

smart Health Report

An Insightful Health Analytics Report
for Easier Understanding

Prepared For



Name

Gender

Patient ID

Age

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.

Name

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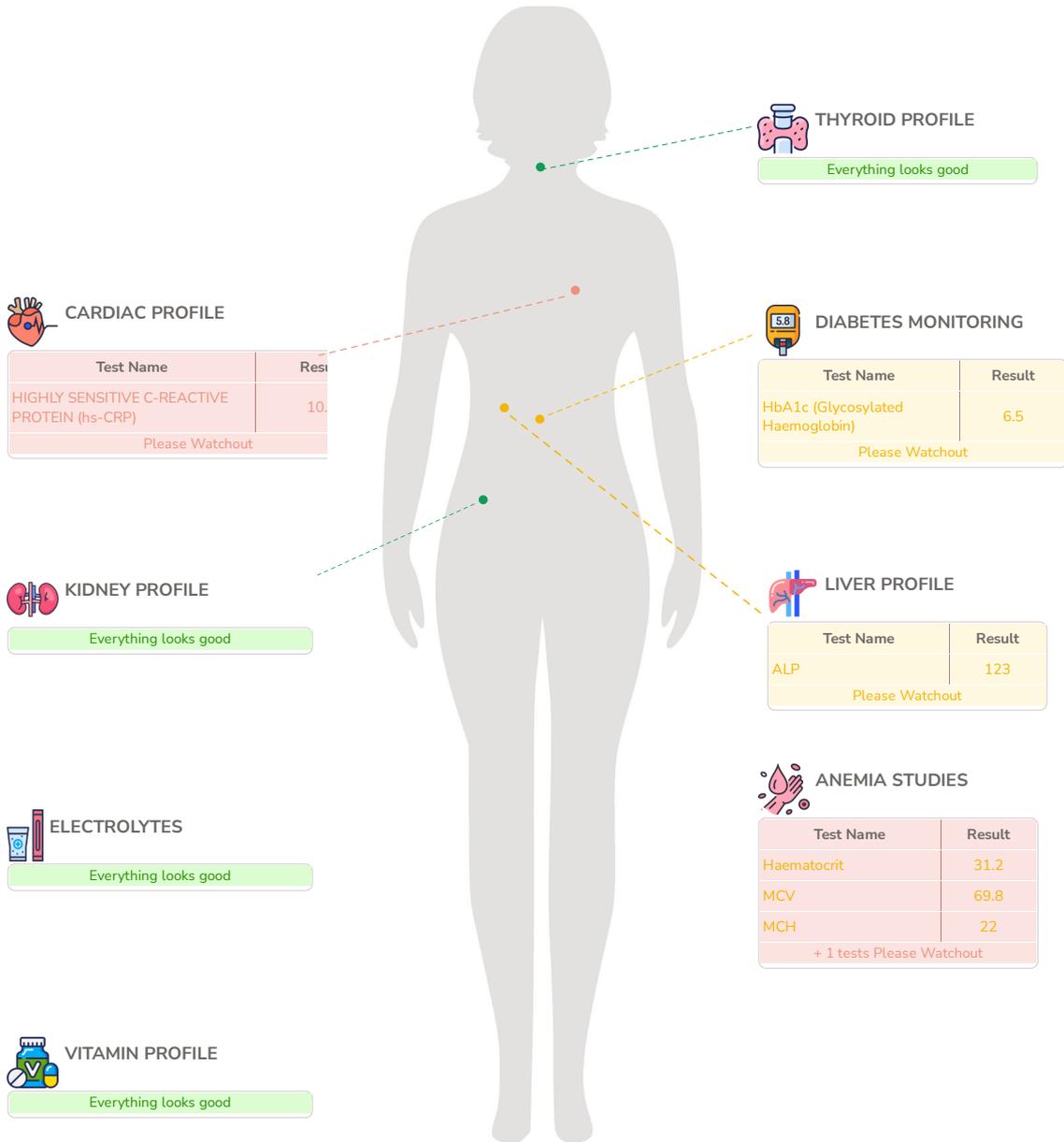
Age

