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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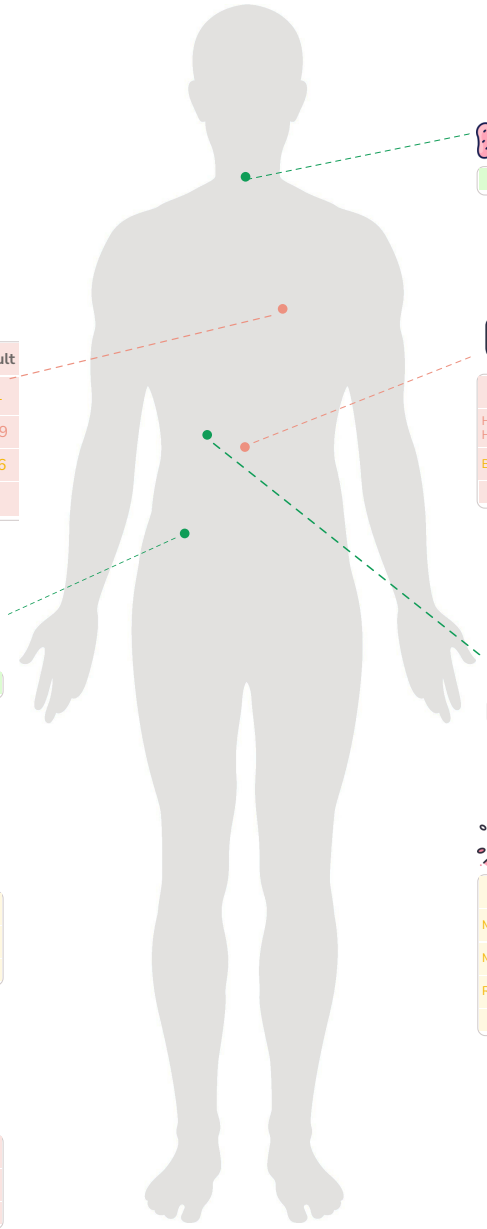
All In Range Borderline Out Of Range

Health Summary



THYROID PROFILE

Everything looks good

CARDIAC PROFILE

Test Name	Result
HIGHLY SENSITIVE C-REACTIVE PROTEIN (hs-CRP)	1.1
Homocysteine	31.9
Triglycerides	166

+ 2 tests Please Watchout

DIABETES MONITORING

Test Name	Result
HbA1c (Glycosylated Haemoglobin)	9.3
Blood Sugar (Fasting)	114

Please Watchout

KIDNEY PROFILE

Everything looks good

LIVER PROFILE

Everything looks good

ELECTROLYTES

Test Name	Result
Phosphorus	4.9

Please Watchout

ANEMIA STUDIES

Test Name	Result
MCV	70.7
MCH	22.3
RDW-SD	30.2

Please Watchout

VITAMIN PROFILE

Test Name	Result
Vitamin D 25 - Hydroxy	20.7

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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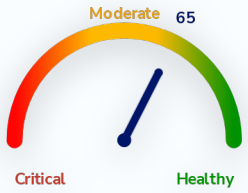
Quick Health Summary

Personal Insights - Health Score

65

Overall, most parameters are within normal ranges, indicating good general health. The profiles for Pancreatic Disorders, Vitamins and Minerals, and Diabetes may affect energy levels and metabolic balance, so consider maintaining a balanced diet rich in fruits, vegetables, and whole grains, along with regular exercise such as walking or yoga. Routine check-ups are advisable to monitor these areas, and consulting a healthcare professional can provide personalized guidance. Remember, small consistent changes can lead to meaningful improvements in your well-being.



Note - Higher scores tentatively indicate better health status

Summary of Key Health Indicators

Total Parameters Tested	Borderline Results	Out Of Range Results
107	9	8

Health Status by Body System

Profile	Total	Borderline	Out of Range	Key Results
Cardiac Profile	11	3	2	Homocysteine **(31.9)** HDL Cholesterol **(31.7)** HsCRP **(1.1)** Triglycerides **(166)** VLDL **(33.2)**
Pancreas	2	0	1	Lipase **(96.7)**
Iron	4	1	1	UIBC **(441)** TIBC **(538.4)**
Vitamin Profile	2	0	1	Vitamin D (25-Hydroxy) **(20.7)**
Cancer Profile	3	0	1	CEA **(3.8)**
Infectious Diseases	4	0	1	PCT **(0.4)**
Diabetes Monitoring	4	1	1	HbA1c (Glycosylated Haemoglobin) **(9.3)** Blood Sugar (Fasting) **(114)**

Profile	Total	Borderline	Out of Range	Key Results
Inflammation	2	0	0	All In Range
Autoimmune Disorders	1	0	0	All In Range
Thyroid Profile	3	0	0	All In Range
Hormones	1	0	0	All In Range
Allergy Panel	1	0	0	All In Range
Anemia Studies	9	3	0	MCV (70.7) MCH (22.3) RDW-SD (30.2)
Blood Disorder	16	0	0	All In Range
Liver Profile	14	0	0	All In Range
Kidney Profile	12	0	0	All In Range
Electrolytes	5	1	0	Phosphorus (4.9)
Urinalysis	12	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
ESR - Erythrocyte Sedimentation Rate	3 mm/hr	< 12
CRP (Quantitative)	1.1 mg/L	< 5

PANCREAS

Test Name	Result unit	Range
Lipase	**96.7** U/L	< 67
Amylase	65.6 U/L	25 - 125

IRON

Test Name	Result unit	Range
Iron	97.4 µg/dL	65 - 175
TIBC,(Total Iron Binding Capacity)	**538.4** µg/dL	250 - 450
UIBC	**441** µg/dL	69 - 240
Transferrin Saturation	18.09 %	14 - 50

CARDIAC PROFILE

Test Name	Result unit	Range
HIGHLY SENSITIVE C-REACTIVE PROTEIN (hs-CRP)	**1.1** mg/L	< 1
Homocysteine	**31.9** umol/L	5 - 20
Total Cholesterol	112 mg/dL	< 200
Triglycerides	**166** mg/dL	< 150
HDL Cholesterol	**31.7** mg/dL	40 - 80
Non HDL Cholesterol	80.3 mg/dL	< 130
LDL Cholesterol	47.1 mg/dL	30 - 100
V.L.D.L Cholesterol	**33.2** mg/dL	< 30
Chol/HDL Ratio	3.53 Ratio	3.5 - 5
HDL/ LDL Ratio	0.67 Ratio	0.5 - 3
LDL/HDL Ratio	1.49 Ratio	

AUTOIMMUNE DISORDERS

Test Name	Result unit	Range
RHEUMATOID FACTOR, Quantitative	6.5 IU/mL	< 14

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VITAMIN PROFILE

Test Name	Result unit	Range
Vitamin - B12	234 pg/mL	187 - 883
Vitamin D 25 - Hydroxy	**20.7** ng/mL	30 - 100

THYROID PROFILE

Test Name	Result unit	Range
Triiodothyronine (T3)	115 ng/dL	80 - 200
Total Thyroxine (T4)	10.8 µg/dL	4.5 - 11.7
Thyroid Stimulating Hormone (Ultrasensitive)	4.03 mIU/L	0.35 - 4.94

