Redcliffe labs

Healthy India Ki Trusted Lab

smart Health Report

An Insightful Health Analytics Report for Easier Understanding

Prepared For

www.redcliffelabs.com

Name

Gender

Patient ID
15482924

Age
52

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. **Personalized Health Advisory**
   Actionable insights and expert guidance tailored just for you
5. **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.

SMART HEALTH REPORT

ISO 9001 :2015

Redcliffe labs

Name

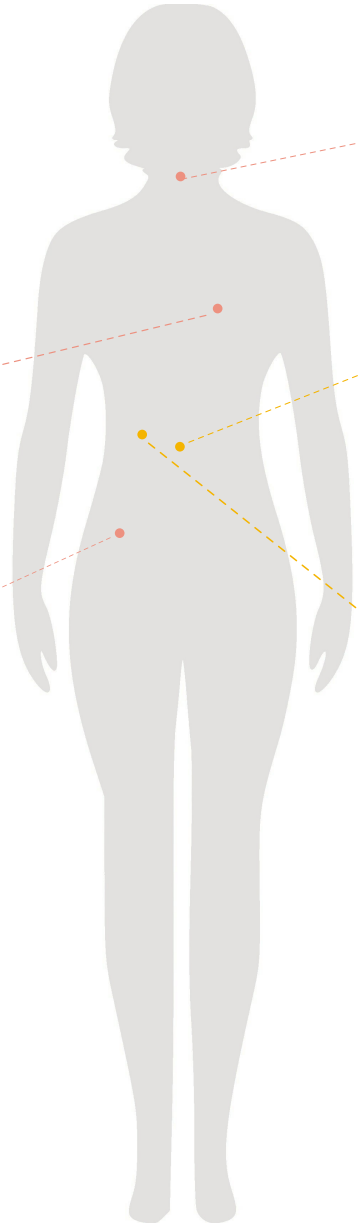
Gender

Patient ID

Age

All In Range Borderline Out Of Range

Health Summary



THYROID PROFILE

Test Name	Result
TSH	11.1
Please Watchout	

CARDIAC PROFILE

Test Name	Resu
HIGHLY SENSITIVE C-REACTIVE PROTEIN (hs-CRP)	17.
Non HDL Cholesterol	138
LDL Cholesterol	11
+ 1 tests Please Watchout	

DIABETES MONITORING

Test Name	Result
HbA1c (Glycosylated Haemoglobin)	6.2
Blood Sugar (Fasting)	110
Please Watchout	

KIDNEY PROFILE

Test Name	Result
Blood Urea	15.5
Bun	7.24
Bun/Creatinine Ratio	9.05
+ 1 tests Please Watchout	

LIVER PROFILE

Test Name	Result
GGT	37.3
Please Watchout	

ELECTROLYTES

Test Name	Result
Phosphorus	5.1
Sodium	146.4
Potassium	5.4
Please Watchout	

ANEMIA STUDIES

Test Name	Result
Haematocrit	35.8
MCV	80
MCH	24.6
+ 1 tests Please Watchout	

VITAMIN PROFILE

Test Name	Result
Vitamin D 25 - Hydroxy	22.6
Please Watchout	

Name

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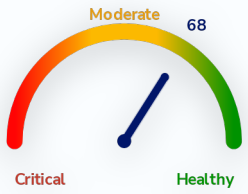
Quick Health Summary

Personal Insights - Health Score

68

Overall, most parameters are within normal ranges, indicating a generally good state of health. The Thyroid and Diabetes profiles may affect energy levels and metabolic function, so consider maintaining a balanced diet and regular exercise. Incorporate a variety of fruits, vegetables, and whole grains into your meals, and consider activities like walking or yoga. Routine check-ups can help monitor your health, and please consult a healthcare professional if you notice any changes. Small, consistent lifestyle adjustments 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
100	15	8

Health Status by Body System

Profile	Total	Borderline	Out of Range	Key Results
Kidney Profile	10	1	3	Blood Urea Nitrogen (BUN) **(7.24)** BUN : Creatinine ratio **(9.05)** Urea : Creatinine ratio **(19.38)**
Inflammation	2	0	2	ESR **(19)** CRP **(21.3)**
Cardiac Profile	10	3	1	HsCRP **(17.5)** Non - HDL Cholesterol **(138.4)** LDL Cholesterol **(111)**
Vitamin Profile	2	0	1	Vitamin D (25-Hydroxy) **(22.6)**
Thyroid Profile	3	0	1	TSH **(11.1)**
Iron	4	0	0	All In Range
Metabolic	1	0	0	All In Range
Cancer Profile	1	0	0	All In Range
Allergy Panel	1	0	0	All In Range
Blood Disorder	17	1	0	Haemoglobin **(11)**