● All In Range

● Borderline

● Out Of Range

Health Summary



Name Gender

Patient ID Age

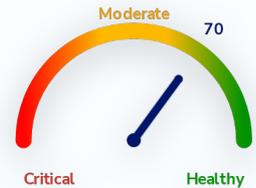
Quick Health Summary

Personal Insights - Health Score

70

The overall health profile indicates good status in areas like allergy, liver, kidney, electrolytes, vitamins, minerals, and thyroid, which are reassuring. However, notable concerns include anemia, inflammation, and iron levels, which may require lifestyle adjustments and monitoring. Maintaining a balanced diet, regular exercise, and follow-up testing can help improve these parameters and reduce future health risks.

Note - Higher scores tentatively indicate better health status



Summary of Key Health Indicators

Total Parameters Tested	Borderline Results	Out Of Range Results
100	10	8

Health Status by Body System

Profile	Total	Borderline	Out of Range	Key Results
Iron	4	1	3	<ul style="list-style-type: none"> Iron (32) UIBC (428) % Saturation Transferrin (6.96)
Blood Disorder	17	3	1	<ul style="list-style-type: none"> P-LCC (201) Haemoglobin (9.8) Abs. Lymphocyte Count (3.01)
Anemia Studies	9	3	1	<ul style="list-style-type: none"> RDW-CV (18.2) Haematocrit (31.2) MCV (69.8)
Infectious Diseases	6	0	1	<ul style="list-style-type: none"> PCT (0.5)
Inflammation	2	1	1	<ul style="list-style-type: none"> CRP (22.5) ESR (22)
Cardiac Profile	10	0	1	<ul style="list-style-type: none"> HsCRP (10.5)
Diabetes Monitoring	4	1	0	<ul style="list-style-type: none"> HbA1c (Glycosylated Haemoglobin) (6.5)
Liver Profile	15	1	0	<ul style="list-style-type: none"> ALP (123)

Profile	Total	Borderline	Out of Range	Key Results
Kidney Profile	10	0	0	All In Range
Urinalysis	12	0	0	All In Range
Electrolytes	4	0	0	All In Range
Metabolic	1	0	0	All In Range
Vitamin Profile	2	0	0	All In Range
Thyroid Profile	3	0	0	All In Range
Allergy Panel	1	0	0	All In Range

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Report Summary

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

BLOOD DISORDER

Test Name	Result unit	Range
● Hemoglobin	9.8 g/dL	12 - 15
● TLC	9.9 $10^3/\mu\text{l}$	4 - 10
● Neutrophils	58.7 %	40 - 80
● Lymphocytes	30.4 %	20 - 40
● Monocytes	7.2 %	2 - 10
● Eosinophils	3.4 %	1 - 6
● Basophils	0.3 %	< 2
● Neutrophils.	5.81 $10^3/\mu\text{l}$	2 - 7
● Lymphocytes.	3.01 $10^3/\mu\text{l}$	1 - 3
● Monocytes.	0.71 $10^3/\mu\text{l}$	0.2 - 1
● Eosinophils.	0.34 $10^3/\mu\text{l}$	0.02 - 0.5
● Basophils.	0.03 $10^3/\mu\text{l}$	< 0.1
● Platelet Count	452 $10^3/\mu\text{l}$	150 - 410
● Mean Platelet Volume (MPV)	11.8 fL	9.3 - 12.1
● PDW	18.8 fL	8.3 - 25
● P-LCR	44.5 %	18 - 50
● P-LCC	201 $10^9/L$	44 - 140

