Redcliffe labs

Healthy India Ki Trusted Lab

smart Health Report

An Insightful Health Analytics Report for Easier Understanding

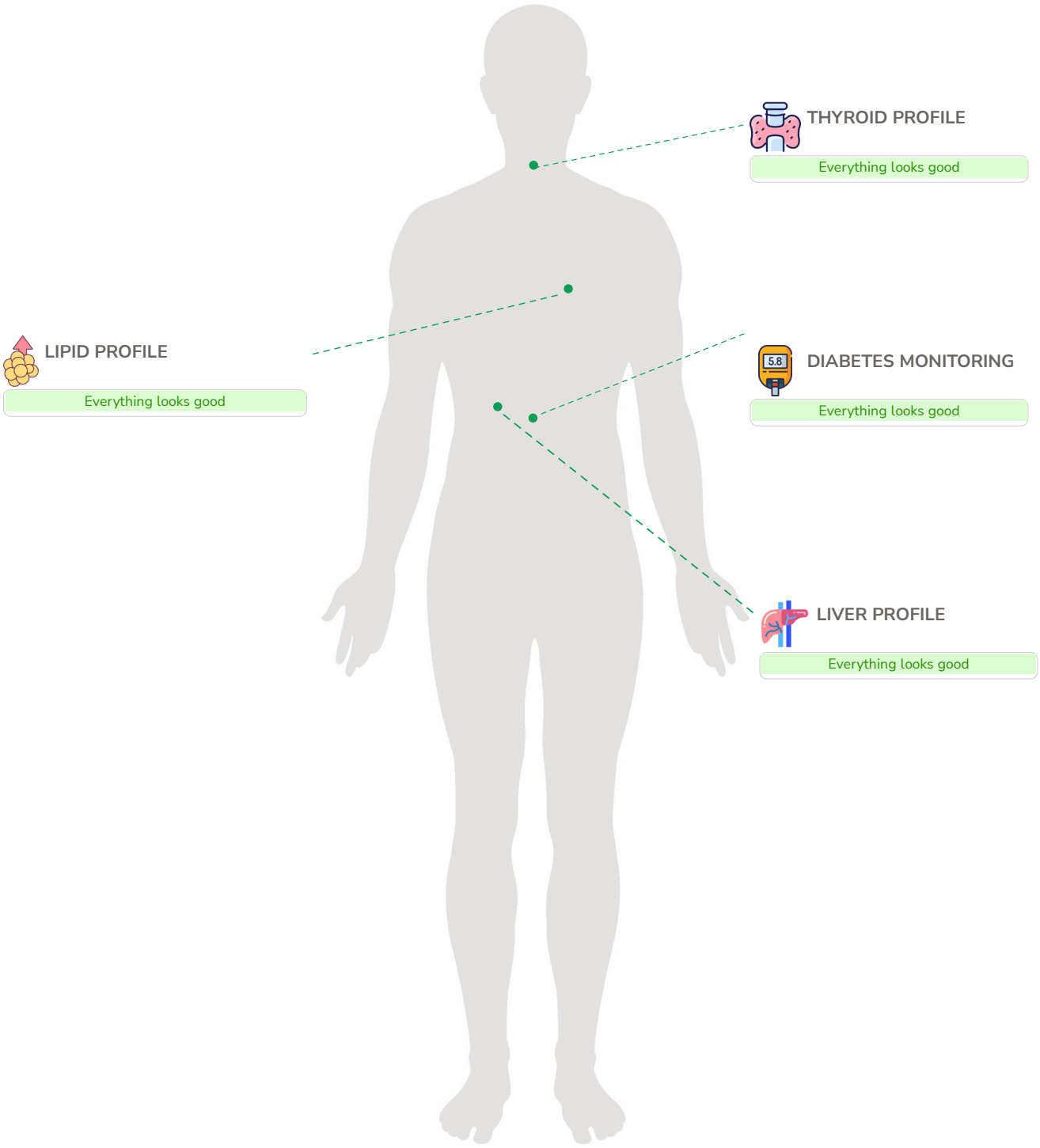
Prepared For

Mr MR.DUMMY

M 23

Name	Patient ID	Gender	Age
Mr MR.DUMMY	8053169	M	23

Health Summary



LABORATORY REPORT

Redcliffe labs

Patient Name	: **Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053169/RCL7249663	Report Date	: May 25, 2024, 04:59 PM.
Referred By	: Dr. Dr. X	Barcode No	: HY585729
Sample Type	: Whole blood EDTA	Report Status	: Final Report

Hypertension Profile Advance

HbA1C (Glycosylated Haemoglobin)

Test Description	Value(s)	Unit(s)	Reference Range
Glycosylated Hemoglobin (HbA1c) *HPLC*	5.2	%	< 5.7
Estimated Average Glucose	102.54	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

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053169/RCL7249663	Report Date	: May 08, 2024, 11:46 AM.
Referred By	: Dr. Dr. X	Barcode No	: ZC664133
Sample Type	: FLUORIDE F	Report Status	: Final Report