Profile	Total	Borderline	Out of Range	Key Results
Anemia Studies	8	4	0	Haematocrit **(35.8)** MCV **(80)** MCH **(24.6)**
Infectious Diseases	6	0	0	**All In Range**
Diabetes Monitoring	4	2	0	HbA1c (Glycosylated Haemoglobin) **(6.2)** Blood Sugar (Fasting) **(110)**
Liver Profile	15	1	0	GGT **(37.3)**
Urinalysis	12	0	0	**All In Range**
Electrolytes	4	3	0	Phosphorus **(5.1)** Sodium **(146.4)** Potassium **(5.4)**

ISO 9001 :2015

SMART HEALTH REPORT

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Report Summary

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

INFLAMMATION

Test Name	Result unit	Range
ESR - Erythrocyte Sedimentation Rate	**19** mm/hr	< 12
CRP (Quantitative)	**21.3** mg/L	< 5

IRON

Test Name	Result unit	Range
Iron	63.7 µg/dL	50 - 170
TIBC,(Total Iron Binding Capacity)	344.7 µg/dL	250 - 450
UIBC	281 µg/dL	70 - 310
Transferrin Saturation	18.48 %	14 - 50

CARDIAC PROFILE

Test Name	Result unit	Range
HIGHLY SENSITIVE C-REACTIVE PROTEIN (hs-CRP)	**17.5** mg/L	< 1
Total Cholesterol	190 mg/dL	< 200
Triglycerides	137 mg/dL	< 150
HDL Cholesterol	51.6 mg/dL	40 - 80
Non HDL Cholesterol	**138.4** mg/dL	< 130
LDL Cholesterol	**111** mg/dL	30 - 100
V.L.D.L Cholesterol	27.4 mg/dL	< 30
Chol/HDL Ratio	3.68 Ratio	3.5 - 5
HDL/ LDL Ratio	**0.46** Ratio	0.5 - 3
LDL/HDL Ratio	2.15 Ratio	

METABOLIC

Test Name	Result unit	Range
RHEUMATOID FACTOR, Quantitative	7.4 IU/mL	< 14

Name

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Report Summary

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

VITAMIN PROFILE

Test Name	Result unit	Range
Vitamin - B12	391 pg/mL	187 - 883
Vitamin D 25 - Hydroxy	**22.6** ng/mL	30 - 100

THYROID PROFILE

Test Name	Result unit	Range
Triiodothyronine (T3)	89.2 ng/dL	80 - 200
Total Thyroxine (T4)	8.03 µg/dL	4.5 - 11.7
Thyroid Stimulating Hormone (Ultrasensitive)	**11.1** mIU/L	0.35 - 4.94

CANCER PROFILE

Test Name	Result unit	Range
CA 125 OVARIAN CANCER MARKER, SERUM	8.6 U/mL	< 35

ALLERGY PANEL

Test Name	Result unit	Range
IMMUNOGLOBULIN IgE TOTAL SERUM	1.3 IU/mL	< 100

Name

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BLOOD DISORDER

Test Name	Result unit	Range
Hemoglobin	**11** g/dL	12 - 15
TLC	6.71 10^3/µl	4 - 10
Neutrophils	65.2 %	40 - 80
Lymphocytes	30.3 %	20 - 40
Monocytes	3.4 %	2 - 10
Eosinophils	1 %	1 - 6
Basophils	0.1 %	< 2
Neutrophils.	4.37 cells/µL	
Lymphocytes.	2.03 cells/µL	
Monocytes.	0.23 cells/µL	
Eosinophils.	0.07 cells/µL	
Basophils.	0.01 cells/mL	
Platelet Count	328 10^3/µl	150 - 410
Mean Platelet Volume (MPV)	9.6 fL	9.3 - 12.1
PDW	11.1 fL	8.3 - 25
P-LCR	27.1 %	18 - 50
P-LCC	89 10^9/L	44 - 140

ANEMIA STUDIES

Test Name	Result unit	Range
RBC Count	4.48 10^6/µl	3.8 - 4.8
PCV	**35.8** %	36 - 46
MCV	**80** fl	83 - 101
MCH	**24.6** pg	27 - 32
MCHC	**30.7** g/dL	31.5 - 34.5
RDW (CV)	13.7 %	11.6 - 14
RDW-SD	38.4 fl	35.1 - 43.9
Mentzer Index	17.86	