ANEMIA STUDIES

Test Name	Result unit	Range
● RBC Count	4.5 $10^6/\mu\text{l}$	3.8 - 4.8
● PCV	31.2 %	36 - 46
● MCV	69.8 fl	83 - 101
● MCH	22 pg	27 - 32
● MCHC	31.5 g/dL	31.5 - 34.5
● RDW (CV)	18.2 %	11.6 - 14
● RDW-SD	40.3 fl	35.1 - 43.9
● Mentzer Index	15.51 %	
● Ferritin	8.3 ng/mL	4.63 - 204

Name Gender

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Report Summary ● In Range ● Borderline ● Out Of Range ● No color - Reference range not available

INFECTIOUS DISEASES

Test Name	Result <small>unit</small>	Range
● PCT	0.5 %	0.17 - 0.32
Deposit	Absent	
Leucocyte esterase	Negative	
Pus Cells (WBCs)	2-3 /hpf	
Yeast Cells	Absent	
Protozoa	Absent	

INFLAMMATION

Test Name	Result <small>unit</small>	Range
● ESR - Erythrocyte Sedimentation Rate	22 mm/hr	< 20
● CRP (Quantitative)	22.5 mg/L	< 5

DIABETES MONITORING

Test Name	Result <small>unit</small>	Range
● Glycosylated Hemoglobin (HbA1c)	6.5 %	< 5.7
Estimated Average Glucose	139.85 mg/dL	
● Glucose Fasting	95 mg/dL	70 - 100
Urine Glucose (sugar)	Negative	

Name Gender

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Report Summary ● In Range ● Borderline ● Out Of Range ● No color - Reference range not available

LIVER PROFILE		
Test Name	Result <small>unit</small>	Range
● Bilirubin Total	0.3 mg/dL	< 1.2
● Bilirubin Direct	0.1 mg/dL	< 0.5
● Bilirubin Indirect	0.2 mg/dL	< 1
● SGOT/AST	18 U/L	11 - 34
● SGPT/ALT	13 U/L	< 34
SGOT/SGPT Ratio	1.38 Ratio	
● Alkaline Phosphatase	123 U/L	46 - 122
● Total Protein	7.5 g/dL	6.4 - 8.3
● Albumin	4.4 g/dL	3.2 - 4.6
● Globulin	3.1 g/dL	2.3 - 3.5
● Albumin :Globulin Ratio	1.42 Ratio	< 2.1
● Gamma Glutamyl Transferase (GGT)	22 U/L	< 38
● Calcium Serum	9 mg/dL	8.4 - 10.2
Bilirubin Urine	Negative	
Urobilinogen	Normal	

KIDNEY PROFILE		
Test Name	Result <small>unit</small>	Range
● Blood Urea	24 mg/dL	21 - 43
● Bun	11.21 mg/dL	8 - 23
● Creatinine	0.8 mg/dL	0.5 - 1.2
eGFR (CKD-EPI)	84.28 mL/min/1.73 sq m	
● Bun/Creatinine Ratio	14.01	12 - 20
Urea / Creatinine Ratio	30	
Urine Protein (Albumin)	Negative	
Blood	Negative	
Crystals	Absent	
Cast	Absent	

Name Gender

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Report Summary ● In Range ● Borderline ● Out Of Range ● No color - Reference range not available

URINALYSIS

Test Name	Result unit	Range
● Uric Acid	6 mg/dL	2.5 - 6.2
Volume	20 mL	
Colour	Pale yellow	
Transparency	Clear	
● Reaction (pH)	5.0	4.5 - 8
● Specific Gravity	1.010	1.01 - 1.03
Urine Ketones (Acetone)	Negative	
Nitrite	Negative	
Epithelial Cells	1-2 /hpf	
Red blood Cells	Absent /hpf	
Amorphous deposits	Absent	
Bacteria	Absent	

ELECTROLYTE PROFILE

Test Name	Result unit	Range
● Phosphorus	3.2 mg/dL	2.3 - 4.7
● Sodium	136 mmol/L	136 - 145
● Potassium	4.9 mmol/L	3.5 - 5.1
● Chloride	102 mmol/L	98 - 107