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

Glucose Fasting (BSF)

Glucose Fasting *Hexokinase*	90.0	mg/dL	<100

Interpretation:

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

Reference : American Diabetes Association

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

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

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DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053169/RCL7249663	Report Date	: May 08, 2024, 12:46 PM.
Referred By	: Dr. Dr. X	Barcode No	: ZC664134
Sample Type	: Serum	Report Status	: Final Report

Liver Function Test (LFT)

Test Description	Value(s)	Unit(s)	Reference Range
Bilirubin Total *Diazo*	0.2	mg/dL	0 - 1.2
Bilirubin Direct *Diazo Jondrof*	0.1	mg/dL	0 - 0.20
Bilirubin Indirect *Calculation (T Bil - D Bil)*	0.1	mg/dL	0.1 - 1.0
SGOT/AST *IFCC without P5P*	15	U/L	up to 40
SGPT/ALT *IFCC without P5P*	16	U/L	up to 41
SGOT/SGPT Ratio *Calculated*	0.94	%	-
Alkaline Phosphatase *IFCC*	105	U/L	40 - 129
Total Protein *Biuret*	7.0	g/dL	6.4 - 8.3
Albumin *BCG Colorimetric*	4.0	g/dL	3.5 - 5.2
Globulin *Calculation (T.P - Albumin)*	3	g/dL	2.3 - 3.5
Albumin :Globulin Ratio *Calculation (Albumin/Globulin)*	1.33	-	1.3 - 2.1
Gamma Glutamyl Transferase (GGT) *IFCC Colorimetric*	15	U/L	8 - 61

Interpretation:

The liver filters and processes blood as it circulates through the body. It metabolizes nutrients, detoxifies harmful substances, makes blood clotting proteins, and performs many other vital functions. The cells in the liver contain proteins called enzymes that drive these chemical reactions. When liver cells are damaged or destroyed, the enzymes in the cells leak out into the blood, where they can be measured by blood tests Liver tests check the blood for two main liver enzymes. Aspartate aminotransferase (AST),SGOT: The AST enzyme is also found in muscles and many other tissues besides the liver. Alanine aminotransferase (ALT), SGPT: ALT is almost exclusively found in the liver. If ALT and AST are found together in elevated amounts in the blood, liver damage is most likely present. Alkaline Phosphatase and GGT: Another of the liver's key functions is the production of bile, which helps digest fat. Bile flows through the liver in a system of small tubes (ducts), and is eventually stored in the gallbladder, under the liver. When bile flow is slow or blocked, blood levels of certain liver enzymes rise: Alkaline phosphatase Gamma-utamyl transpeptidase (GGT) Liver tests may check for any or all of these enzymes in the blood. Alkaline phosphatase is by far the most commonly tested of the three. If alkaline phosphatase and GGT are elevated, a problem with bile flow is most likely present. Bile flow problems can be due to a problem in the liver, the gallbladder, or the tubes connecting them. Proteins are important building blocks of all cells and tissues. Proteins are necessary for your body's growth, development, and health. Blood contains two classes of protein, albumin and globulin. Albumin proteins keep fluid from leaking out of blood vessels. Globulin proteins play an important role in your immune system. Low total protein may

Indicate:

1.Bleeding
2.Liver disorder
3.Malnutrition
4.Agammaglobulinemia High Protein levels 'Hyperproteinemia: May be seen in dehydration due to inadequate water intake or to excessive water loss (eg, severe vomiting, diarrhea, Addison's disease and diabetic acidosis) or as a result of increased production of proteins Low

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Referred By	: Dr. Dr. X	Barcode No	: ZC664134
Sample Type	: Serum	Report Status	: Final Report

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

albumin levels may be

Caused by:
1.A poor diet (malnutrition).
2.Kidney disease.
3.Liver disease. High albumin levels may be caused by: Severe dehydration.

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DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053169/RCL7249663	Report Date	: May 08, 2024, 12:39 PM.
Referred By	: Dr. Dr. X	Barcode No	: ZC664134
Sample Type	: Serum	Report Status	: Final Report

Lipid Profile

Test Description	Value(s)	Unit(s)	Reference Range
Total Cholesterol *CHOD-PAP*	112	mg/dL	<200
Triglycerides *Enzymatic colorimetric*	101	mg/dL	<150
HDL Cholesterol *CHOD-POD*	52	mg/dL	> 40
Non HDL Cholesterol *Calculated*	60	mg/dL	<130
LDL Cholesterol *Calculated*	39.8	mg/dL	<100
V.L.D.L Cholesterol *Calculated*	20.2	mg/dL	< 30
Chol/HDL Ratio *Calculated*	2.15	Ratio	-
HDL/ LDL Ratio *Calculated*	1.31	Ratio	-
LDL/HDL Ratio *Calculated*	0.77	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