HORMONES

Test Name	Result unit	Range
Testosterone Total	429 ng/dL	192 - 740

CANCER PROFILE

Test Name	Result unit	Range
Prostate Specific Antigen-Total (PSA-Total)	0.9 ng/mL	
CEA; CARCINO EMBRYONIC ANTIGEN, SERUM	**3.8** ng/mL	< 3
CA 19.9 ;PANCREATIC CANCER MARKER, SERUM	5.15 U/mL	< 37

ALLERGY PANEL

Test Name	Result unit	Range
IMMUNOGLOBULIN IgE TOTAL SERUM	27.7 IU/mL	< 100

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ANEMIA STUDIES

Test Name	Result unit	Range
Hemoglobin	13.5 g/dL	13 - 17
PCV	42.8 %	40 - 50
MCV	**70.7** fl	83 - 101
MCH	**22.3** pg	27 - 32
MCHC	31.6 g/dL	31.5 - 34.5
RDW (CV)	13.4 %	11.6 - 14
RDW-SD	**30.2** fl	35.1 - 43.9
Mentzer Index	11.69	
Red blood Cells	Absent /hpf	

BLOOD DISORDER

Test Name	Result unit	Range
TLC	9 10^3/µl	4 - 10
Neutrophils	55 %	40 - 80
Lymphocytes	35.8 %	20 - 40
Monocytes	5.7 %	2 - 10
Eosinophils	3.4 %	1 - 6
Basophils	0.1 %	< 2
Neutrophils.	4.95 cells/µL	
Lymphocytes.	3.22 cells/µL	
Monocytes.	0.51 cells/µL	
Eosinophils.	0.31 cells/µL	
Basophils.	0.01 cells/mL	
Platelet Count	410 10^3/µl	150 - 410
Mean Platelet Volume (MPV)	8.6 fL	8 - 11
PDW	9.6 fL	8.3 - 25
P-LCR	22.6 %	18 - 50
P-LCC	93 10^9/L	44 - 140

INFECTIOUS DISEASES

Test Name	Result unit	Range
PCT	**0.4** %	0.17 - 0.32
Deposit	Absent	
Yeast Cells	Absent	
Protozoa	Absent	

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

DIABETES MONITORING

Test Name	Result unit	Range
Glycosylated Hemoglobin (HbA1c)	**9.3** %	< 5.7
Estimated Average Glucose	220.21 mg/dL	
Glucose Fasting	**114** mg/dL	70 - 100
Urine Glucose (sugar)	Positive(++)	

LIVER PROFILE

Test Name	Result unit	Range
Bilirubin Total	0.33 mg/dL	0.2 - 1.2
Bilirubin Direct	0.2 mg/dL	< 0.5
Bilirubin Indirect	0.13 mg/dL	0.1 - 1
SGOT/AST	17.9 U/L	< 50
SGPT/ALT	15.5 U/L	< 50
SGOT/SGPT Ratio	1.15 %	
Alkaline Phosphatase	59.2 U/L	40 - 129
Total Protein	7.4 g/dL	6.4 - 8.3
Albumin	4.8 g/d	3.5 - 5.2
Globulin	2.6 g/dL	2.3 - 3.5
Albumin :Globulin Ratio	1.85	1 - 2.1
Gamma Glutamyl Transferase (GGT)	11.2 U/L	8 - 61
Bilirubin Urine	Negative	
Urobilinogen	Normal	

KIDNEY PROFILE

Test Name	Result unit	Range
Blood Urea	28 mg/dL	18 - 55
Bun	13.08 mg/dL	8.4 - 25.7
Creatinine	1 mg/dl	0.7 - 1.2
eGFR (CKD-EPI)	87.76 ml/min/1.73 sq m	
Bun/Creatinine Ratio	13.08	12 - 20
Urea / Creatinine Ratio	28	25.68 - 42.8
Uric Acid	3.5 mg/dL	3.4 - 7
Calcium Serum	9.2 mg/dL	8.4 - 10.2
Urine Protein (Albumin)	Negative	
Blood	Negative	
Crystals	Absent	
Cast	Absent	

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ELECTROLYTE PROFILE

Test Name	Result unit	Range
Phosphorus	**4.9** mg/dL	2.3 - 4.7
Sodium	139.1 mmol/L	136 - 145
Potassium	4.0 mmol/L	3.5 - 5.1
Chloride	99 mmol/L	98 - 107
Magnesium,Serum	2.15 mg/dL	1.6 - 2.6

URINALYSIS

Test Name	Result unit	Range
Volume	10 ml	
Colour	Pale yellow	
Transparency	Clear	
Reaction (pH)	6.0	4.5 - 8
Specific Gravity	1.020	1.01 - 1.03
Urine Ketones (Acetone)	Negative	
Leucocyte esterase	Negative	
Nitrite	Negative	
Pus Cells (WBCs)	2-3 /hpf	
Epithelial Cells	1-2 /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 **65/100** (01-04-2026)

Summary of Key Improvements / Declines	Outcome
Total parameters improved	3 of 65 parameters tested earlier
• RDW (CV) • Bun/Creatinine Ratio • Urea / Creatinine Ratio	
New Out of range parameters detected	4 new issues
• TIBC,(Total Iron Binding Capacity) • HIGHLY SENSITIVE C-REACTIVE PROTEIN (hs-CRP) • PCT • Phosphorus	

Parameter-Wise Comparison

Parameter	Current 01-04-2026	Previous	Range	Value Change	Trend
TIBC,(Total Iron Binding Capacity)	● 538.4	● 430 30-06-2024	250-450 µg/dL	+108.4	Need Attention
UIBC	● 441	● 329 30-06-2024	69-240 µg/dL	+112	Still out of range
HIGHLY SENSITIVE C-REACTIVE PROTEIN (hs-CRP)	● 1.1	● 0.3 30-06-2024	0-1 mg/L	+0.8	Need Attention
Vitamin D 25 - Hydroxy	● 20.7	● 22 30-06-2024	30-100 ng/mL	-1.3	Still out of range
MCV	● 70.7	● 74.7 30-06-2024	83-101 fl	-4	Still out of range
MCH	● 22.3	● 25.2 30-06-2024	27-32 pg	-2.9	Still out of range
RDW (CV)	● 13.4	● 15.3 30-06-2024	11.6-14.0 %	-1.9	Improved
RDW-SD	● 30.2	● 33.4 30-06-2024	35.1-43.9 fl	-3.2	Still out of range

Parameter	Current 01-04-2026	Previous	Range	Value Change	Trend
PCT	0.4	0.3 30-06-2024	0.17-0.32 %	+0.1	Need Attention
Glycosylated Hemoglobin (HbA1c)	9.3	8.3 23-07-2025	0-5.7 %	+1	Still out of range
Glucose Fasting	114	102 22-05-2025	70-100 mg/dL	+12	Still out of range
Bun/Creatinine Ratio	13.08	10.98 30-06-2024	12-20	+2.1	Improved
Urea / Creatinine Ratio	28	23.5 30-06-2024	25.68-42.8	+4.5	Improved
Phosphorus	4.9	4.3 30-06-2024	2.3-4.7 mg/dL	+0.6	Need Attention
Triglycerides	166	269 15-05-2025	0-150 mg/dL	-103	Still out of range
HDL Cholesterol	31.7	33 15-05-2025	40-80 mg/dL	-1.3	Still out of range
V.L.D.L Cholesterol	33.2	53.8 15-05-2025	0-30 mg/dL	-20.6	Still out of range