CARDIAC PROFILE

Test Name	Result unit	Range
● Total Cholesterol	165 mg/dL	< 200
● Triglycerides	97 mg/dL	< 150
● HDL Cholesterol	52 mg/dL	40 - 80
● Non HDL Cholesterol	113 mg/dL	< 130
● LDL Cholesterol	93.6 mg/dL	< 100
● V.L.D.L Cholesterol	19.4 mg/dL	< 30
Cho/HDL Ratio	3.17 Ratio	
HDL/ LDL Ratio	0.56 Ratio	
LDL/HDL Ratio	1.8 Ratio	
● HIGHLY SENSITIVE C-REACTIVE PROTEIN (hs-CRP)	10.5 mg/L	< 1

Name Gender

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Report Summary ● In Range ● Borderline ● Out Of Range ● No color - Reference range not available

IRON			
Test Name	Result	unit	Range
● Iron	32	µg/dL	50 - 170
● TIBC,(Total Iron Binding Capacity)	460	µg/dL	250 - 450
● UIBC	428	µg/dL	70 - 310
● Transferrin Saturation	6.96	%	16 - 45

METABOLIC			
Test Name	Result	unit	Range
RHEUMATOID FACTOR, Quantitative	< 9.0	IU/mL	

VITAMIN PROFILE			
Test Name	Result	unit	Range
● Vitamin - B12	201	pg/mL	187 - 883
● Vitamin D 25 - Hydroxy	65.3	ng/mL	30 - 100

THYROID PROFILE			
Test Name	Result	unit	Range
● Triiodothyronine (T3)	95.9	ng/dL	35 - 193
● Total Thyroxine (T4)	8.7	µg/dL	4.87 - 11.72
● Thyroid Stimulating Hormone (Ultrasensitive)	1.9	µIU/mL	0.35 - 4.94

ALLERGY PANEL			
Test Name	Result	unit	Range
● IMMUNOGLOBULIN IgE TOTAL SERUM	28.2	IU/mL	< 100

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Health Advisory

● In Range ● Borderline (BL) ● 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: 9.8_{g/dL}

● BORDERLINE



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: 22_{mm/hr}

● BORDERLINE



CRP (Quantitative): 22.5_{mg/L}

● OUT OF RANGE





Diabetes

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

Glycosylated Hemoglobin (HbA1c): 6.5%

● 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

Alkaline Phosphatase: 123 U/L

● BORDERLINE



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): 10.5 mg/L

● OUT OF 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: 32 µg/dL

● OUT OF RANGE



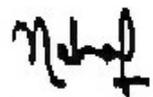
Patient NAME		Report STATUS	
DOB/Age/Gender		Barcode NO	
Patient ID / UHID		Sample Type	
Referred BY		Report Date	
Sample Collected			
Test Description	Value(s)	Unit(s)	Reference Range

Advance Plus Full Body Checkup

Complete Blood Count (CBC)

RBC Parameters			
Hemoglobin <i>Cyanide free spectrophotometry</i>	9.8	g/dL	12.0 - 15.0
RBC Count <i>Electrical impedance</i>	4.5	10 ⁶ /μl	3.8 - 4.8
PCV <i>Calculated</i>	31.2	%	36 - 46
MCV <i>Calculated</i>	69.8	fl	83 - 101
MCH <i>Calculated</i>	22	pg	27 - 32
MCHC <i>Calculated</i>	31.5	g/dL	31.5 - 34.5
RDW (CV) <i>Calculated</i>	18.2	%	11.6 - 14.0
RDW-SD <i>Calculated</i>	40.3	fl	35.1 - 43.9
WBC Parameters			
TLC <i>Electrical impedance and microscopy</i>	9.9	10 ³ /μl	4 - 10
Differential Leucocyte Count			
Neutrophils <i>Flow-cytometry DHSS</i>	58.7	%	40 - 80
Lymphocytes <i>Flow-cytometry DHSS</i>	30.4	%	20 - 40
Monocytes <i>Flow-cytometry DHSS</i>	7.2	%	2 - 10
Eosinophils <i>Flow-cytometry DHSS</i>	3.4	%	1 - 6
Basophils <i>Flow-cytometry DHSS</i>	0.3	%	0 - 2
Absolute Leukocyte Counts			
Neutrophils. <i>Calculated</i>	5.81	10 ³ /μl	2 - 7
Lymphocytes. <i>Calculated</i>	3.01	10 ³ /μl	1 - 3
Monocytes. <i>Calculated</i>	0.71	10 ³ /μl	0.2 - 1.0
Eosinophils. <i>Calculated</i>	0.34	10 ³ /μl	0.02 - 0.5
Basophils.	0.03	10 ³ /μl	0.02-0.1

