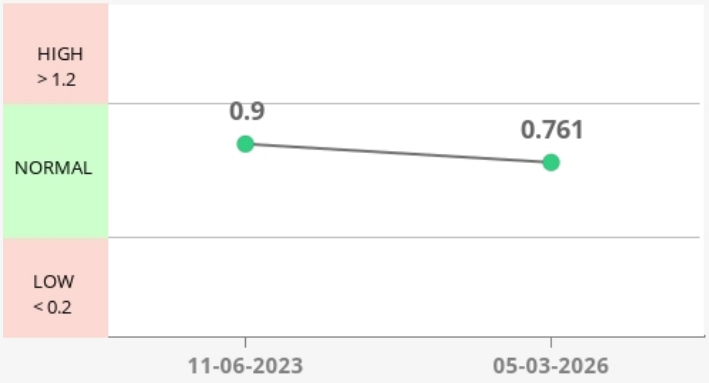


Liver Profile

One of the main functions of your liver is to make proteins that are secreted in your blood. It also makes enzymes which convert food into energy, and processes old muscles and cells. When your liver is damaged, enzymes leak into your blood and appear in the blood test

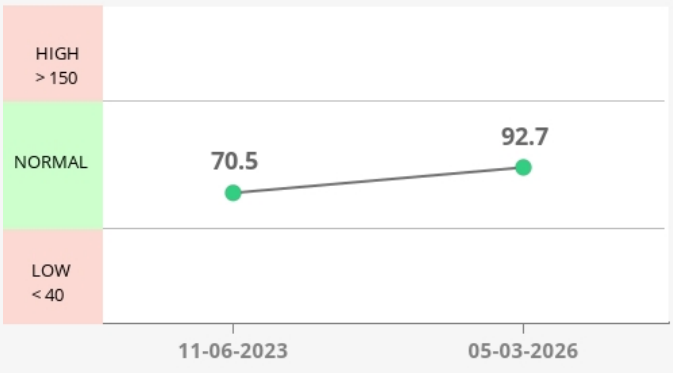
Bilirubin Total: 0.761 mg/dL

IN RANGE



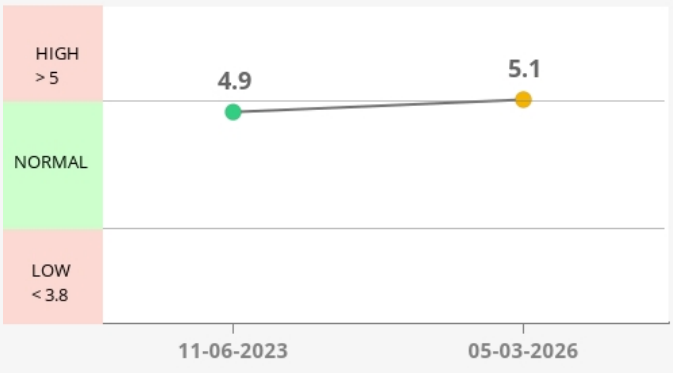
Alkaline Phosphatase: 92.7 U/L

IN RANGE



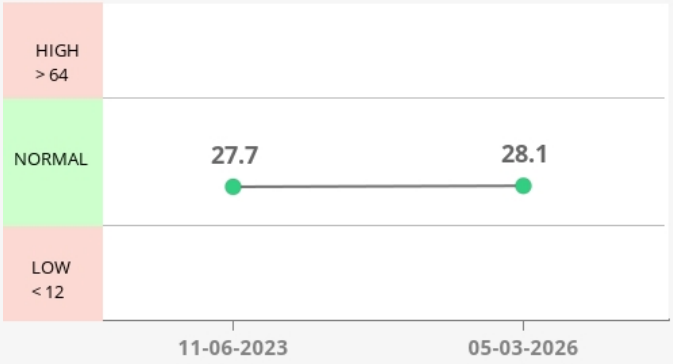
Albumin: 5.1 gm/dL

BORDERLINE



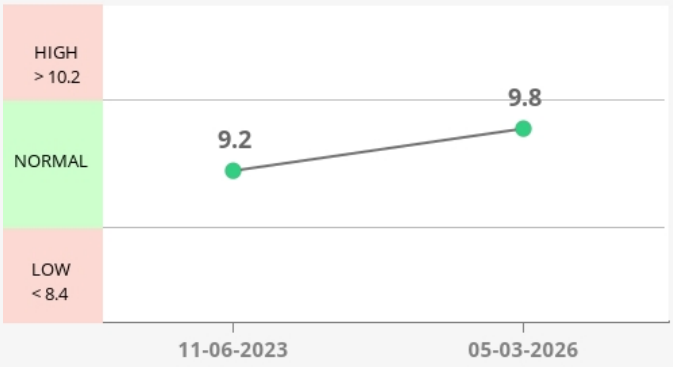
Gamma Glutamyl Transferase (GGT): 28.1 U/L

IN RANGE



Calcium Serum: 9.8 mg/dL

IN RANGE

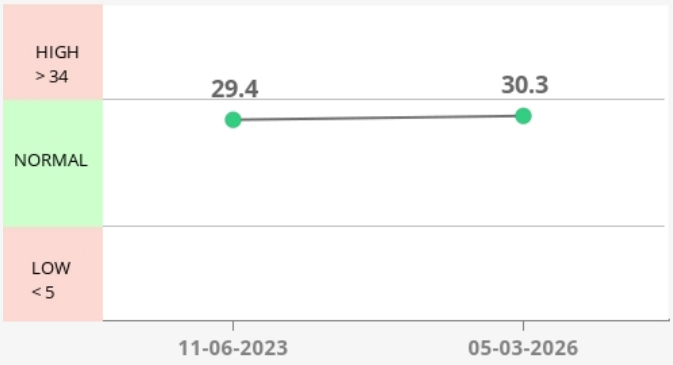


Enzymes

Enzymes found in your liver are responsible for various processes that maintain body functions. These enzymes are leaked into your blood when your liver suffers dysfunction.