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Health Advisory

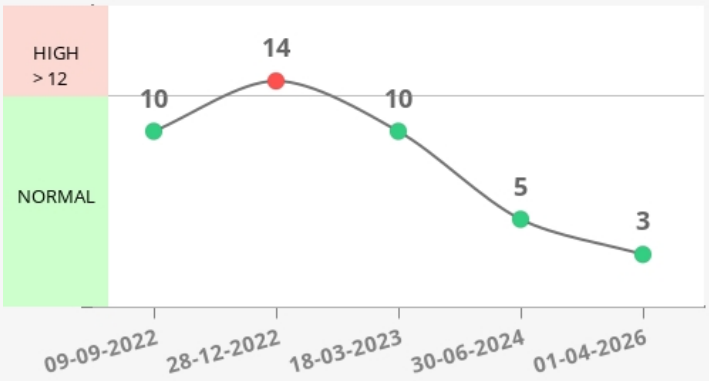
In Range Borderline (BL) Out Of Range

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: 3 mm/hr

IN RANGE

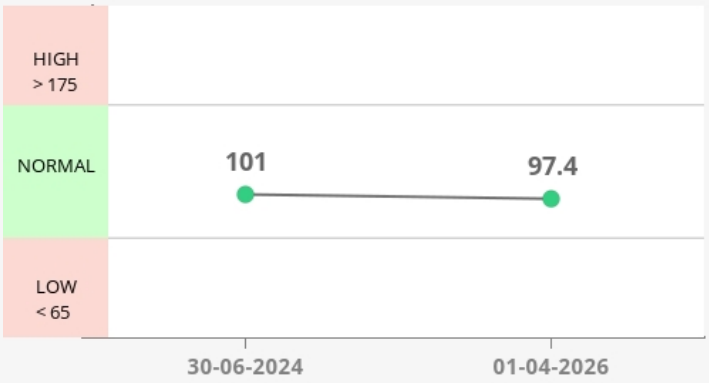


Iron

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: 97.4 µg/dL

● IN RANGE

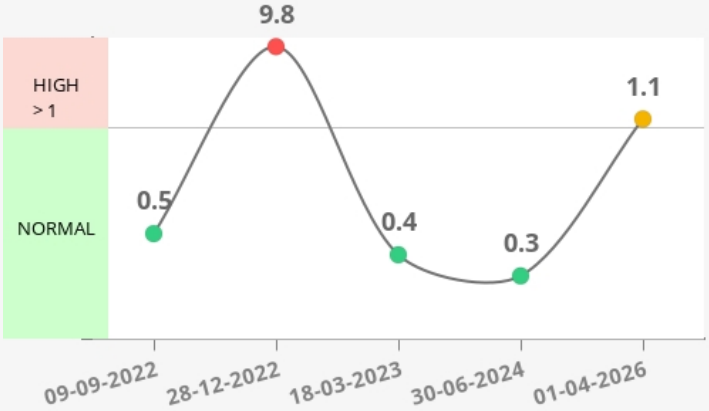


Cardiac Profile

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.

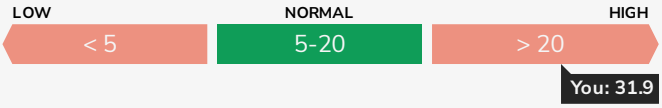
HIGHLY SENSITIVE C-REACTIVE PROTEIN (hs-CRP): 1.1 mg/L