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



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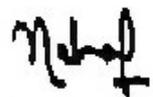
Patient NAME		Report STATUS :	
DOB/Age/Gender		Barcode NO :	
Patient ID / UHID		Sample Type :	
Referred BY		Report Date :	
Sample Collected			

Test Description	Value(s)	Unit(s)	Reference Range
<i>Calculated</i>			
Platelet Parameters			
Platelet Count <i>Electrical impedance and microscopy</i>	452	10 ³ /μl	150 - 410
Mean Platelet Volume (MPV) <i>Calculated</i>	11.8	fL	9.3 - 12.1
PCT <i>Calculated</i>	0.5	%	0.17 - 0.32
PDW <i>Calculated</i>	18.8	fL	8.3 - 25.0
P-LCR <i>Calculated</i>	44.5	%	18 - 50
P-LCC <i>Calculated</i>	201	10 ⁹ /L	44 - 140
Mentzer Index <i>Calculated</i>	15.51	%	> 13

Interpretation:

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

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



Dr. Neha Prabhakar
MBBS, MD(Pathology)

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

Test Description	Value(s)	Unit(s)	Reference Range
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Erythrocyte Sedimentation Rate (ESR)

ESR - Erythrocyte Sedimentation Rate <i>MODIFIED WESTERGREN</i>	22	mm/hr	0 - 20
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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)



Dr Meenal Garg
MBBS, MD(Pathology)
Registration number-MCI-48034

Patient NAME	Report STATUS
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Sample Collected	

Test Description	Value(s)	Unit(s)	Reference Range
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HbA1C (Glycosylated Haemoglobin)

Glycosylated Hemoglobin (HbA1c) <i>HPLC</i>	6.5	%	<5.7
Estimated Average Glucose	139.85	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:

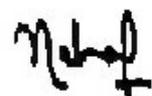
1. Since HbA1c reflects long term fluctuations in the blood glucose concentration, a diabetic patient who is recently under good control may still have a high concentration of HbA1c. Converse is true for a diabetic previously under good control but now poorly controlled. 2. Target goals of < 7.0 % may 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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Test Description	Value(s)	Unit(s)	Reference Range
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Glucose Fasting

Glucose Fasting <i>Hexokinase</i>	95	mg/dL	70 - 100
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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 are 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

- 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.
- Very high glucose levels ($>$ 450 mg/dL in adults) may result in Diabetic Ketoacidosis.



Dr. Poulami Sarkar
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NMC Certificate No. 24-005955

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Patient ID / UHID		Sample Type :	
Referred BY		Report Date :	
Sample Collected			
Test Description	Value(s)	Unit(s)	Reference Range

Liver Function Test (LFT)