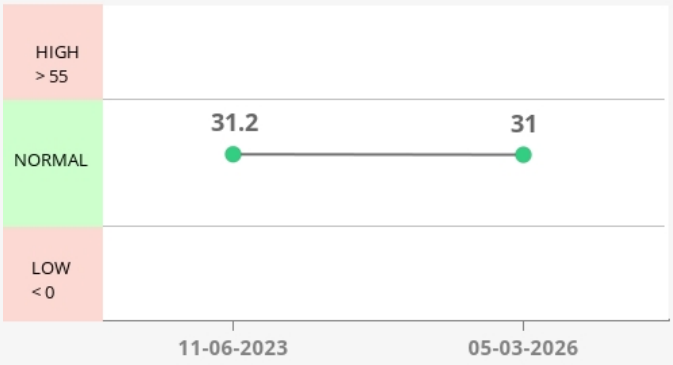
SGOT/AST: 30.3 U/L

IN RANGE



SGPT/ALT: 31 U/L

IN RANGE

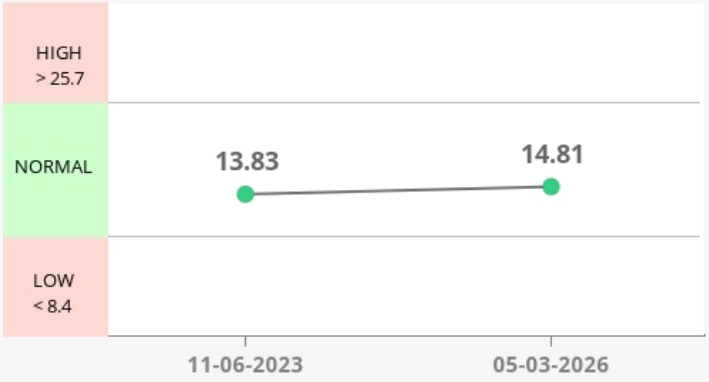


Kidney Profile

This panel is used to check healthy functioning of your kidneys. Kidneys filter blood in your body to remove waste products - these waste products are produced when breakdown of proteins (present in food, muscles and other cells) occurs in the body to generate energy

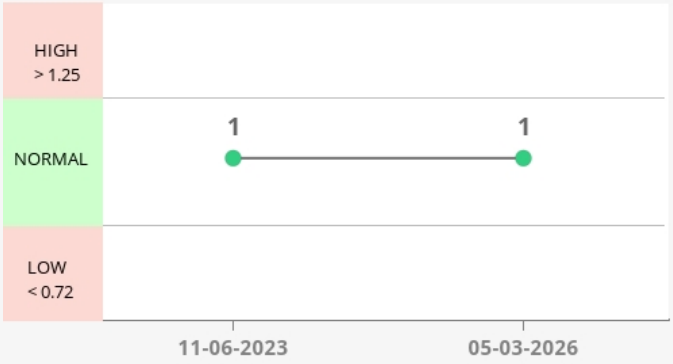
Bun: 14.81 mg/dL

● IN RANGE



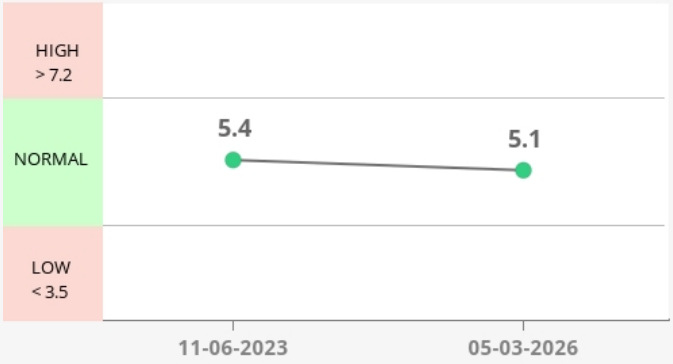
Creatinine: 1 mg/dL

● IN RANGE



Uric Acid: 5.1 mg/dL

● IN RANGE

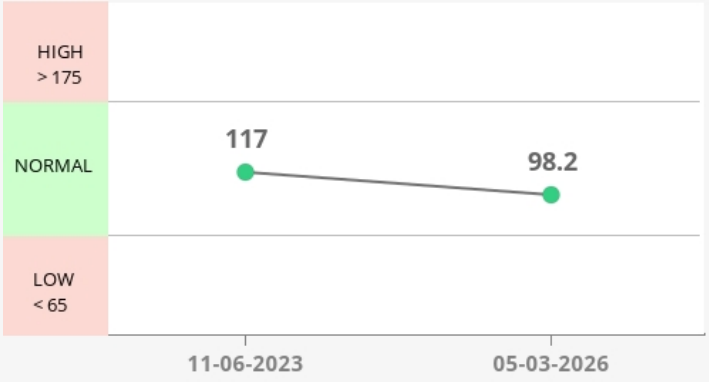


Iron

Iron is an essential mineral that helps in the formation of hemoglobin, which carries oxygen in the blood. Iron tests are performed to evaluate iron deficiency, anemia, and conditions related to iron overload.