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

Very High Risk	1.Established ASCVD 2.Diabetes with 2 major risk factors of evidence of end organ damage 3. Familial Homozygous Hypercholesterolemia
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 >/= 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 Type	: Serum	Report Status	: Final Report

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

Thyroid Profile Total

Triiodothyronine (T3) *CMIA*	95.0	ng/dL	35 - 193
Total Thyroxine (T4) *CMIA*	5.6	µg/dL	4.87 - 11.72
Thyroid Stimulating Hormone (Ultrasensitive) *CMIA*	4.1	µIU/mL	0.35 - 4.94

Interpretation:

Pregnancy	Reference ranges TSH
1 st Trimester	0.1 - 2.5
2 ed Trimester	0.2 - 3.0
3 rd Trimester	0.3 - 3.0

Primary malfunction of the thyroid gland may result in excessive (hyper) or below normal (hypo) release of T3 or T4. In addition as TSH directly affects thyroid function, malfunction of the pituitary or the hypo - thalamus influences the thyroid gland activity. Disease in any portion of the thyroid-pitutary-hypothala- mus system may influence the levels of T3 and T4 in the blood. In primary hypothyroidism, TSH levels are significantly elevated, while in secondary and tertiary hypothyroidism, TSH levels may be low. In addition, in the Euthyroid Sick Syndrome, multiple alterations in serum thyroid function test findings have been recognized in patients with a wide variety of non-thyroidal illnesses (NTI) without evidence of preexisting thyroid or hypothalami c-pitutary diseases. Thyroid Binding Globulin (TBG) concentrations remain relatively constant in healthy individuals. However, pregnancy, excess estrogen's, androgen's, antibiotic steroids and glucocorticoids are known to alter TBG levels and may cause false thyroid values for Total T3 and T4 tests.

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)

Dehydroepiandrosterone Sulfate (DHEAS)

DHEAS (Dehydroepiandrostenedione Sulphate)	250.0	µg/dL	211 - 492

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Sample Type	: Serum	Report Status	: Final Report

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

Interpretation:

	Age (years)	Bio. Reference Interval (µg/dL)
Children	<1 week	108-607
	1 - 4 weeks	31.6-431
	1 - 12 months	3.4-124
	1 - 4 years	0.47-19.4
	5 - 9 years	2.8-85.2
Females	10 - 14 years	33.9-280
	15 - 19 years	65.1-368
	20 - 24 years	148-407
	25 - 34 years	98.8-340
	35 - 44 years	60.9-337
	45 - 54 years	35.4-256
	55 - 64 years	18.9-205
	65 - 74 years	9.40-246
	≥ 75	12.0-154
Males	10 - 14 years	24.4-247
	15 - 19 years	70.2-492
	20 - 24 years	211-492
	25 -34 years	160-449
	35 - 44 years	88.9-427
	45 - 54 years	44.3-331
	55 - 64 years	51.7-295
	65 - 74 years	33.6-249
	≥ 75	16.2-123

Clinical Use

1. Marker for Adrenal cortical function and disease

2. Differential diagnosis of virilized patient. In patients with virilizing tumors, DHEAS levels usually exceed 7000 µg/dL.

Increased levels

1. Congenital Adrenal Hyperplasia

2. Adrenal carcinoma

3. Virilizing tumors of the Adrenal gland

4. Cushing's disease, pituitary dependent

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

Decreased Levels
1. Addison's disease
2. Adrenal hypoplasia

Cortisol, Morning Sample

Cortisol *ECLIA*	6.9	µg/dL	

Interpretation:

CORTISOL, MORNING	6.7 – 22.60
CORTISOL, EVENING	< 10
CORTISOL, RANDOM	3.0 – 22.6

Note:
Cortisol is best measured in the morning when evaluating for possible Adrenal Insufficiency and best measured in the afternoon or evening to differentiate normal and Cushings Syndrome subjects. Diurnal rhythmicity of cortisol is increased by systemic disease and stress.
Clinical Use :
Direct assessment of Adrenal function
Increased levels: Cushings Syndrome, Ectopic ACTH syndrome, Ectopic CRH syndrome, Adrenal adenoma / carcinoma, Adrenal micronodular dysplasia, Adrenal macronodular hyperplasia, Stress
Decreased Levels: Addisons disease, Pituitary dysfunction

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DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053169/RCL7249663	Report Date	: May 25, 2024, 05:00 PM.
Referred By	: Dr. Dr. X	Barcode No	: YA607760
Sample Type	: Spot Urine	Report Status	: Final Report

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*	5.0	-	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)	1-2	/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

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Referred By	: Dr. Dr. X	Barcode No	: YA607760
Sample Type	: Spot Urine	Report Status	: Final Report

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 ***

Disclaimer: Method given in report are only indicative and can be changed depending upon type of machine and kit available at time of testing.

Not all tests at all locations are under NABL scope. Availability of tests under NABL scope varies from lab to lab.

Dr. Dummy

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