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INFECTIOUS DISEASES

Test Name	Result unit	Range
PCT	0.3 %	0.17 - 0.32
Deposit	Absent	
Leucocyte esterase	Negative	
Pus Cells (WBCs)	3-4 /hpf	
Yeast Cells	Absent	
Protozoa	Absent	

DIABETES MONITORING

Test Name	Result unit	Range
Glycosylated Hemoglobin (HbA1c)	**6.2** %	< 5.7
Estimated Average Glucose	131.24 mg/dL	
Glucose Fasting	**110** mg/dL	70 - 100
Urine Glucose (sugar)	Negative	

LIVER PROFILE

Test Name	Result unit	Range
Bilirubin Total	0.34 mg/dL	< 1.2
Bilirubin Direct	0.2 mg/dL	< 0.5
Bilirubin Indirect	0.14 mg/dL	< 1
SGOT/AST	31.4 U/L	< 35
SGPT/ALT	28.9 U/L	< 35
SGOT/SGPT Ratio	1.09 %	
Alkaline Phosphatase	81.8 U/L	35 - 104
Total Protein	6.8 g/dL	6.4 - 8.3
Albumin	4.3 g/d	3.5 - 5.2
Globulin	2.5 g/dL	2.3 - 3.5
Albumin :Globulin Ratio	1.72	< 2.1
Gamma Glutamyl Transferase (GGT)	**37.3** U/L	< 36
Calcium Serum	9.5 mg/dL	8.4 - 10.2
Bilirubin Urine	Negative	
Urobilinogen	Normal	

Name

Gender

Patient ID

Age

Report Summary

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

KIDNEY PROFILE

Test Name	Result unit	Range
Blood Urea	**15.5** mg/dL	18 - 55
Bun	**7.24** mg/dL	9.8 - 20.1
Creatinine	0.8 mg/dl	0.5 - 0.9
eGFR (CKD-EPI)	88.58 ml/min/1.73 sq m	
Bun/Creatinine Ratio	**9.05**	12 - 20
Urea / Creatinine Ratio	**19.38**	25.68 - 42.8
Urine Protein (Albumin)	Negative	
Blood	Negative	
Crystals	Absent	
Cast	Absent	

URINALYSIS

Test Name	Result unit	Range
Uric Acid	3.9 mg/dL	2.4 - 5.7
Volume	20 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	2-3 /hpf	
Red blood Cells	Absent /hpf	
Amorphous deposits	Absent	
Bacteria	Absent	

ELECTROLYTE PROFILE

Test Name	Result unit	Range
Phosphorus	**5.1** mg/dL	2.3 - 4.7
Sodium	**146.4** mmol/L	136 - 145
Potassium	**5.4** mmol/L	3.5 - 5.1
Chloride	100.7 mmol/L	98 - 107