● BORDERLINE



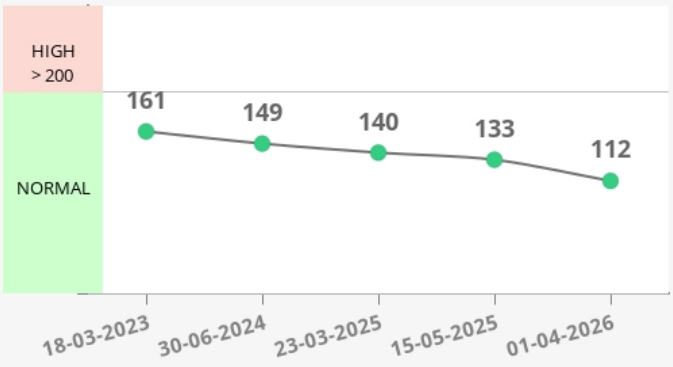
Homocysteine: 31.9 umol/L

OUT OF RANGE



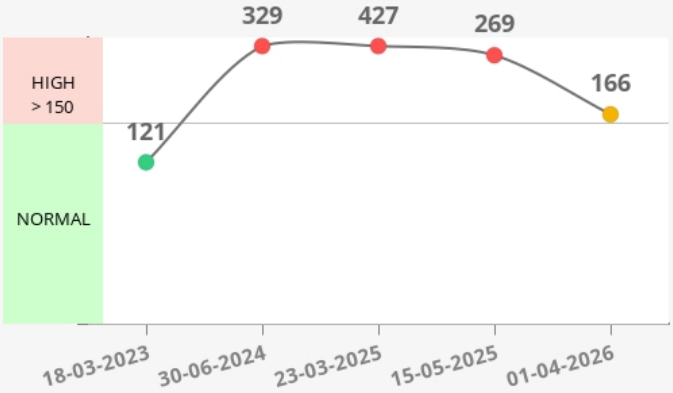
Total Cholesterol: 112 mg/dL

IN RANGE



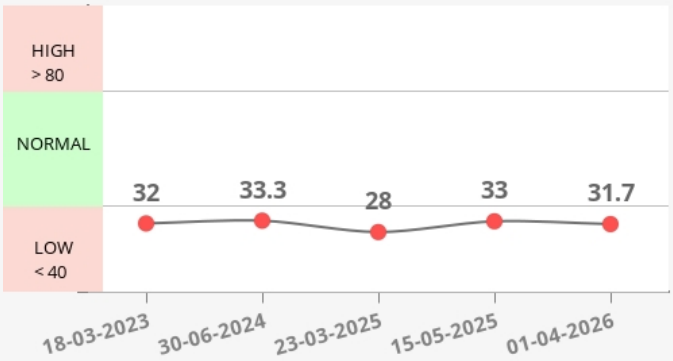
Triglycerides: 166 mg/dL

BORDERLINE



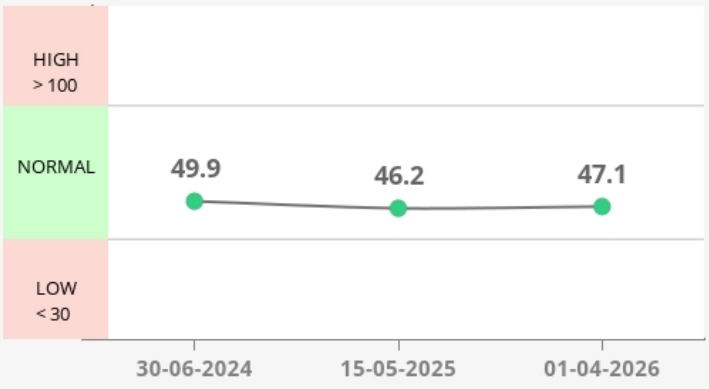
HDL Cholesterol: 31.7 mg/dL

OUT OF RANGE



LDL Cholesterol: 47.1 mg/dL

IN RANGE

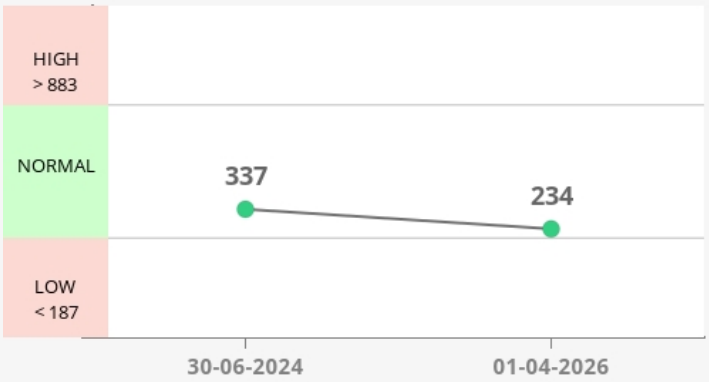


Vitamins Profile

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

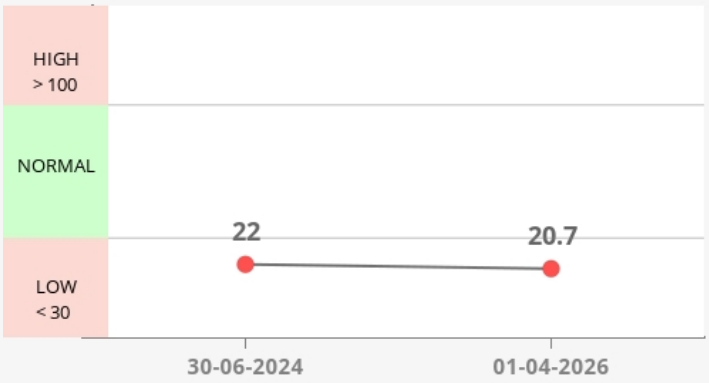
Vitamin - B12: 234 pg/mL

IN RANGE



Vitamin D 25 - Hydroxy: 20.7 ng/mL

OUT OF RANGE

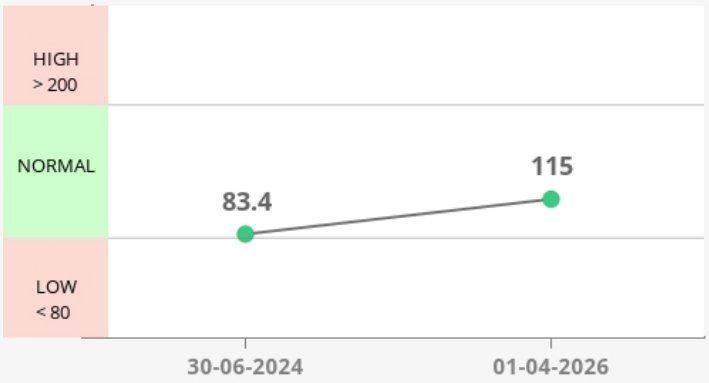


Thyroid

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

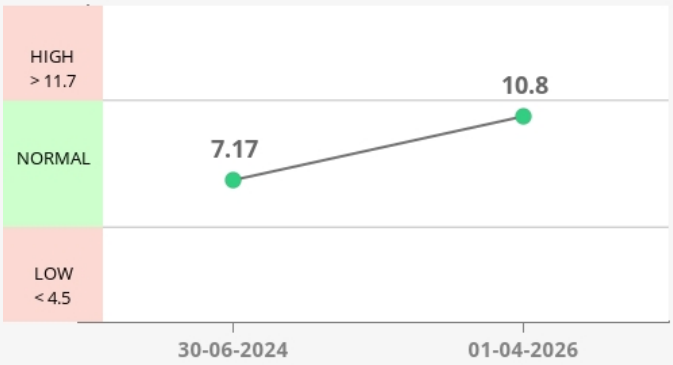
Triiodothyronine (T3): 115 ng/dL

● IN RANGE



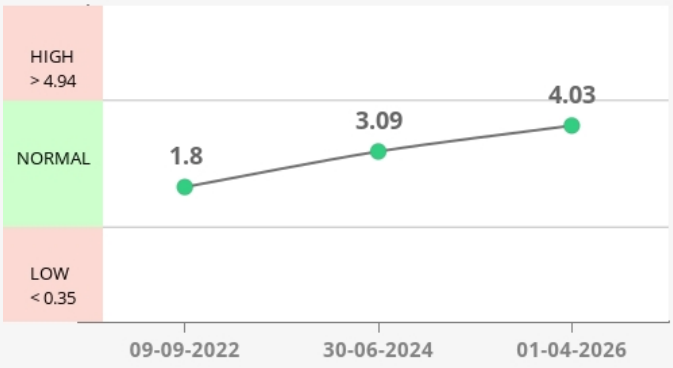
Total Thyroxine (T4): 10.8 µg/dL

● IN RANGE



Thyroid Stimulating Hormone (Ultrasensitive): 4.03 mIU/L

● IN RANGE

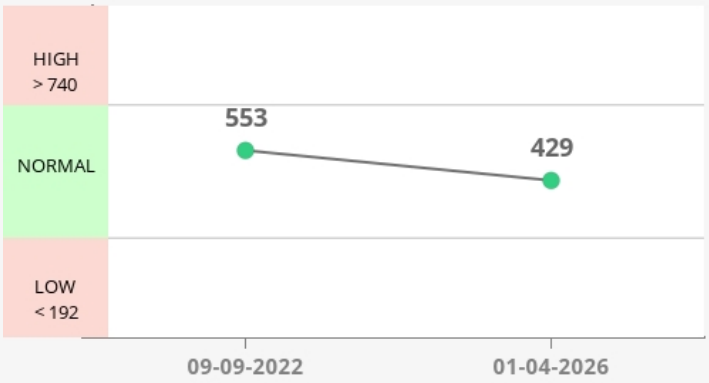


Hormones

Hormones are chemicals in your body that do a variety of functions- growth, metabolism, sexual functions, and regulation of mood. These tests are usually performed to check if there is any hormone disorder

Testosterone Total: 429 ng/dL

● IN RANGE



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.