Bilirubin Total <i>Diazonium Salt</i>	0.3	mg/dL	0.2 - 1.2
Bilirubin Direct <i>Diazo Reaction</i>	0.1	mg/dL	0.0 - 0.5
Bilirubin Indirect <i>Calculated</i>	0.2	mg/dL	0.1 - 1.0
SGOT/AST <i>Enzymatic [NADH (without P-5-P)]</i>	18	U/L	11 - 34
SGPT/ALT <i>Enzymatic [NADH (without P-5-P)]</i>	13	U/L	< 34
SGOT/SGPT Ratio <i>Calculated</i>	1.38	Ratio	-
Alkaline Phosphatase <i>Para-nitrophenyl phosphate (p-NPP)</i>	123	U/L	46 – 122
Total Protein <i>Biuret</i>	7.5	g/dL	6.4 - 8.3
Albumin <i>Colorimetric BCG</i>	4.4	g/dL	3.2 - 4.6
Globulin <i>Calculated</i>	3.1	g/dL	2.3 - 3.5
Albumin :Globulin Ratio <i>Calculated</i>	1.42	Ratio	1.3 - 2.1
Gamma Glutamyl Transferase (GGT) <i>L-Gamma-Glutamyl-3-Carboxy-4-Nitroanalide</i>	22	U/L	< 38

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:

- AST (SGOT):** may indicate tissue injury / damage in muscles or liver.
- ALT (SGPT):** Primarily in the liver. Elevated ALT and AST suggest liver damage.
- 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.

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

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



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Referred BY :	Sample Type
Sample Collected :	Report Date

Test Description	Value(s)	Unit(s)	Reference Range
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Kidney Function Test (KFT)

Blood Urea <i>Urease</i>	24	mg/dL	21 - 43
Bun <i>Calculated</i>	11.21	mg/dL	8 - 23
Creatinine <i>Kinetic Alkaline Picrate</i>	0.8	mg/dL	0.5 - 1.2
eGFR (CKD-EPI)	84.28	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 <i>Calculated</i>	14.01		12 - 20
Urea / Creatinine Ratio	30		
Uric Acid <i>Uricase</i>	6	mg/dL	2.5 - 6.2
Calcium Serum <i>Arsenazo III</i>	9	mg/dL	8.4 - 10.2
Phosphorus <i>Phosphomolybdate</i>	3.2	mg/dL	2.3 - 4.7
Sodium <i>ISE-Indirect</i>	136	mmol/L	136 - 145
Potassium <i>ISE-Indirect</i>	4.9	mmol/L	3.5 - 5.1
Chloride <i>ISE-Indirect</i>	102	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."



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Patient NAME

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Referred BY

Sample Collected

Report STATUS :

Barcode NO :

Sample Type :

Report Date :

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

Total Cholesterol <i>Enzymatic</i>	165	mg/dL	<200
Triglycerides <i>Glycerol phosphate oxidase</i>	97	mg/dL	<150
HDL Cholesterol <i>Accelerator Selective Detergent</i>	52	mg/dL	> 40
Non HDL Cholesterol <i>Calculated</i>	113	mg/dL	<130
LDL Cholesterol <i>Calculated</i>	93.6	mg/dL	<100
V.L.D.L Cholesterol <i>Calculated</i>	19.4	mg/dL	< 30
Chol/HDL Ratio <i>Calculated</i>	3.17	Ratio	-
HDL/ LDL Ratio <i>Calculated</i>	0.56	Ratio	-
LDL/HDL Ratio <i>Calculated</i>	1.8	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



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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 Risk	1. Three major ASCVD risk factors 2. Diabetes with 1 major risk factor or no evidence 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 \geq 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 \geq 45 years in Males & \geq 55 years in Females	3. Current Cigarette smoking or tobacco use		
2. Family history of premature ASCVD	4. High blood pressure		
5. Low HDL			

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

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

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

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



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

Iron <i>Ferene</i>	32	µg/dL	50 - 170
TIBC,(Total Iron Binding Capacity) <i>Calculated</i>	460	µg/dL	250 - 450
UIBC <i>Ferene</i>	428	µg/dL	70 - 310
Transferrin Saturation <i>Calculated</i>	6.96	%	16 - 45

