Redcliffe labs

Healthy India Ki Trusted Lab

smart Health Report

An Insightful Health Analytics Report for Easier Understanding

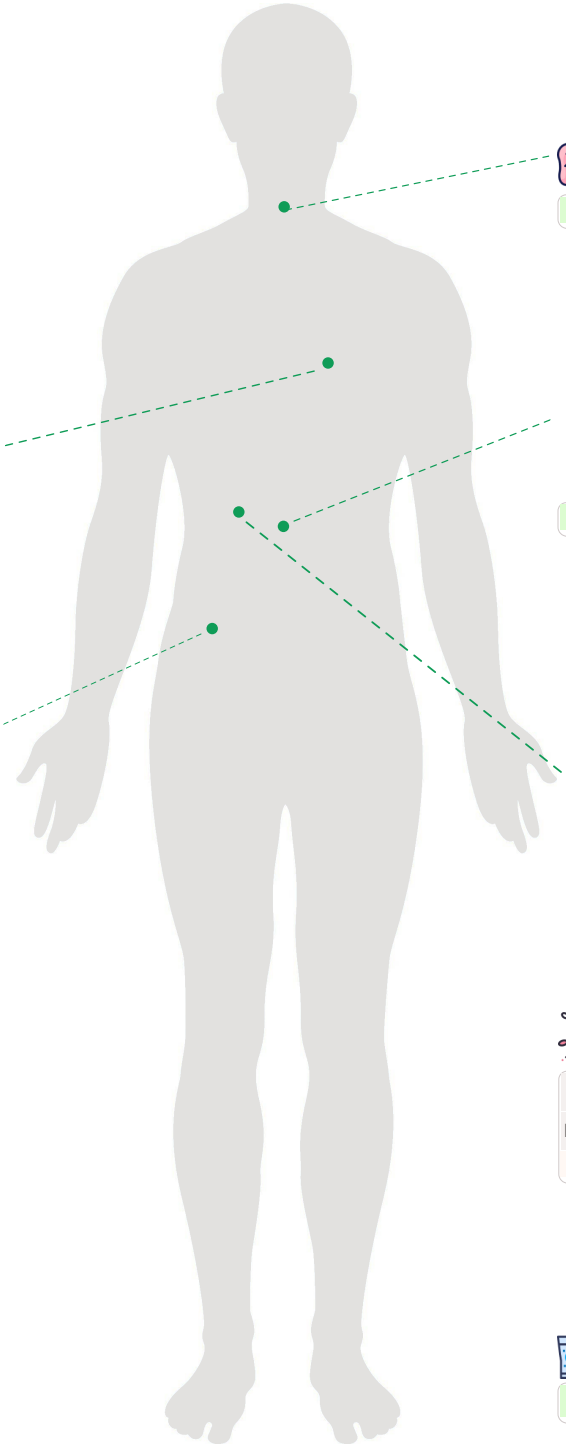
Prepared For

Mr MR.DUMMY

M 23

Name	Patient ID	Gender	Age
Mr MR.DUMMY	8053378	M	23

Health Summary



BLOOD COUNTS

Everything looks good

THYROID PROFILE

Everything looks good

LIPID PROFILE

Everything looks good

DIABETES MONITORING

Everything looks good

KIDNEY PROFILE

Everything looks good

LIVER PROFILE

Everything looks good

ANEMIA STUDIES

Test Name	Result
Hemoglobin	8

Please Watchout

VITAMIN PROFILE

Everything looks good

MINERAL PROFILE

Everything looks good

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	: 8053378/RCL7249218	Report Date	: May 25, 2024, 06:04 PM.
Referred By	: Dr. Dr. X	Barcode No	: HY587272
Sample Type	: Whole blood EDTA	Report Status	: Final Report

Full Body Check Up With Arthritis Package

Complete Blood Count (CBC)

