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

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

Stay Fit Ultra Full Body Checkup - Female

Complete Blood Count (CBC)

RBC Parameters			
Hemoglobin *Spectrophotometry*	13.2	g/dL	12.0 - 15.0
RBC Count *Electrical impedance*	**5.1**	10^6/µl	3.8 - 4.8
PCV *Calculated*	39.6	%	36 - 46
MCV *Calculated*	**77.8**	fl	83 - 101
MCH *Calculated*	**25.9**	pg	27 - 32
MCHC *Calculated*	33.2	g/dL	31.5 - 34.5
RDW (CV) *Calculated*	**16.5**	%	11.6 - 14.0
RDW-SD *Calculated*	37.9	fl	35.1 - 43.9
WBC Parameters			
TLC *Electrical impedance and microscopy*	4.8	10^3/µl	4 - 10
Differential Leucocyte Count			
Neutrophils *Flow-cytometry DHSS*	42	%	40-80
Lymphocytes *Flow-cytometry DHSS*	**45**	%	20-40
Monocytes *Flow-cytometry DHSS*	8	%	2-10
Eosinophils *Flow-cytometry DHSS*	5	%	1-6
Basophils *Flow-cytometry DHSS*	0	%	<2
Absolute Leukocyte Counts ***calculated***			
Neutrophils.	2.02	10^3/µl	2 - 7
Lymphocytes. *Calculated*	2.16	10^3/µl	1 - 3
Monocytes. *Calculated*	0.38	10^3/µl	0.2 - 1.0
Eosinophils. *Calculated*	0.24	10^3/µl	0.02 - 0.5
Basophils.	**0**	10^3/µl	0.02 - 0.5

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
Calculated			
Platelet Parameters			
Platelet Count *Electrical impedance and microscopy*	366	10^3/µl	150 - 410
Mean Platelet Volume (MPV) *Calculated*	9.4	fL	9.3 - 12.1
PCT *Calculated*	0.3	%	0.17 - 0.32
PDW *Calculated*	15.5	fL	8.3 - 25.0
P-LCR *Calculated*	29.7	%	18 - 50
P-LCC *Calculated*	109	10^9/L	44 - 140
Mentzer Index *Calculated*	15.25	%	> 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.

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

Test Description	Value(s)	Unit(s)	Reference Range
Erythrocyte Sedimentation Rate (ESR)			
ESR - Erythrocyte Sedimentation Rate *MODIFIED WESTERGREN*	**18**	mm/hr	0 - 12

Interpretation:
ESR is also known as Erythrocyte Sedimentation Rate. An ESR test is used to assess inflammation in the body. Many conditions can cause an abnormal ESR, so an ESR test is typically used with other tests to diagnose and monitor different diseases. An elevated ESR may occur in inflammatory conditions including infection, rheumatoid arthritis ,systemic vasculitis, anemia, multiple myeloma , etc. Low levels are typically seen in congestive heart failure, polycythemia ,sickle cell anemia, hypo fibrinogenemia , etc.

Reference- Dacie and lewis practical hematology

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

HbA1C (Glycosylated Haemoglobin)

Glycosylated Hemoglobin (HbA1c) *HPLC*	5.6	%	<5.7
Estimated Average Glucose *calculated.*	114.02	mg/dL	-

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

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

Test Description	Value(s)	Unit(s)	Reference Range
Glucose Fasting			
Glucose Fasting *Hexokinase*	87	mg/dL	70 - 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.