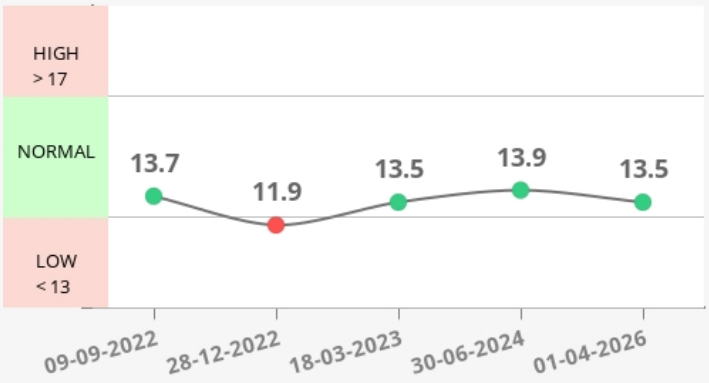
Prostate Specific Antigen-Total (PSA-Total): 0.9 ng/mL

Anemia Profile

Anemia is the condition where your body has less RBCs (red blood cells) or the RBCs don't have enough haemoglobin. Haemoglobin is the protein present in RBCs that help carry oxygen to your body's tissues.

Hemoglobin: 13.5 g/dL

● IN RANGE

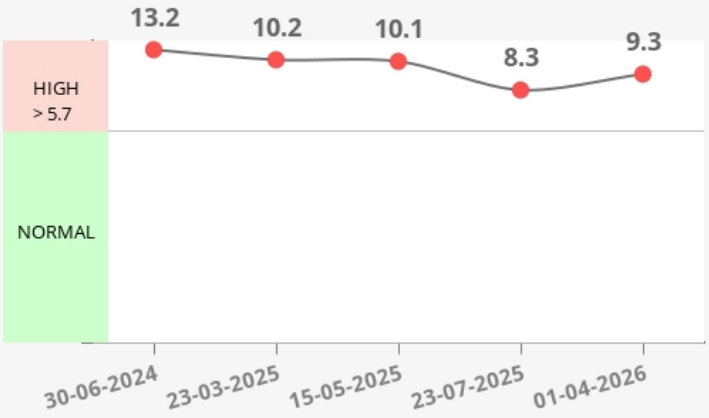


Diabetes

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

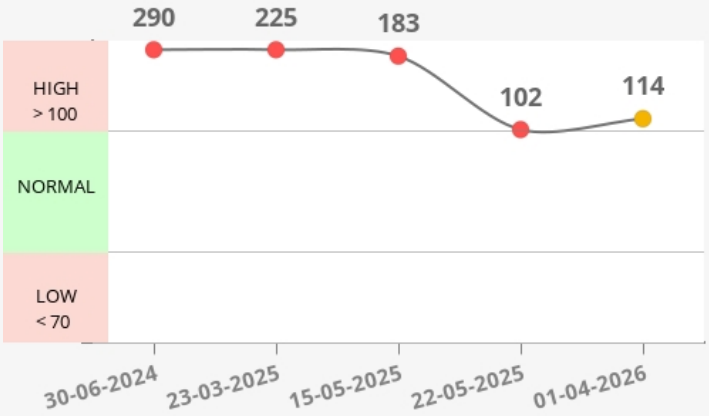
Glycosylated Hemoglobin (HbA1c): 9.3 %

OUT OF RANGE



Glucose Fasting: 114 mg/dL

BORDERLINE

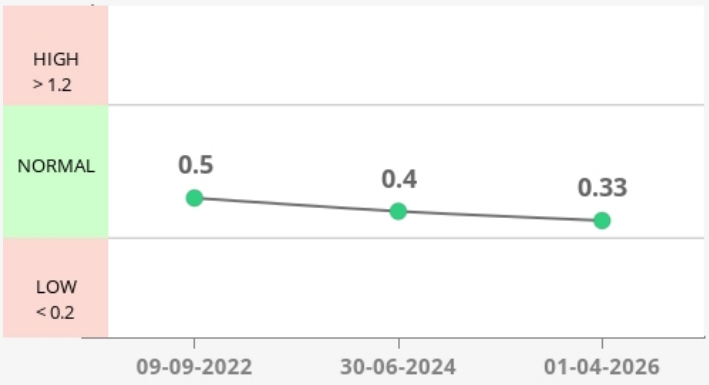


Liver Profile

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

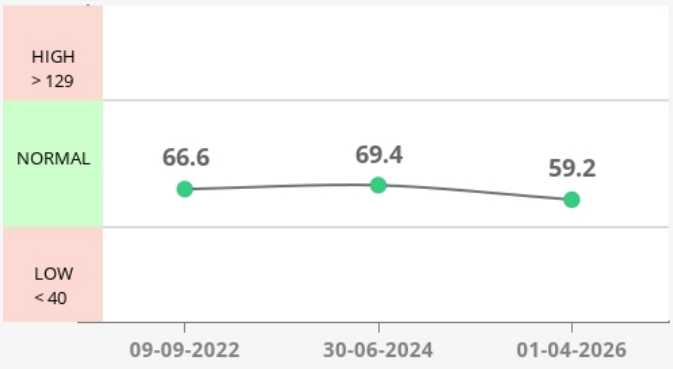
Bilirubin Total: 0.33 mg/dL

● IN RANGE



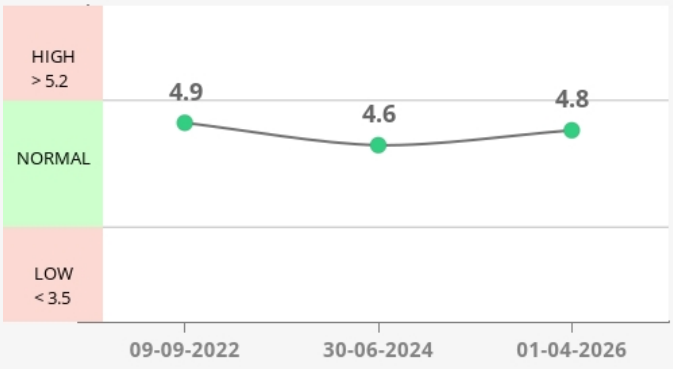
Alkaline Phosphatase: 59.2 U/L

● IN RANGE



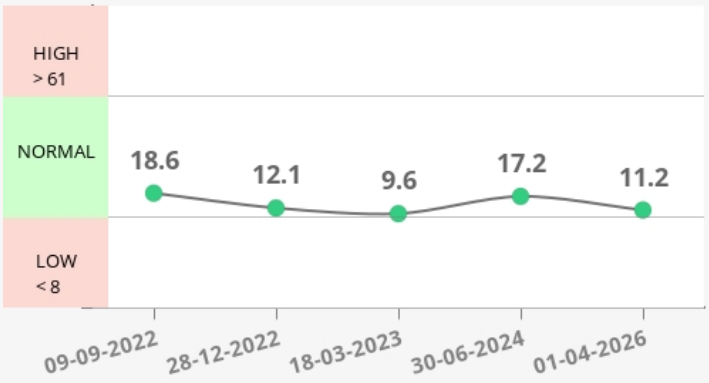
Albumin: 4.8 g/d

● IN RANGE



Gamma Glutamyl Transferase (GGT): 11.2 U/L

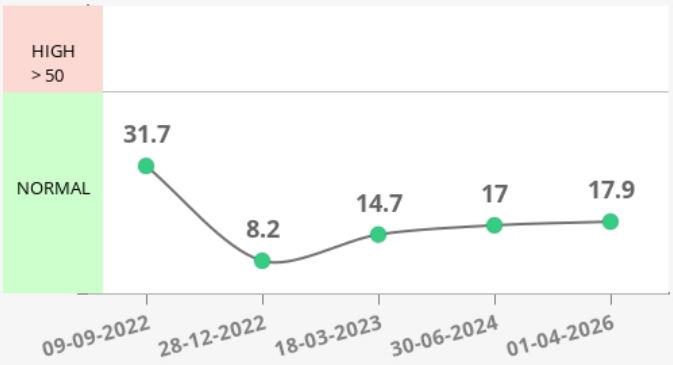
● IN RANGE



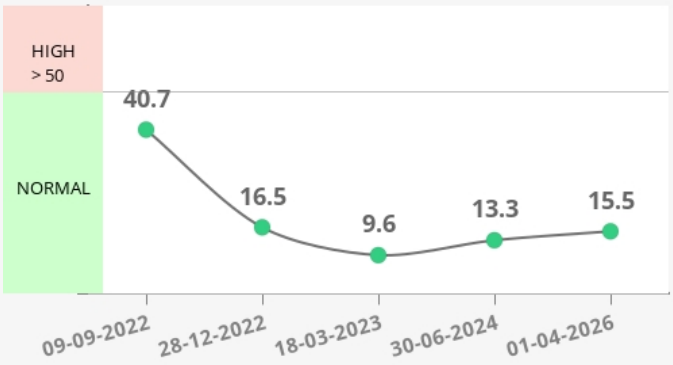
Enzymes

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: 17.9 U/L — IN RANGE



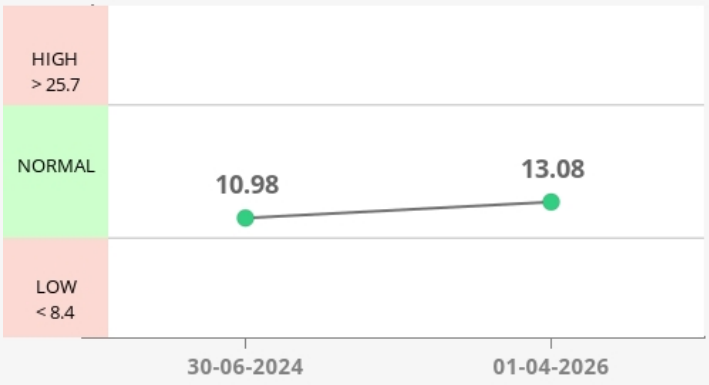
SGPT/ALT: 15.5 U/L — IN RANGE



Kidney Profile

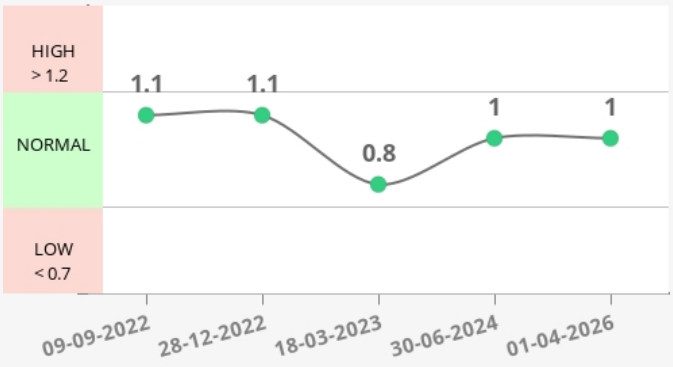
This panel is used to check healthy functioning of your kidneys. Kidneys filter blood in your body to remove waste products - these waste products are produced when breakdown of proteins (present in food, muscles and other cells) occurs in the body to generate energy