Test Description	Value(s)	Unit(s)	Reference Range
RBC Parameters			
Hemoglobin *colorimetric*	**8**	g/dL	13.0 - 17.0
RBC Count *Electrical impedance*	**2.5**	10^6/µl	4.5 - 5.5
PCV *Calculated*	**25.2**	%	40 - 50
MCV *Calculated*	99.5	fl	83 - 101
MCH *Calculated*	31.7	pg	27 - 32
MCHC *Calculated*	31.9	g/dL	31.5 - 34.5
RDW (CV) *Calculated*	**15.4**	%	11.6 - 14.0
RDW-SD *Calculated*	**59**	fl	35.1 - 43.9
WBC Parameters			
TLC *Electrical impedance and microscopy*	5.9	10^3/µl	4 - 10
Differential Leucocyte Count			
Neutrophils *Laser based Flow-cytometry*	77	%	40-80
Lymphocytes *Laser based Flow-cytometry*	20	%	20-40
Monocytes *Laser based Flow-cytometry*	2	%	2-10
Eosinophils *Laser based Flow-cytometry*	1	%	1-6
Basophils *Laser based Flow-cytometry*	0	%	<2
Absolute Leukocyte Counts			
Neutrophils. *Calculated*	4.54	10^3/µl	2 - 7
Lymphocytes. *Calculated*	1.18	10^3/µl	1 - 3
Monocytes. *Calculated*	**0.12**	10^3/µl	0.2 - 1.0
Eosinophils. *Calculated*	0.06	10^3/µl	0.02 - 0.5
Basophils.	**0**	10^3/µl	0.02 - 0.5

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 25, 2024, 06:04 PM.
Referred By	: Dr. Dr. X	Barcode No	: HY587272
Sample Type	: Whole blood EDTA	Report Status	: Final Report

Test Description	Value(s)	Unit(s)	Reference Range
Calculated			
Platelet Parameters			
Platelet Count *Electrical impedance and microscopy*	160	10^3/µl	150 - 410
Mean Platelet Volume (MPV) *Calculated*	9.8	fL	9.3 - 12.1
PCT *Calculated*	**0.1**	%	0.17 - 0.32
PDW *Calculated*	16.3	fL	8.3 - 25.0
P-LCR *Calculated*	31.6	%	18 - 50
P-LCC *Calculated*	46	%	44 - 140
Mentzer Index *Calculated*	39.8	%	> 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.

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 25, 2024, 06:04 PM.
Referred By	: Dr. Dr. X	Barcode No	: HY587272
Sample Type	: Whole blood EDTA	Report Status	: Final Report

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

Erythrocyte Sedimentation Rate (ESR)

ESR - Erythrocyte Sedimentation Rate *MODIFIED WESTERGREN*	5	mm/hr	0 - 10

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.

AGE	MALE	FEMALE
1 DAY	0-2	0-2
2 - 7 DAYS	0-4	0-4
8 - 14 DAYS	0-17	0-17
15 DAYS - 17 YEARS	0-20	0-20
18 - 50 YEARS	0-10	0-12
51- 60 YEARS	0-12	0-19
61 - 70 YEARS	0-14	0-20
71 - 100 YEARS	0-30	0-35

Reference- Dacie and lewis practical hematology

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 25, 2024, 06:04 PM.
Referred By	: Dr. Dr. X	Barcode No	: HY587272
Sample Type	: Whole blood EDTA	Report Status	: Final Report

HbA1C (Glycosylated Haemoglobin)

Test Description	Value(s)	Unit(s)	Reference Range
Glycosylated Hemoglobin (HbA1c) *HPLC*	5.3	%	< 5.7
Estimated Average Glucose	105.41	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	: 8053378/RCL7249218	Report Date	: May 08, 2024, 11:42 AM.
Referred By	: Dr. Dr. X	Barcode No	: ZC667832
Sample Type	: FLUORIDE F	Report Status	: Final Report

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

Glucose Fasting (BSF)

Glucose Fasting *Hexokinase*	78.0	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.

Dr. Dummy

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	: 8053378/RCL7249218	Report Date	: May 09, 2024, 10:19 AM.
Referred By	: Dr. Dr. X	Barcode No	: ZC667831
Sample Type	: Serum	Report Status	: Final Report

Liver Function Test (LFT)