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

Test Description	Value(s)	Unit(s)	Reference Range
Liver Function Test (LFT)			
Bilirubin Total *diazonium salt*	0.67	mg/dL	0.2 - 1.2
Bilirubin Direct *Diazo Reaction*	0.24	mg/dL	0.0 - 0.5
Bilirubin Indirect *Calculation (T Bil - D Bil)*	0.43	mg/dL	0.1 - 1.0
SGOT/AST *Enzymatic {NADH (without P5P)}*	21	U/L	5 - 34
SGPT/ALT *Enzymatic {NADH (without P5P)}*	13	U/L	0 to 55
SGOT/SGPT Ratio *calculated*	1.62	-	-
Alkaline Phosphatase *paranitrophenyl phosphate*	72	U/L	40 - 150
Total Protein *Biuret*	7.6	g/dL	6.4 - 8.3
Albumin *BCG*	4.5	gm/dL	3.8 - 5.0
Globulin *Calculation (T.P - Albumin)*	3.1	g/dL	2.3 - 3.5
Albumin :Globulin Ratio *Calculation (Albumin/Globulin)*	1.45	-	1.0 - 2.1
Gamma Glutamyl Transferase (GGT) *Photometric*	17	U/L	9 to 36

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

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

Kidney Function Test (KFT)

Test Description	Value(s)	Unit(s)	Reference Range
Blood Urea *Calculated*	**14.124**	mg/dL	19 - 44.1
Bun *Urease*	**6.6**	mg/dL	7.0 - 18.7
Creatinine *kinetic alkaline picrate*	0.76	mg/dL	0.57 - 1.11
eGFR (CKD-EPI)	105.37	ml/min/1.73 sq m	Normal Or High: >= 90 Mild Or Decrease: 60-89 Mild To Moderate Decrease: 45-59 Mild To Severe Decrease: 30-44 Severe Decrease: 15-29 Kidney Failure: < 15
Bun/Creatinine Ratio *calculated*	**8.68**		12 - 20
Urea / Creatinine Ratio *Calculated*	**18.58**		25.68- 42.8
Uric Acid *Uricase*	3.2	mg/dL	2.6 - 6.0
Calcium Serum *Arsenazo III*	9.7	mg/dL	8.4 - 10.2
Phosphorus *phosphomolybdate.*	4.4	mg/dL	2.3 - 4.7
Sodium *Ion selective Electrode-Indirect.*	140	mmol/L	136 - 145
Potassium *Ion selective Electrode-Indirect.*	4.4	mmol/L	3.5 - 5.1
Chloride *Ion selective Electrode-Indirect.*	104	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 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.
"eGFR test is applicable for patients aged 18 years or more."

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

Test Description	Value(s)	Unit(s)	Reference Range
Lipid Profile			
Total Cholesterol *enzymatic CHOD-PAP*	157	mg/dL	<200
Triglycerides *Glycerol phosphate oxidase*	41	mg/dL	<150
HDL Cholesterol *cholesterol oxidase and peroxidase*	64	mg/dL	>40
Non HDL Cholesterol *Calculated*	93	mg/dL	<130
LDL Cholesterol *Calculated*	84.8	mg/dL	<100
V.L.D.L Cholesterol *Calculated*	8.2	mg/dL	< 30
Chol/HDL Ratio *Calculated*	**2.45**	Ratio	3.5 - 5.0
HDL/ LDL Ratio *Calculated*	0.75	Ratio	0.5 - 3.0
LDL/HDL Ratio *Calculated*	1.33	Ratio	-

Interpretation:
Lipid level assessments must be made following 9 to 12 hours of fasting, otherwise assay results might lead to erroneous interpretation. NCEP recommends of 3 different samples to be drawn at intervals of 1 week for harmonizing biological variables that might be encountered in single assays.

National Lipid Association Recommendations (NLA-2014)	Total Cholesterol (mg/dL)	Triglyceride (mg/dL)	LDL Cholesterol (mg/dL)	Non HDL Cholesterol (mg/dL)
Optimal	<200	<150	<100	<130
Above Optimal			100-129	130 - 159
Borderline High	200-239	150-199	130-159	160 - 189
High	>=240	200-499	160-189	190 - 219
Very High	-	>=500	>=190	>=220

HDL Cholesterol	
Low	High
<40	>=60

Risk Stratification for ASCVD (Atherosclerotic Cardiovascular Disease) by Lipid Association of India.