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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Test Description	Value(s)	Unit(s)	Reference Range
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C-Reactive Protein (CRP), Quantitative

CRP (Quantitative) <i>Immunoturbidimetry</i>	22.5	mg/L	up to 5
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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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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) <i>Immunoturbidimetric</i>	10.5	mg/L	<1.00
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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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Sample Collected	

Test Description	Value(s)	Unit(s)	Reference Range
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Rheumatoid Factor (RF), Quantitative

RHEUMATOID FACTOR, Quantitative <i>Immunoturbidimetry</i>	< 9.0	IU/mL	Negative <30 Weakly positive 30 to 50 Positive >50
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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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Sample Collected :			

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

Ferritin CMIA	8.3	ng/mL	4.63 - 204.0
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Interpretation:

Note:

Increase in serum ferritin due to inflammatory conditions (Acute phase response) can mask a diagnostically low result

Comments

Serum ferritin appears to be in equilibrium with tissue ferritin and is a good indicator of storage iron in normal subjects and in most disorders. In patients with some hepatocellular diseases, malignancies and inflammatory diseases, serum ferritin is a disproportionately high estimate of storage iron because serum ferritin is an acute phase reactant. In such disorders iron deficiency anemia may exist with a normal serum ferritin concentration. In the presence of inflammation, persons with low serum ferritin are likely to respond to iron therapy.

Increased Levels

1. Iron overload - Hemochromatosis, Thalassemia & Sideroblastic anemia
2. Malignant conditions - Acute myeloblastic & Lymphoblastic leukemia, Hodgkin's disease & Breast carcinoma
3. Inflammatory diseases - Pulmonary infections, Osteomyelitis, Chronic UTI, Rheumatoid arthritis, SLE, burns · Acute & Chronic hepatocellular disease

Decreased Levels

Iron deficiency anemia



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Referred BY		Sample Type	
Sample Collected		Report Date	
Test Description	Value(s)	Unit(s)	Reference Range

Vitamin B12 / Cyanocobalamin

Vitamin - B12 CMIA	201	pg/mL	187 - 883
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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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DOB/Age/Gender :		Barcode NO
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Sample Collected :		

Test Description	Value(s)	Unit(s)	Reference Range
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Vitamin D 25 Hydroxy

Vitamin D 25 - Hydroxy <i>CMIA</i>	65.3	ng/mL	Deficient <20 Insufficient 21 - 29 Sufficient 30 - 100
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Interpretation:

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



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Sample Collected	

Test Description	Value(s)	Unit(s)	Reference Range
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Thyroid Profile Total

Triiodothyronine (T3) CMIA	95.9	ng/dL	35 - 193
Total Thyroxine (T4) CMIA	8.7	µg/dL	4.87 - 11.72
Thyroid Stimulating Hormone (Ultrasensitive) CMIA	1.9	µIU/mL	0.35 - 4.94

Interpretation:

Pregnancy	Reference 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 Normal	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
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Immunoglobulin E (IgE Total)

IMMUNOGLOBULIN IgE TOTAL SERUM <i>Immunoturbidimetric</i>	28.2	IU/mL	<100
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Interpretation:

The level of serum IgE rises during childhood and reaches adult levels during the teens. IgE is the mediator of the allergic response. Patients with atopic disease, including allergic asthma, 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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Test Description	Value(s)	Unit(s)	Reference Range
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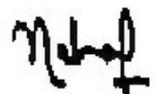
Urine Routine and Microscopic Examination