Test Description	Value(s)	Unit(s)	Reference Range
Bilirubin Total *Diazo*	0.34	mg/dL	0 - 1.2
Bilirubin Direct *Diazo Jondrof*	0.05	mg/dL	0 - 0.20
Bilirubin Indirect *Calculation (T Bil - D Bil)*	0.29	mg/dL	0.1 - 1.0
SGOT/AST *IFCC without P5P*	15.6	U/L	up to 40
SGPT/ALT *IFCC without P5P*	12.3	U/L	up to 41
SGOT/SGPT Ratio *Calculated*	1.27	%	-
Alkaline Phosphatase *IFCC*	105.0	U/L	40 - 129
Total Protein *Biuret*	8.0	g/dL	6.4 - 8.3
Albumin *BCG Colorimetric*	4.9	g/dL	3.5 - 5.2
Globulin *Calculation (T.P - Albumin)*	3.1	g/dL	2.3 - 3.5
Albumin :Globulin Ratio *Calculation (Albumin/Globulin)*	1.58	-	1.3 - 2.1
Gamma Glutamyl Transferase (GGT) *IFCC Colorimetric*	9.4	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

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 09, 2024, 10:19 AM.
Referred By	: Dr. Dr. X	Barcode No	: ZC667831
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.

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 08, 2024, 01:07 PM.
Referred By	: Dr. Dr. X	Barcode No	: ZC667831
Sample Type	: Serum	Report Status	: Final Report

Kidney Function Test (KFT)

Test Description	Value(s)	Unit(s)	Reference Range
Blood Urea *Urease*	22.0	mg/dL	19 - 44.1
Creatinine *Kinetic Alkaline Picrate*	0.9	mg/dL	0.6 - 1.2
Bun *Calculated*	10.28	mg/dL	8.9 - 20.6
Bun/Creatinine Ratio *Calculated*	11.42		
Urea / Creatinine Ratio	24.44		
Uric Acid *Uricase*	4.3	mg/dL	3.7 - 7.7
Calcium Serum *Arsenazo III*	9.3	mg/dL	8.4 - 10.2
Phosphorus *Phosphomolybdate*	4.2	mg/dL	2.3 - 4.7
Sodium *ISE-Indirect*	141.0	mmol/L	136 - 145
Potassium *ISE-Indirect*	4.2	mmol/L	3.5 - 5.1
Chloride *ISE-Indirect*	103.0	mmol/L	98 - 107

Interpretation:

Kidney function tests is a collective term for a variety of individual tests and proceduresthat can be done toevaluate how well the kidneys are functioning. Many conditions can affect the ability of the kidneys to carryout their vital functions. Somelead to a rapid (acute) decline in kidney functionothers lead to a gradual (chronic) declineinfunction. Both result in a buildup of toxic waste subst 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. Electrolytes (sodium,potassium,and chloride) are present in the human body and the balancing act of the electrolytes in our bodies is essential for normal function of our cells and organs. There has to be a balance.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.

Dr. Dummy

Patient Name	: **Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 09, 2024, 09:43 AM.
Referred By	: Dr. Dr. X	Barcode No	: ZC667831
Sample Type	: Serum	Report Status	: Final Report

Lipid Profile

Test Description	Value(s)	Unit(s)	Reference Range
Total Cholesterol *Enzymatic - Cholesterol Oxidase*	124.0	mg/dL	<200
Triglycerides *Colorimetric - Lip/Glycerol Kinase*	102.0	mg/dL	<150
HDL Cholesterol *Phosphotungstic acid- Enzymatic*	56.7	mg/dL	> 40
Non HDL Cholesterol *Calculated*	67.3	mg/dL	<130
LDL Cholesterol *Calculated*	46.9	mg/dL	<100
V.L.D.L Cholesterol *Calculated*	20.4	mg/dL	< 30
Chol/HDL Ratio *Calculated*	2.19	Ratio	-
HDL/ LDL Ratio *Calculated*	1.21	Ratio	-
LDL/HDL Ratio *Calculated*	0.83	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

Dr. Dummy

Patient Name	: **Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 09, 2024, 09:43 AM.
Referred By	: Dr. Dr. X	Barcode No	: ZC667831
Sample Type	: Serum	Report Status	: Final Report

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.

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 08, 2024, 11:51 AM.
Referred By	: Dr. Dr. X	Barcode No	: ZC667831
Sample Type	: Serum	Report Status	: Final Report

Iron Studies

Test Description	Value(s)	Unit(s)	Reference Range
Iron *FerroZine*	77.5	µg/dL	33 - 193
TIBC,(Total Iron Binding Capacity) *Calculated*	364.5	µg/dL	228 - 428
UIBC *FerroZine*	287.0	µg/dL	125 - 345
Transferrin Saturation *Calculated*	21.26	%	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.