Bun: 13.08 mg/dL — IN RANGE



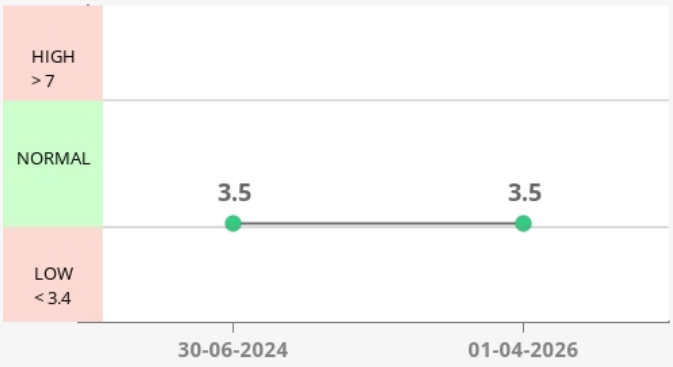
Creatinine: 1 mg/dl

IN RANGE



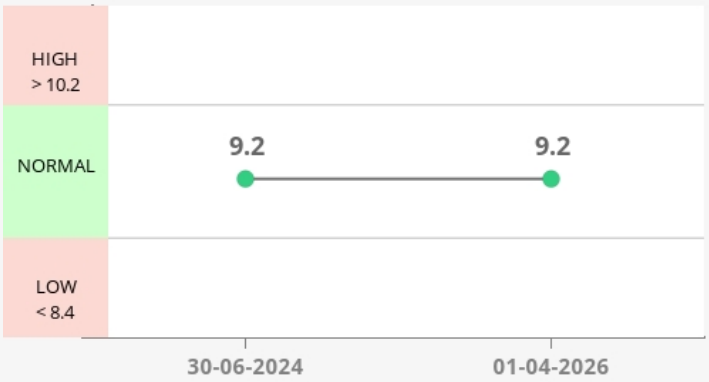
Uric Acid: 3.5 mg/dL

IN RANGE



Calcium Serum: 9.2 mg/dL

IN RANGE



LABORATORY REPORT

Redcliffe labs

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

StayFit Platinum Full Body Checkup Package - Male

Complete Blood Count (CBC)

Test Description	Value(s)	Unit(s)	Reference Range
RBC Parameters			
Hemoglobin *colorimetric*	13.5	g/dL	13.0 - 17.0
RBC Count *Electrical impedance*	**6.05 H***	10^6/µl	4.5 - 5.5
PCV *Calculated*	42.8	%	40 - 50
MCV *Calculated*	**70.7 L***	fl	83 - 101
MCH *Calculated*	**22.3 L***	pg	27 - 32
MCHC *Calculated*	31.6	g/dL	31.5 - 34.5
RDW (CV) * *Calculated*	13.4	%	11.6 - 14.0
RDW-SD * *Calculated*	**30.2 L***	fl	35.1 - 43.9
WBC Parameters			
TLC *Electrical impedance and microscopy*	9	10^3/µl	4 - 10
Differential Leucocyte Count			
Neutrophils	55	%	40-80
Lymphocytes	35.8	%	20-40
Monocytes	5.7	%	2-10
Eosinophils	3.4	%	1-6
Basophils	0.1	%	<2
Absolute Leukocyte Counts			
Neutrophils.	4.95		
Lymphocytes.	3.22		
Monocytes.	0.51		
Eosinophils.	0.31		
Basophils.	0.01		
Platelet Parameters			
Platelet Count *Electrical impedance and microscopy*	410	10^3/µl	150 - 410
Mean Platelet Volume (MPV) * *Calculated*	8.6	fL	8.0 - 11.0
PCT * *Calculated*	**0.4 H***	%	0.17 - 0.32