Iron: 98.2 µg/dL

● IN RANGE

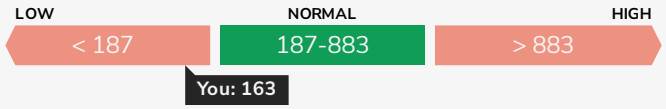


Vitamins Profile

Vitamins are considered essential nutrients because they perform hundreds of roles in your body. They help maintain bones, heal wounds, and strengthen your immune system. They also convert food into energy, and repair cellular damage

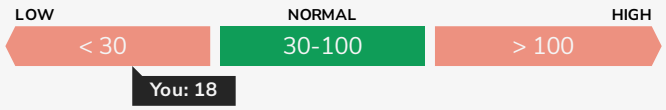
Vitamin - B12: 163 pg/mL

● BORDERLINE



Vitamin D 25 - Hydroxy: 18 ng/mL

● OUT OF RANGE

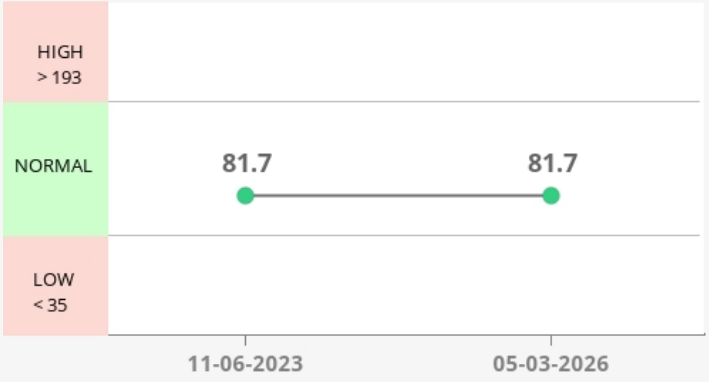


Thyroid

This panel is used to check the imbalance in your thyroid gland. A healthy thyroid gland is very important for metabolism, controlling body temperature, regulation of mood, muscle strength and regulation of body weight

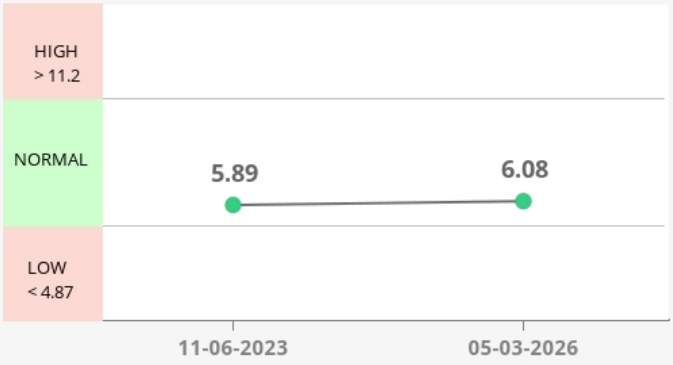
Triiodothyronine (T3): 81.7 ng/dL

IN RANGE



Total Thyroxine (T4): 6.08 µg/dL

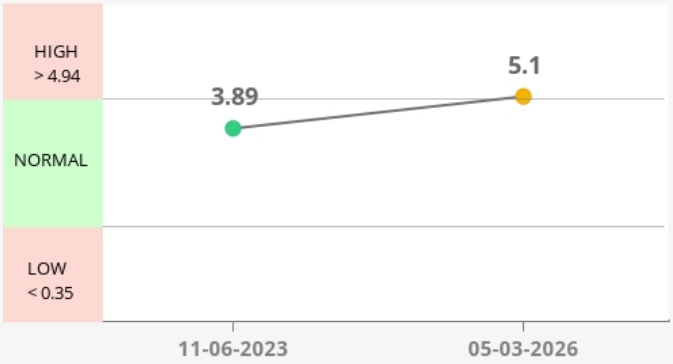
IN RANGE



Thyroid Stimulating Hormone (Ultrasensitive): 5.1

µlU/mL

BORDERLINE



Cancer Profile

Cancer cells grow and divide in an uncontrolled manner forming a tumor (lump), invading normal tissues and organs and eventually spreading throughout the body.Cancer cells kills by invading important organs and interferes with the body functions that are necessary to live.

Prostate Specific Antigen-Total (PSA-Total): 1.2 ng/mL

LABORATORY REPORT

Redcliffe labs

Patient NAME	
DOB/Age/Gender	Report STATUS
Patient ID / UHID	Barcode NO
Referred BY	Sample Type
Sample Collected	Report Date

Master Pro Full Body Checkup - Male

Complete Blood Count (CBC)

Test Description	Value(s)	Unit(s)	Reference Range
RBC Parameters			
Hemoglobin *Cyanide Free Spectrophotometry*	14.9	g/dL	13.0 - 17.0
RBC Count *Electrical impedance*	5.2	10^6/µl	4.5 - 5.5
PCV *Calculated*	47	%	40 - 50
MCV *Calculated*	90.4	fl	83 - 101
MCH *Calculated*	28.7	pg	27 - 32
MCHC *Calculated*	31.8	g/dL	31.5 - 34.5
RDW (CV) *Calculated*	**16.3 H***	%	11.6 - 14.0
RDW-SD *Calculated*	**52.5 H***	fl	35.1 - 43.9
WBC Parameters			
TLC *Electrical impedance and microscopy*	4.8	10^3/µl	4 - 10
Differential Leucocyte Count			
Neutrophils *Flow cytometry*	63.7	%	40-80
Lymphocytes *Flow cytometry*	26.5	%	20-40
Monocytes *Flow cytometry*	3.9	%	2-10
Eosinophils *Flow cytometry*	5.7	%	1-6
Basophils *Flow cytometry*	0.2	%	<2
Absolute Leukocyte Counts ***Calculated***			
Neutrophils.	3.06	10^3/µl	2 - 7
Lymphocytes.	1.27	10^3/µl	1 - 3
Monocytes.	**0.19 L***	10^3/µl	0.2 - 1.0
Eosinophils.	0.27	10^3/µl	0.02 - 0.5
Basophils.	**0.01 L***	10^3/µl	0.02 - 0.5
Platelet Parameters			
Platelet Count *Electrical impedance and microscopy*	175	10^3/µl	150 - 410