Dr. Dummy

Patient Name	: **Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 08, 2024, 12:19 PM.
Referred By	: Dr. Dr. X	Barcode No	: ZC667831
Sample Type	: Serum	Report Status	: Final Report

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

C-Reactive Protein (CRP), Quantitative

CRP (Quantitative) *Immunoturbidimetric*	2.0	mg/L	<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.

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 08, 2024, 12:26 PM.
Referred By	: Dr. Dr. X	Barcode No	: ZC667831
Sample Type	: Serum	Report Status	: Final Report

Rheumatoid Factor (RF), Quantitative

Test Description	Value(s)	Unit(s)	Reference Range
RHEUMATOID FACTOR, Quantitative *Immunoturbidimetry*	3.0	IU/mL	<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.

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 08, 2024, 11:47 AM.
Referred By	: Dr. Dr. X	Barcode No	: ZC667831
Sample Type	: Serum	Report Status	: Final Report

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

Vitamin B12 / Cyanocobalamin

Vitamin - B12 *CMIA*	215.0	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."

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 08, 2024, 11:54 AM.
Referred By	: Dr. Dr. X	Barcode No	: ZC667831
Sample Type	: Serum	Report Status	: Final Report

Test Description	Value(s)	Unit(s)	Reference Range
Vitamin D 25 Hydroxy			
Vitamin D 25 - Hydroxy *CMIA*	49.0	ng/mL	Deficient <20 Insufficient 21 - 29 Sufficient 30 - 100

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.

Dr. Dummy

Patient Name	: **Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 09, 2024, 10:19 AM.
Referred By	: Dr. Dr. X	Barcode No	: ZC667831
Sample Type	: Serum	Report Status	: Final Report

Test Description	Value(s)	Unit(s)	Reference Range
Thyroid Profile Total			
Triiodothyronine (T3) *CMIA*	98.0	ng/dL	35 - 193
Total Thyroxine (T4) *CMIA*	7.6	µg/dL	4.87 - 11.72
Thyroid Stimulating Hormone (Ultrasensitive) *CMIA*	2.5	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)

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 09, 2024, 10:19 AM.
Referred By	: Dr. Dr. X	Barcode No	: ZC667831
Sample Type	: Serum	Report Status	: Final Report

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

Anti Streptolysin O (ASO), Quantitative

Antistreptolysin-O (ASO) Titre, Serum *Immunoturbidimetry*	120.0	IU/mL	< 200

Interpretation:
Positive Antistreptolysin O (ASO) titres are useful for confirming exposure to Streptococcus pyogenes in the absence of other confirmatory laboratory evidence. ASO antibodies are detected in acute and convalescent serum samples primarily to diagnose Acute Rheumatic Fever and Acute Glomerulonephritis following infection with Group A streptococcus. Results should always be assessed in conjunction with the medical history and clinical findings of the patient.

Complement Protein Concentration (C3)

C3 COMPLEMENT, SERUM *Immunoturbidimetric*	123.0	mg/dL	90 - 180

Interpretation:
Comments
Complement C3 is required for the activation of all three pathways namely classic pathway, properdin pathway and MBP pathway. C3 deficiency may result in Pneumococcal and Neisserial infections as well as autoimmune diseases like Glomerulonephritis. It also acts as an acute phase reactant and levels rise after trauma, surgery and during inflammatory processes.

Increased Levels - Acute phase response, Biliary obstruction & Focal glomerulosclerosis

Decreased Levels - Infancy, Genetic deficiency, Acquired deficiency like Lupus nephritis, Collagen vascular diseases & severe infections

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 08, 2024, 12:43 PM.
Referred By	: Dr. Dr. X	Barcode No	: ZC667831
Sample Type	: Serum	Report Status	: Final Report

Anti Cyclic Citrullinated Peptide Antibodies (Anti CCP)

Test Description	Value(s)	Unit(s)	Reference Range
ANTI CCP (CYCLIC CITRULLINATED PEPTIDE) *CMIA*	0.65	U/mL	Negative: < 5.0 Positive: >=5.0

Interpretation:

Note

1. Sensitivity of this assay is 70.6% and specificity is 98.2%
2. Specificity of Anti CCP antibodies in Juvenile arthritis patients has not been established

Comments

Anti CCP antibodies are useful for evaluating patients suspected of Rheumatoid arthritis. Positive results occur in 60-80% of Rheumatoid arthritis patients depending on disease severity. The positive predictive value of Anti CCP antibodies for Rheumatoid arthritis is far greater than Rheumatoid factor. False positive results are uncommon. Upto 30% patients with seronegative Rheumatoid arthritis also show Anti CCP antibodies.