Risk Category	A. CAD with > 1 feature of high risk group
Extreme risk group	B. CAD with >1 feature of very high risk group of recurrent ACS (within 1 year) despite LDL-C <or = 50 mg/dl or poly vascular disease
Very High Risk	1.Established ASCVD 2.Diabetes with 2 major risk factors of evidence of end organ damage 3. Familial Homozygous Hypercholesterolemia
	1. Three major ASCVD risk factors 2. Diabetes with 1 major risk factor or no evidence

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	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.

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

Test Description	Value(s)	Unit(s)	Reference Range
Lipase			
Lipase *Spectrophotometry*	27	U/L	<67

Interpretation:
Pancreas is the major and primary source of serum lipase though lipases are also present in liver, stomach, intestine, WBC, fat cells and milk. In acute pancreatitis, serum lipase becomes elevated at the same time as amylase and remains high for 7-10 days. Increased
lipase activity rarely lasts longer than 14 days. Prolonged increase suggests poor prognosis or presence of a cyst. The combined use of serum lipase and serum amylase is effective in ruling out acute pancreatitis.

Increased levels
Acute & Chronic pancreatitis
Obstruction of pancreatic duct
Non pancreatic conditions like renal diseases, acute cholecystitis, intestinal obstruction, duodenal ulcer, alcoholism, diabetic ketoacidosis and following endoscopic retrograde cholangiopancreatography

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

Test Description	Value(s)	Unit(s)	Reference Range
Amylase			
Amylase *Serum,. 2-chloro-p-nitrophenyl-a-D-maltotrioside*	42	U/L	25 - 125

Interpretation:

1. Amylase levels are significantly increased in patients with acute pancreatitis, pancreatic duct obstruction, carcinoma pancreas, ovaries, or lungs, cholecystitis, macroamylasemia, renal disease, pancreatic pseudocyst, procedures like Endoscopic retrograde cholangiopancreatography and acute alcohol poisoning.
2. In acute pancreatitis, elevated amylase levels usually parallel lipase concentrations, although lipase levels may take a bit longer to rise than blood amylase levels and will remain elevated longer.
3. Amylase levels are raised in aspirin, diuretics, oral contraceptives, corticosteroids, indomethacin, ethyl alcohol and opiate intake

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
Iron Studies			
Iron *Ferrozine*	70	µg/dL	50 - 170
TIBC,(Total Iron Binding Capacity) *Calculated*	315	µg/dL	250 - 450
UIBC *Ferrozine*	245	µg/dL	70 - 310
Transferrin Saturation *Calculated*	22.22	%	14 - 50

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.

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

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

C-Reactive Protein (CRP), Quantitative

CRP (Quantitative) *Immunoturbidimetry*	1.0	mg/L	up to 5

Interpretation:
Increased CRP level:
1. A high or increasing amount of CRP in the blood suggests the presence of inflammation but will not identify its location or the cause.
2. Suspected bacterial infection—a high CRP level can provide indication that patient has an infection.
3. Chronic inflammatory disease—high levels of CRP suggest a flare-up if you have a chronic inflammatory disease or that treatment has not been effective.

If the CRP level is initially elevated and drops, it means that the inflammation or infection is subsiding and/or responding to treatment.

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

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

High Sensitivity C-Reactive Protein (Hs-CRP)

HIGHLY SENSITIVE C-REACTIVE PROTEIN (hs-CRP) *immunoturbidimetric*	0.67	mg/L	< 1.00

Interpretation:

Cardio CRP In mg/L	Cardiovascular Risk
<1	Low
1-3	Average
3-10	High
>10	Persistent elevation may represent Non cardiovascular inflammation

Note: To assess vascular risk, it is recommended to test hsCRP levels 2 or more weeks apart and calculate the average

Comments:
High sensitivity C Reactive Protein (hsCRP) significantly improves cardiovascular risk assessment as it is a strongest predictor of future coronary events. It reveals the risk of future Myocardial infarction and Stroke among healthy men and women, independent of traditional risk factors. It identifies patients at risk of first Myocardial infarction even with low to moderate lipid levels. The risk of recurrent cardiovascular events also correlates well with hsCRP levels. It is a powerful independent risk determinant in the prediction of incident Diabetes.