Note :- (H* - High , L* - Low ,CL* - Critical Low,CH* - Critical High)

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Patient NAME	
DOB/Age/Gender	Report STATUS
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Sample Collected	Report Date

Test Description	Value(s)	Unit(s)	Reference Range
Mean Platelet Volume (MPV) *Calculated*	**12.5 H***	fL	9.3 - 12.1
PCT *Calculated*	**0.1 L***	%	0.17 - 0.32
PDW *Calculated*	23.1	fL	8.3 - 25.0
P-LCR *Calculated*	44.8	%	18 - 50
P-LCC *Calculated*	**31 L***	10^9/L	44 - 140
Mentzer Index *Calculated*	17.38	%	> 13

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.

Note :- (H* - High , L* - Low ,CL* - Critical Low,CH* - Critical High)

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Patient NAME			
DOB/Age/Gender		Report STATUS :	
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Referred BY		Sample Type :	
Sample Collected		Report Date :	

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

Erythrocyte Sedimentation Rate (ESR)

ESR - Erythrocyte Sedimentation Rate *MODIFIED WESTERGREN*	08	mm/hr	0 - 12

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

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Patient NAME	:		
DOB/Age/Gender	:	Report STATUS	:
Patient ID / UHID	:	Barcode NO	:
Referred BY	:	Sample Type	:
Sample Collected	:	Report Date	:

Test Description	Value(s)	Unit(s)	Reference Range
HbA1C (Glycosylated Haemoglobin)			
Glycosylated Hemoglobin (HbA1c) *HPLC*	**6.4 H***	%	< 5.7
Estimated Average Glucose	136.98	mg/dL	Refer Table Below

Please correlate clinically.

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

Note :- (H* - High , L* - Low ,CL* - Critical Low,CH* - Critical High)

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

Glucose Fasting

Glucose Fasting *Hexokinase*	**128 H***	mg/dL	70 - 100

Please correlate clinically.

Interpretation:

Status	Fasting plasma glucose in mg/dL
Normal	70 - 100
Impaired fasting glucose	101 - 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.

Note :- (H* - High , L* - Low ,CL* - Critical Low,CH* - Critical High)

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Patient NAME	:		
DOB/Age/Gender	:	Report STATUS	
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Referred BY	:	Sample Type	
Sample Collected	:	Report Date	

Test Description	Value(s)	Unit(s)	Reference Range
Liver Function Test (LFT)			
Bilirubin Total *Diazo*	0.761	mg/dL	0.2 - 1.2
Bilirubin Direct *Diazo*	0.302	mg/dL	0.0 - 0.5
Bilirubin Indirect *Calculation (T Bil - D Bil)*	0.46	mg/dL	0.1 - 1.0
SGOT/AST *IFCC with P5P*	30.3	U/L	5 - 34
SGPT/ALT *IFCC with P5P*	31	U/L	0 to 55
SGOT/SGPT Ratio	0.98	-	-
Alkaline Phosphatase *p-Nitrophenyl Phosphate*	92.7	U/L	40 - 150
Total Protein *Biuret*	7.6	g/dL	6.4 - 8.3
Albumin *Bromo cresol Green*	**5.1 H***	gm/dL	3.8 - 5.0
Globulin *Calculation (T.P - Albumin)*	2.5	g/dL	2.3 - 3.5
Albumin :Globulin Ratio *Calculation (Albumin/Globulin)*	2.04	-	1.0 - 2.1
Gamma Glutamyl Transferase (GGT) *L-Gamma glutamyl-3-Carboxy-4- Nitroanilide*	28.1	U/L	12 - 64

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.

Note :- (H* - High , L* - Low ,CL* - Critical Low,CH* - Critical High)

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Referred BY	:	Sample Type	:
Sample Collected	:	Report Date	:

Kidney Function Test (KFT)

Test Description	Value(s)	Unit(s)	Reference Range
Blood Urea *Urease*	31.7	mg/dL	18 - 55
Bun *Urease*	14.81	mg/dL	8.4 - 25.7
Creatinine *Creatinase and sarcosine oxidase*	1	mg/dL	0.72 - 1.25
eGFR (CKD-EPI)	90.54	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*	14.81		12 - 20
Urea / Creatinine Ratio *Calculated*	31.7		25.68- 42.8
Uric Acid *Uricase*	5.1	mg/dL	3.5 - 7.2
Calcium Serum *NM-BAPTA*	9.8	mg/dL	8.4 - 10.2
Phosphorus *Phosphomolybdate*	4.3	mg/dL	2.3 - 4.7
Sodium *Ion selective electrode Indirect*	136.6	mmol/L	136 - 145
Potassium *Ion selective electrode Indirect*	**3.1 L***	mmol/L	3.5 - 5.1
Chloride *Ion selective electrode Indirect*	**93.8 L***	mmol/L	98 - 107

Please correlate clinically.