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
PDW * *Calculated*	9.6	fL	8.3 - 25.0
P-LCR * *Calculated*	22.6	%	18 - 50
P-LCC * *Calculated*	93	10^9/L	44 - 140
Mentzer Index *	11.69		

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 :
Patient ID / UHID	Barcode NO :
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*	3	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			
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Sample Collected		Report Date	:

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

HbA1C (Glycosylated Haemoglobin)

Glycosylated Hemoglobin (HbA1c) *HPLC*	**9.3 H***	%	<5.7
Estimated Average Glucose *	220.21	mg/dL	Refer Table Below

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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Patient NAME	
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Patient ID / UHID	Barcode NO :
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Sample Collected	Report Date :

Test Description	Value(s)	Unit(s)	Reference Range
Blood Sugar Fasting			
Glucose Fasting *Hexokinase*	**114 H***	mg/dL	70 - 100

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	:
Patient ID / UHID	:	Barcode NO	:
Referred BY	:	Sample Type	:
Sample Collected	:	Report Date	:

Liver Function Test (LFT)

Test Description	Value(s)	Unit(s)	Reference Range
Bilirubin Total *Photometric*	0.33	mg/dL	0.2 - 1.2
Bilirubin Direct * *Diazo Reaction*	0.2	mg/dL	0.0 - 0.5
Bilirubin Indirect * *Calculation (T Bil - D Bil)*	0.13	mg/dL	0.1 - 1.0
SGOT/AST *IFCC with P5P*	17.9	U/L	0 - 50
SGPT/ALT *IFCC with P5P*	15.5	U/L	0 - 50
SGOT/SGPT Ratio *	1.15	-	-
Alkaline Phosphatase	59.2	U/L	40-129
Total Protein *Biuret*	7.4	g/dL	6.4 - 8.3
Albumin *Bromocresol Green*	4.8	g/d	3.5 - 5.2
Globulin * *Calculation (T.P - Albumin)*	2.6	g/dL	2.3 - 3.5
Albumin :Globulin Ratio * *Calculation (Albumin/Globulin)*	1.85	-	1.0 - 2.1
Gamma Glutamyl Transferase (GGT) * *Enzymatic Colorimetry*	11.2	U/L	8 - 61

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

Kidney Function Test (KFT)

Test Description	Value(s)	Unit(s)	Reference Range
Blood Urea *Urease*	28	mg/dL	18 - 55
Bun * *Urease*	13.08	mg/dL	8.4 - 25.7
Creatinine *Jaffe Kinetic*	1	mg/dl	0.70 - 1.20
eGFR (CKD-EPI)	87.76	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*	13.08		12 - 20
Urea / Creatinine Ratio * *Calculated*	28		25.68- 42.8
Uric Acid *Uricase*	3.5	mg/dL	3.4 - 7.0
Calcium Serum *Arsenazo III*	9.2	mg/dL	8.4 - 10.2
Phosphorus *Photometric*	**4.9 H***	mg/dL	2.3 - 4.7
Sodium *Potentiometric*	139.1	mmol/L	136 - 145
Potassium *Potentiometric*	4.0	mmol/L	3.5 - 5.1
Chloride *Potentiometric*	99	mmol/L	98 - 107

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 *Enzymatic - Cholesterol Oxidase*	112	mg/dL	<200
Triglycerides *Colorimetric - Lip/Glycerol Kinase*	**166 H***	mg/dL	<150
HDL Cholesterol *Accelerator Selective Detergent*	**31.7 L***	mg/dL	>40
Non HDL Cholesterol * *Calculated*	80.3	mg/dL	<130
LDL Cholesterol * *Calculated*	47.1	mg/dL	<100
V.L.D.L Cholesterol * *Calculated*	**33.2 H***	mg/dL	< 30
Chol/HDL Ratio * *Calculated*	3.53	Ratio	3.5 - 5.0
HDL/ LDL Ratio * *Calculated*	0.67	Ratio	0.5 - 3.0
LDL/HDL Ratio * *Calculated*	1.49	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

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 :
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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.

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
Lipase			
Lipase *Spectrophotometry*	**96.7 H***	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

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
Amylase			
Amylase *Serum,. 2-chloro-p-nitrophenyl-a-D-maltotrioside*	65.6	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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Patient NAME	
DOB/Age/Gender	Report STATUS :
Patient ID / UHID	Barcode NO :
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Sample Collected	Report Date :

Test Description	Value(s)	Unit(s)	Reference Range
Iron Studies			
Iron *Ferene*	97.4	µg/dL	65 - 175
TIBC,(Total Iron Binding Capacity) *Calculated*	**538.4 H***	µg/dL	250 - 450
UIBC *Ferene*	**441 H***	µg/dL	69 - 240
Transferrin Saturation *Method :Derived from IRON and TIBC values*	18.09	%	-

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*	1.1	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*	**1.1 H***	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.

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

Rheumatoid Factor (RF), Quantitative

RHEUMATOID FACTOR, Quantitative *Immunoturbidimetry*	6.5	IU/mL	0 - 14

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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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*	234	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."

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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

Vitamin D 25 Hydroxy

Vitamin D 25 - Hydroxy *ECLIA*	**20.7 L***	ng/mL	Deficiency : <30 ng/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.

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

Dr. Vittal SriNavya
MBBS MD(Pathology)

Patient NAME	
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Patient ID / UHID	Barcode NO :
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Test Description	Value(s)	Unit(s)	Reference Range

Thyroid Profile Total

Triiodothyronine (T3) *ECLIA*	115	ng/dL	80 - 200
Total Thyroxine (T4) *ECLIA*	10.8	µg/dL	4.5 - 11.7
Thyroid Stimulating Hormone (Ultrasensitive) *CMIA*	4.03	mIU/L	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)

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

Testosterone Total

Testosterone Total	429	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
· Testicular defects

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Patient NAME	
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Test Description	Value(s)	Unit(s)	Reference Range
· Systemic diseases			

Prostate Specific Antigen (PSA) Total

Prostate Specific Antigen-Total (PSA-Total) *ECLIA*	0.9	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.

Dr. Vittal SriNavya
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Patient NAME	
DOB/Age/Gender	Report STATUS
Patient ID / UHID	Barcode NO
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Sample Collected	Report Date

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

Magnesium

Magnesium,Serum *Enzymatic*	2.15	mg/dL	1.6 - 2.6

Interpretation:

Age	Ref Range in mg/dL
Newborn, 2 to 4 days	1.5 to 2.2
5 months to 6 years	1.7 to 2.3
6 to 12 years	1.7 to 2.1
12 to 20 years	1.7 to 2.2
Adult	1.6 to 2.6

Moderate or severe magnesium deficiency is usually due to losses of magnesium from gastrointestinal tract or kidneys as in vomiting and diarrhoea in former and alcohol, diabetes mellitus (osmotic diuresis), loop diuretics(furosemide) and aminoglycoside antibiotics in latter. Symptomatic hypermagnesemia is almost always caused by excessive intake with concomitant renal failure, thereby decreasing the ability of the kidneys to excrete excess magnesium.