Clinical Uses

1. For diagnosis of early Rheumatoid arthritis - Anti CCP antibodies are detected in approximately 50-60% patients of Rheumatoid arthritis usually after 3-6 months of symptoms
2. Prediction of severity of disease - Early Rheumatoid arthritis patients with Anti CCP positivity may develop a more erosive form of the disease as compared with Anti CCP negative patients
3. To differentiate elderly onset Rheumatoid arthritis from Polymyalgia rheumatica and erosive SLE

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 09, 2024, 10:19 AM.
Referred By	: Dr. Dr. X	Barcode No	: ZC667831
Sample Type	: Serum	Report Status	: Final Report

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

Complement Protein Concentration (C4)

C4 COMPLEMENT, SERUM *Immunoturbidimetric*	34.2	mg/dL	10 - 40

Interpretation:

Comments

Complement C4 deficiency results in the inability of Immune complexes to activate the complement pathway. This results in inability to generate peptides that clear the immune complexes or generate lytic activity. Hence these patients have increased susceptibility to infections especially with encapsulated microorganisms. C4 deficiency may be an etiologic factor in the development of autoimmune disease.

Increased Levels - Acute phase reaction due to inflammation, trauma & tissue necrosis.

Decreased Levels - Infancy, Genetic deficiency & Acquired deficiency as in SLE, Angioedema, Autoimmune hemolytic anemia and Autoimmune nephritis.

Dr. Dummy

Patient Name	: **Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 25, 2024, 06:05 PM.
Referred By	: Dr. Dr. X	Barcode No	: SI484451
Sample Type	: Serum	Report Status	: Final Report

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

Anti Nuclear Antibody (ANA) By IFA (HEP-2)

Anti Nuclear Antibody by IFA	Negative		Negative

Interpretation:
Guidelines (Sample screening Dilution - 1:100):

Negative : No Immunofluorescence
+ : Weak Positive
++ : Moderate Positive
+++ : Strong Positive
++++ : Very strong Positive

Test Description: Antinuclear antibodies (ANAs) are unusual antibodies, detectable in the blood, that have the capability of binding to certain structures within the nucleus of the cells. ANAs indicate the possible presence of autoimmunity & provide, therefore, an indication of autoimmune illness. Fluorescence tech. are frequently used to actually detect the antibodies in the cells, thus ANA testing is sometimes referred to as fluorescent antinuclear antibody test (FANA). The ANA test is a sensitive screening test used to detect autoimmune diseases

Technique: Indirect Immunofluorescence.
The BIOCHIP Slide is a combination of Hep-20-10 cells and primate liver and has the following advantages.
1. It is a global standard tech. with a natural antigen spectrum capable of detecting more than 30 diagnostically relevant auto antibodies.
2. Hep 20-10 cell lines contain 40% mitotic cells, facilitating easier identification of rare patterns.
3. If the test is negative, detectable level of auto antibodies is ruled out. In case of a positive result, autoantibodies against any one or in some cases simultaneously against more than one antigens may be present and further monospecific tests or panel of profiles can be used to determine the specific autoantibodies present.

NOTE- All weak positive (+) results may be repeated after 6 - 8 weeks.**Associated Tests:** Monospecific ELISA to define single antigens, ANA Immunoblot assay.
Abbreviations: SLE: Systemic Lupus Erythematosus, SCL: Scleroderma, MCTD: Mixed Connective Tissue Disease; CFS: Chronic Fatigue Syndrome; AIH: Autoimmune Hepatitis, PBC: Primary Bilary Cirrhosis, PM:Polymyositis, DM:Dermatomyositis, SS: Systemic sclerosis, RA:Rheumatoid Arthritis.
Please view next page for co-relation table including various single antigens with their Immunoflourescence patterns and clinical associations

Dr. Dummy

Patient Name	: **Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 25, 2024, 06:05 PM.
Referred By	: Dr. Dr. X	Barcode No	: SI484451
Sample Type	: Serum	Report Status	: Final Report