Interpretation:
Kidney function tests is a collective term for a variety of individual tests and procedures that can be done to evaluate how well the kidneys are functioning. Many conditions can affect the ability of the kidneys to carry out their vital functions. Some lead to a rapid (acute) decline in kidney function others lead to a gradual (chronic) decline in function. Both result in a buildup of toxic waste substances 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. 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."**

Note :- (H* - High , L* - Low ,CL* - Critical Low,CH* - Critical High)

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Patient NAME	
DOB/Age/Gender	Report STATUS
Patient ID / UHID	Barcode NO
Referred BY	Sample Type
Sample Collected	Report Date

Test Description	Value(s)	Unit(s)	Reference Range
Lipid Profile			
Total Cholesterol *CHOD-PAP*	172	mg/dL	<200
Triglycerides *GPO-POD*	**197 H***	mg/dL	<150
HDL Cholesterol *CHER and CHOD*	**32.8 L***	mg/dL	>40
Non HDL Cholesterol *Calculated*	**139.2 H***	mg/dL	<130
LDL Cholesterol *Calculated*	99.8	mg/dL	<100
V.L.D.L Cholesterol *Calculated*	**39.4 H***	mg/dL	< 30
Chol/HDL Ratio *Calculated*	**5.24 H***	Ratio	3.5 - 5.0
HDL/ LDL Ratio *Calculated*	**0.33 L***	Ratio	0.5 - 3.0
LDL/HDL Ratio *Calculated*	3.04	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)	Total Cholesterol (mg/dL)	Triglyceride (mg/dL)	LDL Cholesterol (mg/dL)	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 mg/dl or poly vascular disease
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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Test Description	Value(s)	Unit(s)	Reference Range

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

Major ASCVD (Atherosclerotic cardiovascular disease) Risk Factors

1. Age >/=45 years in Males & >/= 55 years in Females	3. Current Cigarette smoking or tobacco 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		Consider Drug Therapy	
	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)	<80 (Optional goal <OR = 60)	>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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Test Description	Value(s)	Unit(s)	Reference Range

Lipase

Lipase *1,2-O-Dilauryl-Rac-Glycero-3-Glutaric Acid-(6 Meth*	58.8	U/L	<67

Interpretation:
Pancreas is the major and primary source of serum lipase though lipases are also present in liver, stomach, intestine, WBC, fat cells and milk. In acute pancreatitis, serum lipase becomes elevated at the same time as amylase and remains high for 7-10 days. Increased
lipase activity rarely lasts longer than 14 days. Prolonged increase suggests poor prognosis or presence of a cyst. The combined use of serum lipase and serum amylase is effective in ruling out acute pancreatitis.

Increased levels
Acute & Chronic pancreatitis
Obstruction of pancreatic duct
Non pancreatic conditions like renal diseases, acute cholecystitis, intestinal obstruction, duodenal ulcer, alcoholism, diabetic ketoacidosis and following endoscopic retrograde cholangiopancreatography

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Test Description	Value(s)	Unit(s)	Reference Range
Amylase			
Amylase *2- choloro-4-nitrophenol-a-maltoheptaoside*	72.4	U/L	25 - 125

Interpretation:

1. Amylase levels are significantly increased in patients with acute pancreatitis, pancreatic duct obstruction, carcinoma pancreas, ovaries, or lungs, cholecystitis, macroamylasemia, renal disease, pancreatic pseudocyst, procedures like Endoscopic retrograde cholangiopancreatography and acute alcohol poisoning.
2. In acute pancreatitis, elevated amylase levels usually parallel lipase concentrations, although lipase levels may take a bit longer to rise than blood amylase levels and will remain elevated longer.
3. Amylase levels are raised in aspirin, diuretics, oral contraceptives, corticosteroids, indomethacin, ethyl alcohol and opiate intake

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Sample Collected	Report Date :

Test Description	Value(s)	Unit(s)	Reference Range
Iron Studies			
Iron *FerroZine*	98.2	µg/dL	65 - 175
TIBC,(Total Iron Binding Capacity) *Calculated*	383.2	µg/dL	250 - 450
UIBC *Ferrozine*	**285 H***	µg/dL	69 - 240
Transferrin Saturation *Method :Derived from IRON and TIBC values*	25.63	%	-

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.

Note :- (H* - High , L* - Low ,CL* - Critical Low,CH* - Critical High)

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Patient NAME			
DOB/Age/Gender		Report STATUS	:
Patient ID / UHID		Barcode NO	:
Referred BY		Sample Type	:
Sample Collected		Report Date	:

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

C-Reactive Protein (CRP), Quantitative

CRP (Quantitative) *Immunoturbidimetry*	0.4	mg/L	up to 5

Interpretation:
Increased CRP level:
1. A high or increasing amount of CRP in the blood suggests the presence of inflammation but will not identify its location or the cause.
2. Suspected bacterial infection—a high CRP level can provide indication that patient has an infection.
3. Chronic inflammatory disease—high levels of CRP suggest a flare-up if you have a chronic inflammatory disease or that treatment has not been effective.

If the CRP level is initially elevated and drops, it means that the inflammation or infection is subsiding and/or responding to treatment.