Name

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Health Advisory

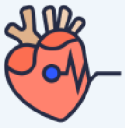
In Range Borderline (BL) Out Of Range

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: 19 mm/hr — OUT OF RANGE

CRP (Quantitative): 21.3 mg/L — OUT OF RANGE

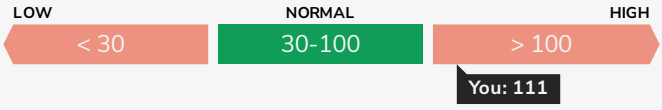


Cardiac Profile

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): 17.5 mg/L — OUT OF RANGE

LDL Cholesterol: 111 mg/dL — BORDERLINE

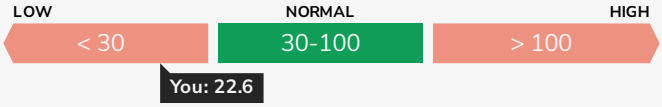


Vitamins Profile

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 D 25 - Hydroxy: 22.6 ng/mL

OUT OF RANGE

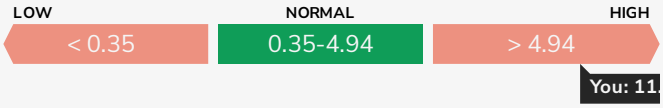


Thyroid

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

Thyroid Stimulating Hormone (Ultrasensitive): 11.1 mIU/L

OUT OF RANGE

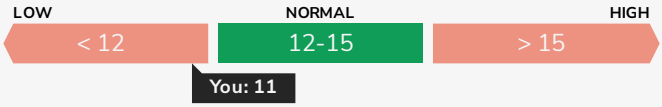


Blood Disorder

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: 11 g/dL

BORDERLINE

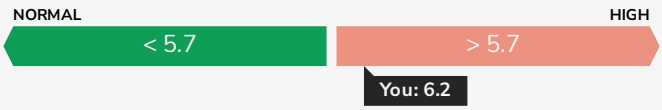


Diabetes

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

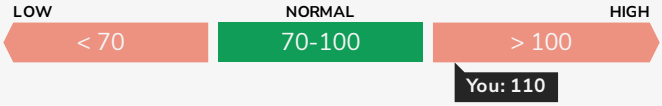
Glycosylated Hemoglobin (HbA1c): 6.2 %

BORDERLINE



Glucose Fasting: 110 mg/dL

● BORDERLINE

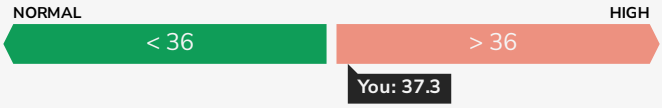


Liver Profile

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

Gamma Glutamyl Transferase (GGT): 37.3 U/L

● BORDERLINE

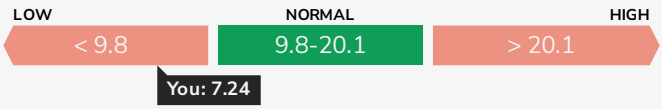


Kidney Profile

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: 7.24 mg/dL

● OUT OF 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	:

Senior Citizen Full Body Check Up- Female (Advance)

Complete Blood Count (CBC)

Test Description	Value(s)	Unit(s)	Reference Range
RBC Parameters			
Hemoglobin *colorimetric*	**11 L***	g/dL	12.0 - 15.0
RBC Count *Electrical impedance*	4.48	10^6/µl	3.8 - 4.8
PCV *Calculated*	**35.8 L***	%	36 - 46
MCV *Calculated*	**80 L***	fl	83 - 101
MCH *Calculated*	**24.6 L***	pg	27 - 32
MCHC *Calculated*	**30.7 L***	g/dL	31.5 - 34.5
RDW (CV) * *Calculated*	13.7	%	11.6 - 14.0
RDW-SD * *Calculated*	38.4	fl	35.1 - 43.9
WBC Parameters			
TLC *Electrical impedance and microscopy*	6.71	10^3/µl	4 - 10
Differential Leucocyte Count			
Neutrophils	65.2	%	40-80
Lymphocytes	30.3	%	20-40
Monocytes	3.4	%	2-10
Eosinophils	1	%	1-6
Basophils	0.1	%	<2
Absolute Leukocyte Counts			
Neutrophils.	4.37		
Lymphocytes.	2.03		
Monocytes.	0.23		
Eosinophils.	0.07		
Basophils.	0.01		
Platelet Parameters			
Platelet Count *Electrical impedance and microscopy*	328	10^3/µl	150 - 410
Mean Platelet Volume (MPV) * *Calculated*	9.6	fL	9.3 - 12.1
PCT * *Calculated*	0.3	%	0.17 - 0.32

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

(*) Parameter(s) are outside the scope of tests recognized under the NABL M(EL)T Scheme.

Dr. Vittal SriNavya
MBBS MD(Pathology)

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*	11.1	fL	8.3 - 25.0
P-LCR * *Calculated*	27.1	%	18 - 50
P-LCC * *Calculated*	89	10^9/L	44 - 140
Mentzer Index *	17.86		

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*	**19 H***	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

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	
Referred BY		Sample Type	
Sample Collected		Report Date	

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

HbA1C (Glycosylated Haemoglobin)

Glycosylated Hemoglobin (HbA1c) *HPLC*	**6.2 H***	%	<5.7
Estimated Average Glucose *	131.24	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	
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

Glucose Fasting

Glucose Fasting *Hexokinase*	**110 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.