Carcinoembryonic Antigen (CEA)

CEA; CARCINO EMBRYONIC ANTIGEN, SERUM *CMIA*	**3.8 H***	ng/mL	<3.0

Result rechecked. Please correlate clinically

High levels of CEA can be seen in other conditions :

- Breast cysts
- Chronic obstructive pulmonary disease, which is a breathing disorder
- Mucinous cystadenoma of the ovary or appendix
- Infections such as cholecystitis and diverticulitis
- Inflammatory bowel disease, which causes diarrhea, pain, weight loss
- Liver disease
- Lung problems
- Ulcers
- Pancreatitis

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

TO BE CORRELATED CLINICALLY OR REPEAT WITH FRESH SAMPLE IF REQUIRED

Interpretation:

REFERENCE GROUP	REFERENCE RANGE IN ng/mL
Non Smokers	<3.0
Smokers	<5.0

Note :
1. This test is not recommended for cancer screening in the general population.
2. False negative / positive results are observed in patients receiving mouse monoclonal antibodies for diagnosis or therapy.
3. Patients with confirmed carcinoma may show normal pre-treatment CEA levels. Hence this assay, regardless of level, should not be interpreted as absolute evidence for presence or absence of malignant disease. The assay value should be used in conjunction with findings from clinical evaluation and other diagnostic procedures.
4. Persistently elevated CEA levels are usually indicative of progressive malignant disease and poor therapeutic response.

Clinical Use
1. Monitoring patients with Colorectal, Gastrointestinal, Lung & Breast carcinoma
2. Diagnosis of occult metastatic disease and / or residual disease

CA 19.9 (Pancreatic Cancer Marker)

CA 19.9 ;PANCREATIC CANCER MARKER, SERUM *CMIA*	5.15	U/mL	<37

Interpretation:
Note
1. This test is not recommended to screen Pancreatic cancer in the general population.
2. False negative/positive results are observed in patients receiving mouse monoclonal antibodies for diagnosis or therapy
3. This assay, regardless of level, should not be interpreted as absolute evidence for the presence or absence of malignant disease. The assay value should be used in conjunction with findings from clinical evaluation and other diagnostic procedures.
4. Persistently elevated CA 19-9 levels are usually indicative of progressive malignant disease and poor therapeutic response.

Clinical Use
· An aid in the management of Pancreatic cancer patients
· Monitor the course of disease and predict recurrence in patients with Pancreatic carcinoma

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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 IgE (IgE Total), Serum			
IMMUNOGLOBULIN IgE TOTAL SERUM *ECLIA*	27.7	IU/mL	0 - 100

Interpretaion:
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.

Dr. Vittal SriNavya
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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
Homocysteine			
Homocysteine *CLIA*	**31.9 H***	umol/L	5.0-20

Interpretation:

Homocysteine is a sulphur containing amino acid. There is an association between elevated levels of circulating homocysteine and various vascular and cardiovascular disorders. Clinically the measurement of homocysteine is considered important to diagnose homocystinuria, to identify individuals with or at risk of developing cobalamin or folate deficiency & to assess risk factor for Cardiovascular Disease (CVD) for which the recommendations are:

1. Specially useful in young CVD patients (< 40 yrs.)
2. In known cases of CVD, high homocysteine levels should be used as a prognostic marker for CVD events and mortality
3. CVD patients with homocysteine levels >15 µmol/L belong to a high risk group?

Increased homocysteine levels with low vitamin concentrations should be handled as a potential vitam in deficiency case.

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

Dr. Vittal SriNavya
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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 *	10	ml	-
Colour *	Pale yellow	-	Pale yellow
Transparency *	Clear	-	Clear
Deposit *	Absent	-	Absent
Chemical Examination *			
Reaction (pH) *Double Indicator*	6.0	-	4.5 - 8.0
Specific Gravity *Ion Exchange*	1.020	-	1.010 - 1.030
Urine Glucose (sugar) *Oxidase / Peroxidase*	**Positive(++) H***	-	Negative
Urine Protein (Albumin) *Acid / Base Colour Excahnge*	Negative	-	Negative
Urine Ketones (Acetone) *Legals Test*	Negative	-	Negative
Blood *Peroxidase Hemoglobin*	Negative	-	Negative
Leucocyte esterase *Enzymatic Reaction*	Negative	-	Negative
Bilirubin Urine *Coupling Reaction*	Negative	-	Negative
Nitrite *Griless Test*	Negative	-	Negative
Urobilinogen *Ehrlichs Test*	Normal	-	Normal
Microscopic Examination *			
Pus Cells (WBCs) *	2-3	/hpf	0 - 5
Epithelial Cells *	1-2	/hpf	0 - 4
Red blood Cells *	Absent	/hpf	Absent
Crystals *	Absent	-	Absent
Cast *	Absent	-	Absent
Yeast Cells *	Absent	-	Absent
Amorphous deposits *	Absent	-	Absent
Bacteria *	Absent	-	Absent
Protozoa *	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

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

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

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. Vittal SriNavya
MBBS MD(Pathology)

LABORATORY REPORT

Redcliffe labs

Bio-Rad CDM System

PATIENT REPORT

Patient Data

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

Comments:

Analysis Data

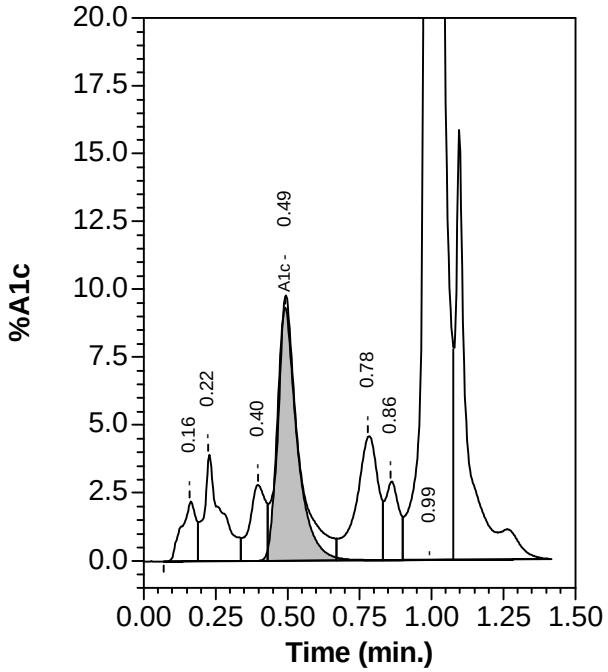
Analysis Performed:
Injection Number:
Run Number:
Rack ID:
Tube Number:
Report Generated:
Operator ID:

Peak Name	NGSP %	Area %	Retention Time (min)	Peak Area
A1a	---	1.3	0.160	23432
A1b	---	2.8	0.224	49759
LA1c	---	1.7	0.397	29935
A1c	9.3*	---	0.490	139232
P3	---	4.2	0.780	73886
P4	---	1.7	0.858	29272
Ao	---	80.4	0.994	1419804

*Values outside of expected ranges

Total Area: 1,765,320

HbA1c (NGSP) = 9.3* %



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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.

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