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Patient NAME	
DOB/Age/Gender	Report STATUS
Patient ID / UHID	Barcode NO
Referred BY	Sample Type
Sample Collected	Report Date

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

High Sensitivity C-Reactive Protein (Hs-CRP)

HIGHLY SENSITIVE C-REACTIVE PROTEIN (hs-CRP) *immunoturbidimetric*	0.3	mg/L	< 1.00

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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Patient NAME	:		
DOB/Age/Gender	:	Report STATUS	
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Referred BY	:	Sample Type	
Sample Collected	:	Report Date	

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

Rheumatoid Factor (RF), Quantitative

RHEUMATOID FACTOR, Quantitative *Immunoturbidimetry*	4.8	IU/mL	Negative <30 Weakly positive 30 to 50 Positive >50

Interpretation:
Approximately 85% of patients with Rheumatoid arthritis have detectable RA. It may also be seen in other medical conditions like Sjogren's syndrome and SLE.

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Referred BY	:	Sample Type	:
Sample Collected	:	Report Date	:

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

Ferritin

Ferritin *ECLIA*	76.7	ng/mL	20–250

Interpretation:

1.Increased ferritin is seen in iron overload as in multiple blood transfusions, hemochromatosis and anemia of chronic disorders.

2. Decreased ferritin levels are seen in iron deficiency anemia, early stage before iron deficiency manifests as anemia.

3. Increased ferritin is also seen in liver disease,alcoholism, inflammatory conditions, leukemia, Hodgkin's disease and some malignancies.

4. Levels of ferritin are used for monitoring of iron levels during pregnancy, dialysis and during iron therapy

Rima Rudra

Dr. Rima Rudra
WBMC(75259)
MBBS, MD (Biochemistry)
Consultant Biochemistry

Patient NAME	
DOB/Age/Gender	Report STATUS
Patient ID / UHID	Barcode NO
Referred BY	Sample Type
Sample Collected	Report Date

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

Vitamin B12 / Cyanocobalamin

Vitamin - B12 *ECLIA*	**163 L***	pg/mL	187 - 883

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."

Note :- (H* - High , L* - Low ,CL* - Critical Low,CH* - Critical High)

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

Vitamin D 25 Hydroxy

Vitamin D 25 - Hydroxy *ECLIA*	**18 L***	ng/mL	Deficiency : <30 ng/mL

Please correlate clinically.

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.

Note :- (H* - High , L* - Low ,CL* - Critical Low,CH* - Critical High)

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Patient NAME	
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Referred BY	Sample Type
Sample Collected	Report Date

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

Thyroid Profile Total

Triiodothyronine (T3) *ECLIA*	81.7	ng/dL	35 - 193
Total Thyroxine (T4) *ECLIA*	6.08	µg/dL	4.87 - 11.2
Thyroid Stimulating Hormone (Ultrasensitive) *ECLIA*	**5.1 H***	µlU/mL	0.35 - 4.94

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.
2. Secondary/Tertiary Hypothyroidism: Low TSH 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)

Note :- (H* - High , L* - Low ,CL* - Critical Low,CH* - Critical High)

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Patient NAME	
DOB/Age/Gender	Report STATUS
Patient ID / UHID	Barcode NO
Referred BY	Sample Type
Sample Collected	Report Date

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

Testosterone Total

Testosterone Total *ECLIA*	496	ng/dL	193 - 740

Interpretation:

Age in Years	Reference Ranges ng/dL
Males 20-49	249 - 836
Males ≥ 50 years	193 - 740
Females 20-49	8.4 - 48.1
Females ≥ 50	2.9 - 40.8

Reference values for Males (7-18 years) characterized by Tanner Stage

Tanner Stage	5-95th percentiles (ng/dL)
1	< 2.5
2	< 2.5 - 432
3	64.9 - 778
4	180 - 763
5	188 - 882

Reference values for females (8-18 years) characterized by Tanner Stage

Tanner Stage	5-95th percentiles (ng/dL)
1	<2.5 - 6.1
2	<2.5 - 10.4
3	<2.5 - 23.7
4	<2.5 - 26.8
5	4.6 - 38.3

Note

· All applications that require measurement of very low level of testosterone (eg hypogonadal men, children, virilization or intersex disorders in women etc) recommended test is Testosterone total, Ultrasensitive

· LC-MS/MS is the gold standard for steroid hormone assays due to increased sensitivity & specificity as compared to immunoassays

Clinical Use

· Assessment of testicular function in males

Increased levels

· Precocious puberty (Males)
· Androgen resistance
· Testotoxicosis
· Congenital Adrenal Hyperplasia

Decreased levels

· Delayed puberty (Males)
· Gonadotropin deficiency

Rima Rudra

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Consultant Biochemistry

Patient NAME	:		
DOB/Age/Gender	:	Report STATUS	:
Patient ID / UHID	:	Barcode NO	:
Referred BY	:	Sample Type	:
Sample Collected	:	Report Date	:

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

· Testicular defects
· Systemic diseases

Prostate Specific Antigen (PSA) Total

Prostate Specific Antigen-Total (PSA-Total) *ECLIA*	1.2	ng/mL	

Interpretation:

Age (years)	Ranges
< 40	<1.4
40 - 49	<2.0
50 - 59	<3.1
60 - 69	<4.1
>=70	<4.4

Prostate Specific Antigen (PSA) is a single-chain glycoprotein normally found in the cytoplasm of the epithelial cells lining the acini and ducts of the prostate gland. PSA is detected in the serum of males with normal, benign hyperplastic and malignant prostate tissue and in patients with prostatitis. PSA is not detected (or detected at very low levels) in the serum of males without prostate tissue (because of radical prostatectomy or cytoprostatectomy) or in the serum of most females. The fact that PSA is unique to prostate tissue makes it a suitable marker for monitoring men with cancer of the prostate. PSA is also useful for determining possible recurrence after therapy when used in conjunction with other diagnostic indices. PSA levels increase in men with cancer of the prostate. After radical prostatectomy PSA levels routinely fall to a very low level, which may not be seen in patients undergoing radiation therapy. Monitoring PSA levels appears to be useful in detecting residual disease and early recurrence of tumor. Therefore, serial PSA levels can help determine the success of prostatectomy and the need for further treatment, such as radiation, endocrine of chemotherapy and in the monitoring of the effectiveness of therapy.
PSA levels should not be interpreted as absolute evidence of presence or the absence of malignant disease. Before treatment, patients with confirmed prostate carcinoma frequently have levels of PSA within the range observed in healthy individuals. Elevated levels of PSA can be observed in the patients with nonmalignant disease. Measurement of PSA should always be used in conjunction with other diagnostic procedures, including information from the patients and clinical evaluation.
The concentration of total PSA in a given specimen determined with assays from different manufacturers can vary due to differences in assay methods, calibration, and reagent specificity.

Rima Rudra

Dr. Rima Rudra
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Consultant Biochemistry

Patient NAME			
DOB/Age/Gender		Report STATUS :	
Patient ID / UHID		Barcode NO :	
Referred BY		Sample Type :	
Sample Collected		Report Date :	

Test Description	Value(s)	Unit(s)	Reference Range
Creatine Phosphokinase (CPK)			
Creatine Kinase-CPK *NAC (N-acetyl-L-cysteine)*	87	U/L	30 - 200

Interpretation:
High CPK levels may be seen in patients who have Brain injury or stroke, Convulsions, Delirium tremens, Dermatomyositis or polymyositis, Electric shock, Heart attack, Inflammation of the heart muscle (myocarditis), Lung tissue death (pulmonary infarction), Muscular dystrophies, Myopathy.

DR. WALIA MURSHIDAHUDA
MBBS MD BIOCHEMISTRY
CONSULTANT BIOCHEMIST
DMC - 97314

Patient NAME	:		
DOB/Age/Gender	:	Report STATUS	:
Patient ID / UHID	:	Barcode NO	:
Referred BY	:	Sample Type	:
Sample Collected	:	Report Date	:

Test Description	Value(s)	Unit(s)	Reference Range
Immunoglobulin E (IgE Total)			
IMMUNOGLOBULIN IgE TOTAL SERUM *ECLIA*	41.2	IU/mL	<100.0

Interpretation:
The level of serum IgE rises during childhood and reaches adult levels during the teens. IgE is the mediator of the allergic response. Patients with atopic disease, including allergic asthama, allergic rhinitis, and atopic dermatitis commonly have moderately elevated serum IgE levels. Total serum IgE levels may also be elevated in the presence of some clinical conditions that are not related to allergy. These clinical conditions include parasitic infections, immunodeficiency states, autoimmune diseases, Hodgkins disease, bronchopulmonary aspergillosis, IgE myeloma, and Sezary syndrome.

Rima Rudra

Dr. Rima Rudra
WBMC(75259)
MBBS, MD (Biochemistry)
Consultant Biochemistry

Patient NAME	
DOB/Age/Gender	Report STATUS
Patient ID / UHID	Barcode NO
Referred BY	Sample Type
Sample Collected	Report Date

Test Description	Value(s)	Unit(s)	Reference Range
Apolipoproteins A1 & B			
Apolipoprotein A-1 (APO-A) *Tina-quant*	119		104 - 202
Apolipoprotein B (APO-B)	126	mg/dL	66-144
Apo B / Apo A1 Ratio	**1.06 H***		0.35-0.98

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.

Note :- (H* - High , L* - Low ,CL* - Critical Low,CH* - Critical High)

Rima Rudra

Dr. Rima Rudra
WBMC(75259)
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Consultant Biochemistry

Patient NAME	**: Mr Amitabh Ranjan Raj**		
DOB/Age/Gender	: 52 Y/Male	Report STATUS	: Final Report
Patient ID / UHID	: 15759723/RCL3854919	Barcode NO	: 31877737
Referred BY	: Self	Sample Type	: Serum
Sample Collected	: Mar 05, 2026, 08:39 AM	Report Date	: Mar 05, 2026, 07:21 PM.

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

Hepatitis C Antibody (HCV), Rapid Card

HEPATITIS C ANTIBODY (Anti-HCV) *Qualitative immunoassay,rapid card*	NON REACTIVE		NON REACTIVE

Interpretation:

RESULTS	REMARKS
Reactive	Reactive test result indicates presence of Hepatitis C virus infection
Non Reactive	Non Reactive test result indicates absence of Hepatitis C virus infection

NOTE

1.The **4TH Generation** HCV TRI-DOT detects anti-HCV in human serum or plasma and is **only a screening test**. All reactive samples should be confirmed by supplemental assays like RIBA .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.A non reactive-results does not exclude the possibility of exposure to or infection with HCV.
3.Repeated false results may occur due to non-specefic binding of the sample to the membrane.
4.The presence of anti-HCV does not imply a HepatitisC infection but may be indicative of recent and /or past infection By HCV.
5.Patients with auto-immune liver diseases may show falsely reactive results.
6. False positive results may be observed in patients receiving mouse monoclonal antibodies, on heparin therapy, on biotin supplements for diagnosis or therapy or presence of heterophilic antibodies in serum.
5. False negative reaction may be due to processing of sample collected early in the course of disease, Prozone phenomenon, Immunosuppression & Immuno-incompetence.