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MBBS MD(Pathology)

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
Liver Function Test (LFT)			
Bilirubin Total *Photometric*	0.34	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)*	0.14	mg/dL	0.1 - 1.0
SGOT/AST *IFCC with P5P*	31.4	U/L	0 - 35
SGPT/ALT *IFCC with P5P*	28.9	U/L	0 - 35
SGOT/SGPT Ratio *	1.09	-	-
Alkaline Phosphatase	81.8	U/L	35-104
Total Protein *Biuret*	6.8	g/dL	6.4 - 8.3
Albumin *Bromocresol Green*	4.3	g/d	3.5 - 5.2
Globulin * *Calculation (T.P - Albumin)*	2.5	g/dL	2.3 - 3.5
Albumin :Globulin Ratio * *Calculation (Albumin/Globulin)*	1.72	-	1.0 - 2.1
Gamma Glutamyl Transferase (GGT) * *Enzymatic Colorimetry*	**37.3 H***	U/L	5 - 36

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

Key enzymes tested:

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

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

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

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 :	

Kidney Function Test (KFT)

Test Description	Value(s)	Unit(s)	Reference Range
Blood Urea *Urease*	**15.5 L***	mg/dL	18 - 55
Bun * *Urease*	**7.24 L***	mg/dL	9.8 - 20.1
Creatinine *Jaffe Kinetic*	0.8	mg/dl	0.50 - 0.90
eGFR (CKD-EPI)	88.58	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*	**9.05 L***		12 - 20
Urea / Creatinine Ratio * *Calculated*	**19.38 L***		25.68- 42.8
Uric Acid *Uricase*	3.9	mg/dL	2.4 - 5.7
Calcium Serum *Arsenazo III*	9.5	mg/dL	8.4 - 10.2
Phosphorus *Photometric*	**5.1 H***	mg/dL	2.3 - 4.7
Sodium *Potentiometric*	**146.4 H***	mmol/L	136 - 145
Potassium *Potentiometric*	**5.4 H***	mmol/L	3.5 - 5.1
Chloride *Potentiometric*	100.7	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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Test Description	Value(s)	Unit(s)	Reference Range
Lipid Profile			
Total Cholesterol *Enzymatic - Cholesterol Oxidase*	190	mg/dL	<200
Triglycerides *Colorimetric - Lip/Glycerol Kinase*	137	mg/dL	<150
HDL Cholesterol *Accelerator Selective Detergent*	51.6	mg/dL	>40
Non HDL Cholesterol * *Calculated*	**138.4 H***	mg/dL	<130
LDL Cholesterol * *Calculated*	**111 H***	mg/dL	<100
V.L.D.L Cholesterol * *Calculated*	27.4	mg/dL	< 30
Chol/HDL Ratio * *Calculated*	3.68	Ratio	3.5 - 5.0
HDL/ LDL Ratio * *Calculated*	**0.46 L***	Ratio	0.5 - 3.0
LDL/HDL Ratio * *Calculated*	2.15	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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Sample Collected	:	Report Date	:

Iron Studies

Test Description	Value(s)	Unit(s)	Reference Range
Iron *Ferene*	63.7	µg/dL	50 - 170
TIBC,(Total Iron Binding Capacity) *Calculated*	344.7	µg/dL	250 - 450
UIBC *Ferene*	281	µg/dL	70 - 310
Transferrin Saturation *Method :Derived from IRON and TIBC values*	18.48	%	-

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

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

C-Reactive Protein (CRP), Quantitative

CRP (Quantitative) *Immunoturbidimetry*	**21.3 H***	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.

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

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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

High Sensitivity C-Reactive Protein (Hs-CRP)

HIGHLY SENSITIVE C-REACTIVE PROTEIN (hs-CRP) *immunoturbidimetric*	**17.5 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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Test Description	Value(s)	Unit(s)	Reference Range

Rheumatoid Factor (RF), Quantitative

RHEUMATOID FACTOR, Quantitative *Immunoturbidimetry*	7.4	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*	391	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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Test Description	Value(s)	Unit(s)	Reference Range

Vitamin D 25 Hydroxy

Vitamin D 25 - Hydroxy *ECLIA*	**22.6 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)

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Patient NAME	
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Test Description	Value(s)	Unit(s)	Reference Range
Thyroid Profile Total			
Triiodothyronine (T3) *ECLIA*	89.2	ng/dL	80 - 200
Total Thyroxine (T4) *ECLIA*	8.03	µg/dL	4.5 - 11.7
Thyroid Stimulating Hormone (Ultrasensitive) *CMIA*	**11.1 H***	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)

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

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Patient NAME	:		
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Sample Collected	:	Report Date	

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

CA 125 (Ovarian Cancer Marker)