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

Location	Pattern	Target Antigen	Clinical Association
Nucleus	Homogeneous	Double strand DNA Histones Nucleosome, RNA,Single Strand DN	SLE Drug Induced Lupus, SLE , RA SLE, MCTD,RA, PM, DM, SS
	Speckled	Sm U1-snRNP SSA/Ro SSB/La Ku Cyclin1(PCNA) Mitosin/Cyclin II	SLE MCTD,SLE,RA, sharp syndrome Sjogren`s syndromes (SS)/SLE/Neonatal Lupus PM/DM/SLE/SS SLE/Overlap Syndromes DM
	Dense Fine Speckled(DFS)	Lens epithelium-derived growth factor (LEDGF), DNA binding transcription coactivator p75.(DFS-70)	Healthy individuals, Various Inflammatory conditions like atopic dermatitis, interstitial cystitis, Asthma.
	Centomeres	Proteins of Kinetochores	CREST syndrome, PSS limited form
	Nuclear Dots	Sp-100 , NDP53	PBC,Rheumatic Disease
	Nuclear Membrane	Lamins, gp210, p62	CFS,Collagenoses,PBC,AIH
Nucleolus	Nucleolar homogeneous	PM-Scl Scl-70	PM, DM, PSS(Diffuse) PSS(Diffuse)
	Nucleolar speckled	RNA-Polymerase I / NOR-90	Progressive Systemic Sclerosis(Diffuse)
	Nucleolar Pattern	Fibrillarin	Progressive Systemic Sclerosis(Diffuse)
Cytoplasm	Cytoplasmic speckled	Mitochondrial Lysosomal Golgi Complex Ribosome P Jo -1 SRP, PL12, TIF1-Gamma	PBC, Unknown SS/SLE/RA SLE Polymyositis (PM), PM/ DM, Myositis
	Cytoplasmic filament	F-Actin Vimentin Tropomyosin Cytoplasmic Rings & rods	AIH Unknown Unknown HCV Infection- on therapy
Cell Cycle (mitotic cells)	Centriole Mid-Body Spindle Fibres	-- -- --	Unknown Unknown Rheumatic Disease

Dr. Dummy

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	: 8053378/RCL7249218	Report Date	: May 25, 2024, 06:05 PM.
Referred By	: Dr. Dr. X	Barcode No	: YA608899
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*	6.0	-	4.5 - 8.0
Specific Gravity *Ion Exchange*	1.010	-	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

Dr. Dummy

Patient Name	**: Mr MR.DUMMY**		
DOB/Age/Gender	: 23 Y/Male	Sample Collected	: Apr 26, 2024, 01:00 PM
Patient ID / UHID	: 8053378/RCL7249218	Report Date	: May 25, 2024, 06:05 PM.
Referred By	: Dr. Dr. X	Barcode No	: YA608899
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

Terms and Conditions of Reporting

1. The presented findings in the Reports are intended solely for informational and interpretational purposes by the referring physician or other qualified medical professionals possessing a comprehensive understanding of reporting units, reference ranges, and technological limitations. The laboratory shall not be held liable for any interpretation or misinterpretation of the results, nor for any consequential or incidental damages arising from such interpretation.

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.

4. This report shall not be deemed valid or admissible for any medico-legal purposes.

5. The Customers assume full responsibility for apprising the Company of any factors that may impact the test finding. These factors, among others, includes dietary intake, alcohol, or medication / drug(s) consumption, or fasting. This list of factors is only representative and not exhaustive.

Name	Patient ID	Gender	Age
Mr MR.DUMMY	8053378	M	23

Health Advisory

Normal (N) Low (L) Borderline (BL) High (H)

Anemia Profile

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

Hemoglobin: 8 g/dL — LOW

Abnormal results may indicate :

Anemia.

Diet and Lifestyle Tips :

Eat iron rich foods as iron is essential for the production of hemoglobin. Iron-rich foods include meat, fish, eggs and oysters, beans, lentils, dark green leafy vegetables (spinach, watercress, curly kale), broccoli, iron fortified cereals and dried fruits (apricots, prunes and raisins).

Avoid drinking tea and coffee with meals, and foods with high phytic acid, such as whole grain cereals, as they can affect digestive absorption of iron from your diet.

Your body absorbs iron from plant-based foods better when you eat them with vitamin-C rich foods, such as oranges, strawberries, melons, peppers and tomatoes.