Uses ·
To diagnose suspected HCV infection in risk group.
Prenatal Screening of pregnant women and pre surgical/interventional procedures work up.

Hepatitis B Surface Antigen (HBsAg), Rapid Card

HEPATITIS B SURFACE ANTIGEN (HBsAg) *Qualitative immunoassay,rapid card*	NON REACTIVE		NON REACTIVE

Interpretation:

RESULTS	REMARKS
Reactive	The sample is Reactive for HBsAg
Non Reactive	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.

Paulami Ghosh

Dr. Paulami Ghosh
WBMC (80301)
MD. Microbiology
Consultant Microbiologist

Patient NAME	
DOB/Age/Gender	Report STATUS
Patient ID / UHID	Barcode NO
Referred BY	Sample Type
Sample Collected	Report Date

Urine Routine and Microscopic Examination

Test Description	Value(s)	Unit(s)	Reference Range
Physical Examination			
Volume *Visual*	15	mL	-
Colour *Visual*	Pale yellow	-	Pale yellow
Transparency *Visual*	Clear	-	Clear
Deposit *Visual*	Absent	-	Absent
Chemical Examination			
Reaction (pH) *Double Indicator*	6.0	-	4.5 - 8.0
Specific Gravity *Ion Exchange*	1.015	-	1.010 - 1.030
Urine Glucose (sugar) *Oxidase Peroxidase*	**Positive(+) H***	-	Negative
Urine Protein (Albumin) *Acid/Base colour exchange*	Negative	-	Negative
Urine Ketones (Acetone) *Legals test*	Negative	-	Negative
Blood *Peroxidase*	Negative	-	Negative
Leucocyte esterase *Enzymatic reaction (Indoxyl ester)*	Negative	-	Negative
Bilirubin Urine *diazonium salt*	Negative	-	Negative
Nitrite *Griless Test*	Negative	-	Negative
Urobilinogen *Ehrlichs Test*	Normal	-	Normal
Microscopic Examination			
Pus Cells (WBCs) *Wet Mount*	2-3	/hpf	0 - 5
Epithelial Cells *Wet Mount*	1-2	/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

Note :- (H* - High , L* - Low ,CL* - Critical Low,CH* - Critical High)

Dr. Deep Banerjee
WBMC 79005
MBBS, M.D
Consultant Pathologist

Patient NAME	
DOB/Age/Gender	Report STATUS :
Patient ID / UHID	Barcode NO :
Referred BY	Sample Type :
Sample Collected	Report Date :

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 ***

Note :- (H* - High , L* - Low ,CL* - Critical Low,CH* - Critical High)

Dr. Deep Banerjee
WBMC 79005
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Consultant Pathologist

LABORATORY REPORT

Redcliffe labs

Redcliffe Lifetech Pvt. Ltd.

PATIENT REPORT

Patient Data

Sample ID:
Patient ID:
Name:
Physician:
Sex:
DOB:

Comments:

Analysis Data

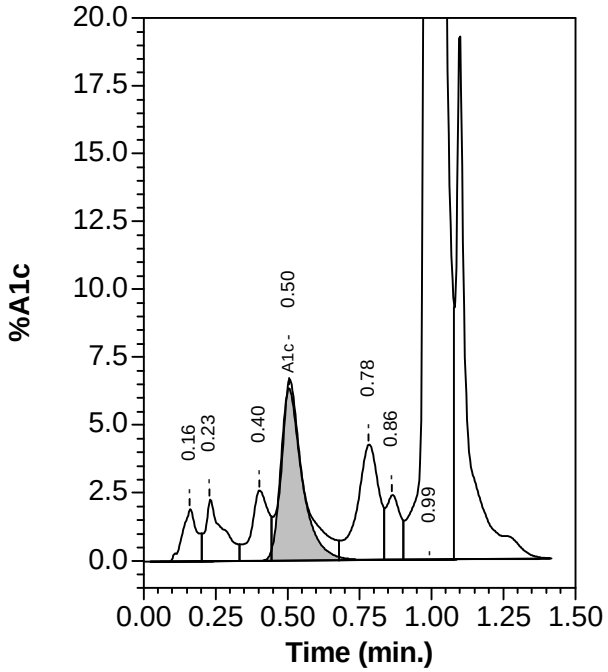
Analysis Performed:
Injection Number:
Run Number:
Rack ID:
Tube Number:
Report Generated:
Operator ID:

Peak Name	NGSP %	Area %	Retention Time (min)	Peak Area
A1a	---	1.1	0.158	19712
A1b	---	1.5	0.227	27546
LA1c	---	1.6	0.403	28268
A1c	6.4*	---	0.504	96279
P3	---	3.5	0.780	62866
P4	---	1.3	0.861	23231
Ao	---	85.7	0.994	1550388

*Values outside of expected ranges

Total Area: 1,808,289

HbA1c (NGSP) = 6.4* %



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2. It is to be presumed that the tests performed pertain to the specimen/sample attributed to the Customer's name or identification. It is presumed that the verification particulars have been cleared out by the customer or his/her representation at the point of generation of said specimen / sample. It is hereby clarified that the reports furnished are restricted solely to the given specimen only.

3. It is to be noted that variations in results may occur between different laboratories and over time, even for the same parameter for the same Customer. The assays are performed and conducted in accordance with standard procedures, and the reported outcomes are contingent on the specific individual assay methods and equipment(s) used, as well as the quality of the received specimen.

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