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

Rheumatoid Factor (RF), Quantitative

Test Description	Value(s)	Unit(s)	Reference Range
RHEUMATOID FACTOR, Quantitative *Immunoturbidimetry*	20.0	IU/mL	Negative <30 Weakly positive 30 to 50 Positive >50

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.

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

Test Description	Value(s)	Unit(s)	Reference Range
Vitamin B12 / Cyanocobalamin			
Vitamin - B12 *CMIA*	**154**	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."

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

Test Description	Value(s)	Unit(s)	Reference Range
Vitamin D 25 Hydroxy			
Vitamin D 25 - Hydroxy *CMIA*	**24.83**	ng/mL	Deficiency:<10ng/ml Insufficient:10-30ng/ml Sufficient:>30-100ng/ml Hypervitaminosis:>100ng/ml

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

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
Thyroid Profile Total			
Triiodothyronine (T3) *CMIA*	131.8	ng/dL	35 - 193
Total Thyroxine (T4) *CMIA*	9.63	µg/dL	4.87 - 11.2
Thyroid Stimulating Hormone (Ultrasensitive) *CMIA*	1.87	µlU/mL	0.35 - 4.94

Interpretation:

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

Note:
TSH levels are subject to circadian variation, reaching peak levels between 2-4 am. and at a minimum between 6-10 pm. The variation is of 50 %, hence time of the day has influence on the measured serum TSH concentrations.

Clinical Use:
- Diagnose Hypothyroidism and Hyperthyroidism
- Monitor T4 replacement or T4 suppressive therapy
- Qunatify TSH levels in the subnormal range

Increased Levels : Primary hypothyroidism, Subclinical hypothyroidis, TSH dependent Hyperthyroidism, Thyroid hormone resistance
Decreased Levels: Grace disease, Autonomous thyroid hormone secretion, TSH deficiency

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)

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

Luteinizing Hormone (LH)

Luteinising Hormone-LH *CMIA*	7.42	mIU/mL	Follicular Phase 1.80 - 11.78 Mid-Cycle Peak 7.59 - 89.08 Luteal Phase 0.56 - 14.00 Postmenopausal Females Without HRT 5.16 - 61.99

Interpretation:
Clinical Use
· Diagnosis of gonadal function disorders
· Diagnosis of pituitary disorders
Increased levels
· Primary hypogonadism
· Gonadotropin secreting pituitary tumors
Decreased levels
· Hypothalamic GnRH deficiency
· Pituitary LH deficiency
· Ectopic steroid hormone production
· GnRH analog treatment

Follicle Simulating Hormone (FSH)

Follicle Stimulating Hormone-FSH *CMIA*	8.83	mIU/mL	Normally Menstruating Females Follicular Phase 3.03 - 8.08 Mid-Cycle Peak 2.55 - 16.69 Luteal Phase 1.38 - 5.47 Postmenopausal Females 26.72 - 133.41

Interpretation:
Clinical Use
1. Diagnosis of gonadal function disorders
2. Management and treatment of infertility in both genders
Increased levels
1. Primary hypogonadism
2. Gonadotropin secreting pituitary tumors
3. Menopause
Decreased levels
1. Hypothalamic GnRH deficiency
2. Pituitary FSH deficiency
3. Ectopic steroid hormone production

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

Prolactin (PRL)

Prolactin *CMIA*	23.96	ng/mL	5.18 - 26.53

Interpretation:
Male:
Hyperprolactinaemia in males may be associated with decreased libido, impotence, infertility, gynaecomastia.