Physical Examination			
Volume	20	mL	-
Colour	Pale yellow	-	Pale yellow
Transparency	Clear	-	Clear
Deposit	Absent	-	Absent
Chemical Examination			
Reaction (pH) <i>Double Indicator</i>	5.0	-	4.5 - 8.0
Specific Gravity <i>Ion Exchange</i>	1.010	-	1.010 - 1.030
Urine Glucose (sugar) <i>Oxidase / Peroxidase</i>	Negative	-	Negative
Urine Protein (Albumin) <i>Acid / Base Colour Exchange</i>	Negative	-	Negative
Urine Ketones (Acetone) <i>Legals Test</i>	Negative	-	Negative
Blood <i>Peroxidase Hemoglobin</i>	Negative	-	Negative
Leucocyte esterase <i>Enzymatic Reaction</i>	Negative	-	Negative
Bilirubin Urine <i>Coupling Reaction</i>	Negative	-	Negative
Nitrite <i>Griless Test</i>	Negative	-	Negative
Urobilinogen <i>Ehrlichs Test</i>	Normal	-	Normal
Microscopic Examination			
Pus Cells (WBCs)	2-3	/hpf	0 - 5
Epithelial Cells	1-2	/hpf	0 - 4
Red blood Cells	Absent	/hpf	0 - 2
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

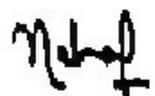


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Test Description	Value(s)	Unit(s)	Reference Range
<p>Glucose: Uncontrolled diabetes mellitus can lead to presence of glucose in urine. Other causes include pregnancy, hormonal disturbances, liver disease and certain medications.</p> <p>Ketones: Uncontrolled diabetes mellitus can lead to presence of ketones in urine. Ketones can also be seen in starvation, frequent vomiting, pregnancy and strenuous exercise.</p> <p>Blood: Occult blood can occur in urine as intact erythrocytes or haemoglobin, which can occur in various urological, nephrological and bleeding disorders.</p> <p>Leukocytes: An increase in leukocytes is an indication of inflammation in urinary tract or kidneys. Most common cause is bacterial urinary tract infection.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Bilirubin: In certain liver diseases such as biliary obstruction or hepatitis, bilirubin gets excreted in urine.</p> <p>Urobilinogen: Positive results are seen in liver diseases like hepatitis and cirrhosis and in cases of haemolytic anaemia.</p>			

*** End Of Report ***



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Patient Data

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

Comments:

Analysis Data

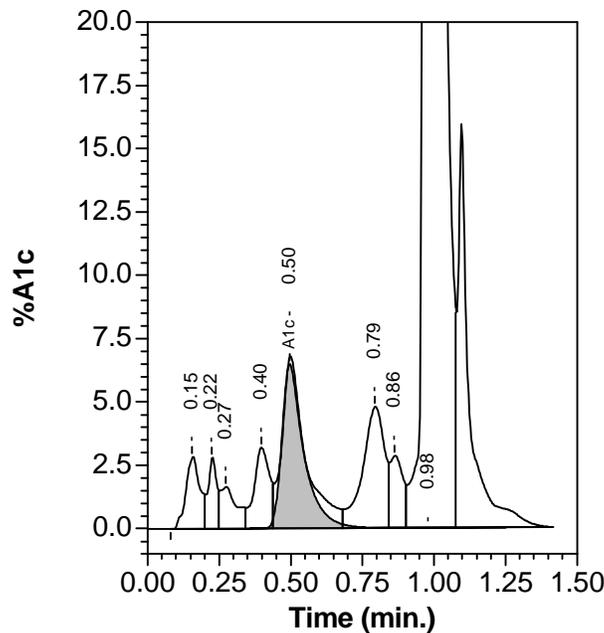
Analysis Performed:
 Injection Number:
 Run Number:
 Rack ID:
 Tube Number:
 Report Generated:
 Operator ID:

Peak Name	NGSP %	Area %	Retention Time (min)	Peak Area
A1a	---	1.5	0.155	44314
A1b	---	0.9	0.222	26790
F	---	1.0	0.271	30072
LA1c	---	1.9	0.397	55371
A1c	6.5*	---	0.496	158535
P3	---	4.0	0.792	115147
P4	---	1.4	0.861	40491
Ao	---	83.7	0.981	2424303

*Values outside of expected ranges

Total Area: 2,895,023

HbA1c (NGSP) = 6.5* %



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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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