CA 125 OVARIAN CANCER MARKER, SERUM *CMIA*	8.6	U/mL	<35

Interpretation:
CA 125 is a surface antigen, identified as a 200 - 1000 kDa mucin-like glycoprotein associated with non-mucinous epithelial ovarian malignancy. CA 125 is a useful tumor marker for evaluating therapy and monitoring disease status
in patients under treatment for ovarian cancer. Measured serially the levels of CA 125 correspond with disease progression or regression. The rate of change in CA 125 is also highly prognostic. As a diagnostic tool however, the level of CA 125 alone is not sufficient to determine the presence of extent of disease. Levels of CA 125 should not be interpreted as absolute evidence of the presence or the absence of malignant disease. Before treatment, patients
with confirmed ovarian carcinorma frequently have levels of CA 125 within the range observed in healthy regarding the histological grade or diameter of the tumor mass.

Elevated levels of CA 125 can be observed in patients with nonmalignant diseases. Patients with certain benign conditions, such as hepatic cirrhosis, acute pancreatitis, endometriosis, pelvic inflammatory disease, menstruation and first trimester pregnancy show elevated levels of CA 125. Elevated levels are also found in 1 to 2 % of healthy donors.
Measurements of CA 125 sholud always be used in conjunction with other diagnostic procedures, including information from the patients clinical evaluation. The concentration of CA 125 in a given specimen determined with assays from different manufacturers can vary due to differences in assay methods, calibration, and reagent specificity. Values obtained with different assay methods cannot be used interchangeably. Heterophilic antibodies in human serum can react with reagent immunoglobulins, interfering with in vitro immunoassays. Patients routinely exposed to animal or to animal serum products can be prone to this interference and anomalous values may be observed

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Patient NAME	
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Immunoglobulin E (IgE Total)

Test Description	Value(s)	Unit(s)	Reference Range
IMMUNOGLOBULIN IgE TOTAL SERUM *ECLIA*	1.3	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.

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Urine Routine and Microscopic Examination

Test Description	Value(s)	Unit(s)	Reference Range
Physical Examination *			
Volume *	20	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*	1.015	-	1.010 - 1.030
Urine Glucose (sugar) *Oxidase / Peroxidase*	Negative	-	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) *	3-4	/hpf	0 - 5
Epithelial Cells *	2-3	/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

(*) Parameter(s) are outside the scope of tests recognized under the NABL M(EL)T Scheme.

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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 ***

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LABORATORY REPORT

Redcliffe labs

Patient Data

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

Comments:

Analysis Data

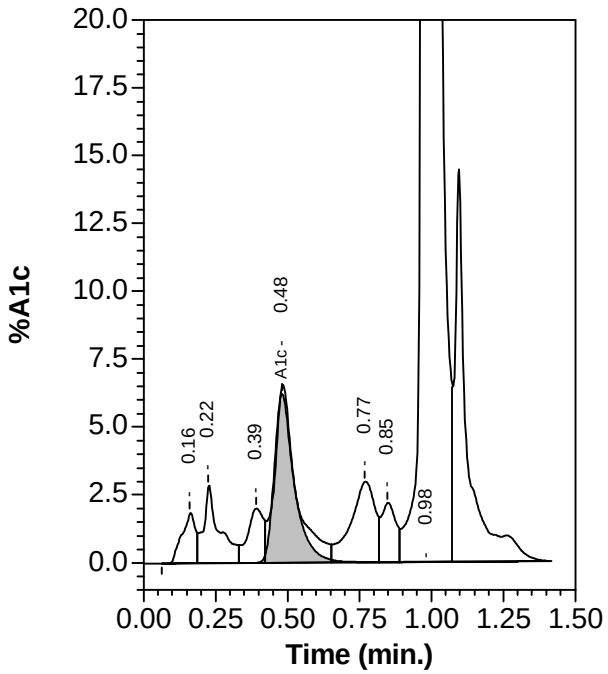
Analysis Performed:
Injection Number:
Run Number:
Rack ID:
Tube Number:
Report Generated:
Operator ID:

Peak Name	NGSP %	Area %	Retention Time (min)	Peak Area
A1a	---	1.1	0.159	21751
A1b	---	2.0	0.222	39909
LA1c	---	1.2	0.390	25207
A1c	6.2*	---	0.480	108922
P3	---	3.1	0.769	62785
P4	---	1.4	0.846	27503
Ao	---	85.9	0.983	1749732

*Values outside of expected ranges

Total Area: 2,035,810

HbA1c (NGSP) = 6.2* %



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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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