Female:
Prolactin secretion from pituitary shows significant diurnal, episodic and cyclical variations

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

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

Immunoglobulin E (IgE Total)

IMMUNOGLOBULIN IgE TOTAL SERUM	150.48		

Interpretation:

REFERANCE Ranges	Unit
Age group	IU/mL
Neonates	<1.5
Infants in 1st year of life	<15
Children aged 1-5 years	<60
Children aged 6-9 years	<90
Children aged 10-15 years	<200
Adults	<100

The level of serum IgE rises during childhood and reaches adult levels during the teens. IgE is the mediator of the allergic response. Patients with atopic disease, including allergic asthama, allergic rhinitis, and atopic dermatitis commonly have moderately elevated serum IgE levels. Total serum IgE levels may also be elevated in the presence of some clinical conditions that are not related to allergy. These clinical conditions include parasitic infections, immunodeficiency states, autoimmune diseases, Hodgkins disease, bronchopulmonary aspergillosis, IgE myeloma, and Sezary syndrome.

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

Urine Routine and Microscopic Examination

Test Description	Value(s)	Unit(s)	Reference Range
Physical Examination			
Volume *visual*	20	mL	
Colour *visual*	Pale Yellow		Pale yellow
Transparency *visual*	Clear		Clear
Deposit *visual*	Absent		Absent
Chemical Examination			
Reaction (pH) *Double Indicator*	6.0		5.5-8.0
Specific Gravity *Ion Exchange.*	1.015	0	1.010 - 1.030
Urine Glucose (sugar) *Oxidase / Peroxidase*	Negative		Negative
Urine Protein (Albumin) *bromophenol blue*	Negative		Negative
Urine Ketones (Acetone) *Legals Test*	Negative		Negative
Blood *Peroxidase Hemoglobin*	Negative		Negative
Leucocyte esterase *amino acid aster*	Negative		Negative
Bilirubin Urine *Diazotized dicholoroaniline*	Negative		Negative
Nitrite *Griless Test*	Negative		Negative
Urobilinogen *Ehrlichs Test*	Normal		Normal
Microscopic Examination			
Pus Cells (WBCs) *WET MOUNT*	1-2	/hpf	0-5
Epithelial Cells *WET MOUNT*	2-4	/hpf	0-4
Red blood Cells *WET MOUNT*	Absent	/hpf	Absent
Crystals *WET MOUNT*	Absent		Absent
Cast *WET MOUNT*	Absent		Absent
Yeast Cells *WET MOUNT*	Absent		Absent

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
Amorphous deposits *WET MOUNT*	Absent		Absent
Bacteria *WET MOUNT*	Absent		Absent
Protozoa *WET MOUNT*	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

Glucose: Uncontrolled diabetes mellitus can lead to presence of glucose in urine. Other causes include pregnancy, hormonal disturbances, liver disease and certain medications.

Ketones: Uncontrolled diabetes mellitus can lead to presence of ketones in urine. Ketones can also be seen in starvation, frequent vomiting, pregnancy and strenuous exercise.

Blood: Occult blood can occur in urine as intact erythrocytes or haemoglobin, which can occur in various urological, nephrological and bleeding disorders.

Leukocytes: An increase in leukocytes is an indication of inflammation in urinary tract or kidneys. Most common cause is bacterial urinary tract infection.

Nitrite: Many bacteria give positive results when their number is high. Nitrite concentration during infection increases with length of time the urine specimen is retained in bladder prior to collection.

pH: The kidneys play an important role in maintaining acid base balance of the body. Conditions of the body producing acidosis/ alkalosis or ingestion of certain type of food can affect the pH of urine.

Specific gravity: Specific gravity gives an indication of how concentrated the urine is. Increased specific gravity is seen in conditions like dehydration, glycosuria and proteinuria while decreased specific gravity is seen in excessive fluid intake, renal failure and diabetes insipidus.

Bilirubin: In certain liver diseases such as biliary obstruction or hepatitis, bilirubin gets excreted in urine.

Urobilinogen: Positive results are seen in liver diseases like hepatitis and cirrhosis and in cases of haemolytic anaemia.

*** End Of Report ***

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