

Patient Name : Demo Patient Name
Age / Sex : 70 Y / M
Referred By : DEMO HOSPITAL
Centre : HOD Head Office

Lab No : Demo Visit No
Registration On : 10-Sep-24 20:36
Patient ID : UHID.DEMO.001

CBC			EDTA Whole Blood Sample	
Accession No: DEMO_BARCODE		Collected On: 10-Sep-24 20:36	Received On: 12-Sep-24 12:27	Approved On: 12-Sep-24 17:42
Observation	Result	Unit	Biological Ref. Interval	Method
Hemoglobin	13.5	gm/dL	13.0 - 17.0	Photometric Measurement
Total RBC	4.32	million/ μ L	4.5 - 5.5	Coulter Principle
Platelet Count	185	X 10^3 / μ L	150 - 410 x 10^3 / μ L	Impedance
Total Leucocyte Count (WBC)	5.83	X 10^3 / μ L	4.0 - 10.0	Flow Cytometry
Differential Leucocyte Count (DLC)				
Neutrophils	58.4	%	40 - 80	Flow Cytometry
Lymphocytes	31.9	%	20 - 40	Flow Cytometry
Monocytes	6.3	%	2 - 10	Flow Cytometry
Eosinophils	2.9	%	1 - 6	Flow Cytometry
Basophils	0.5	%	0 - 1	Flow Cytometry
Absolute Neutrophil Count	3.4	X 10^3 / μ L	2.0 - 7.5	Flow Cytometry
Absolute Lymphocyte Count	1.86	X 10^3 / μ L	1.0 - 4.0	Flow Cytometry
Absolute Monocyte Count	0.37	X 10^3 / μ L	0.2 - 1.0	Flow Cytometry
Absolute Eosinophil Count	0.17	X 10^3 / μ L	0.02 - 0.5	Flow Cytometry
Absolute Basophil Count	0.04	X 10^3 / μ L	0.00 - 0.30	Flow Cytometry
Indices				
Hematocrit (PCV)	42.7	%	40 - 50	Calculated
Mean Corpuscular Volume (MCV)	98.9	fL	83 - 101	Calculated
Mean Corp. Hemoglobin (MCH)	31.1	pg	27 - 32	Calculated
MCH Concentration (MCHC)	31.6	g/dl	31.5 - 34.5	Calculated
Red Cell Dist. Width (RDW-CV)	12.7	%	11.5 - 14.5	Calculated
Red Cell Dist. Width (RDW-SD)	46.7	fL	39 - 46	Calculated
Mean Platelet Volume (MPV)	12.0	fL	7.5 - 12.0	Calculated
P-LCC	73	10^9 /L	30-90	SF Cube
P-LCR	39.46	%	11-45	Calculated
Neutrophil-Lymphocyte Ratio (NLR)	1.83	Ratio		Calculated
Mentzer Index	22.89	Index		Calculated

Remarks: Please correlate with clinical conditions

Glucose Fasting			Sodium Fluoride Sample	
Accession No: DEMO_BARCODE		Collected On: 10-Sep-24 20:36	Received On: 12-Sep-24 12:34	Approved On: 12-Sep-24 14:06
Observation	Result	Unit	Biological Ref. Interval	Method
Blood Sugar Fasting	113	mg/dL	70 - 100	GOD/POD, colorimetric

Sample Type: Sodium Fluoride; A blood sample will be taken after 8 - 12 hours of fasting.

Method: Glucose oxidase hydrogen peroxidase

Technology: Dry Chemistry (VITROS MicroSlide, MicroSensor & Intellitect Technology)

Analyzer: Fully Automated Integrated Biochemistry & ImmunoAssay Analyzer: VITROS 5600

Remarks: Please correlate clinically

Note: Blood glucose level is maintained by a very complex integrated mechanism involving a critical interplay of the release of hormones and action of enzymes on key metabolic pathways. If postprandial glucose is lower than fasting glucose, it is termed as postprandial reactive hypoglycemia (PRH). The possible cause of PRH are high insulin sensitivity, exaggerated response of insulin and glucagon-like peptide 1, defects in counter-regulation, very lean individuals, anxious individuals, after massive weight reduction, women with lower body overweight physical activity prior test, hypoglycemic medication, deliberately eating less or eat a non-carbohydrate meal before testing.



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Lipid Profile

Serum Sample

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Observation	Result	Unit	Biological Ref. Interval	Method
Total Cholesterol	99	mg/dL	<200	Enzymatic (CHE/CHO/POD)
Triglyceride	84	mg/dL	<150	Enzymatic, Endpoint
HDL Cholesterol	32	mg/dL	>45	Direct Measure, PTA / MgCl ₂
VLDL Cholesterol	17	mg/dL	5-40	Calculated
LDL Cholesterol	50	mg/dL	<100	Friedewald Formula (Calculated)
Non-HDL Cholesterol	67	mg/dL	<130	Calculated
LDL / HDL Ratio	1.56	Ratio	1.5-3.5	Calculated
TC / HDL Ratio	3.09	Ratio	3-5	Calculated

Clinical Decision Limits*	Optimal	Above Optimal	Borderline High	High	Very High
Triglycerides	<150	-	150-199	200-499	>=500
Total Cholesterol	<200	200-239	-	>=239	-
LDL Cholesterol	<100	100-129	130-159	160-189	>=189
HDL Cholesterol	>45	-	40-45	<40	-
Non HDL Cholesterol**	<130	130 - 159	160 - 189	190 - 219	>=220

* Clinical Decision Limits are suggested from Tietz Fundamentals Of Clinical Chemistry And Molecular Diagnostics 8th Edition

** Suggested from National Lipid Association Recommendations for Patient Centered Management of Dyslipidemia: Part 1—Full Report (Volume 9, Issue 2, P129-169, March 01,2015, Terry A. Jacobson, MD et al.

Analyzer: Fully Automated Integrated Biochemistry and ImmunoAssay Analyzer: VITROS 5600

Technology: Dry Chemistry (VITROS MicroSlide, MicroSensor & Intellicheck Technology)

Reports of Lipid Profile are best obtained with 10 hours fasting.

Clinical Significance:

- Triglyceride: Very high levels of Triglyceride can be indicative of a significantly higher risk of coronary vascular disease. Elevation of triglyceride can be seen with fasting less than 12 hours, obesity medication, alcohol intake, diabetes mellitus or pancreatitis.
- Total Cholesterol: its fractions and triglycerides are the important plasma lipids identifying cardiovascular risk factor and in the management of cardiovascular disease. Values above 220 mg/dl are associated with increased risk of CHD regardless of HDL & LDL value.
- HDL - Cholesterol: Low levels of HDL are associated with an increased risk of coronary vascular disease even in the face of desirable levels of Cholesterol and LDL-Cholesterol
- LDL - Cholesterol: levels can be strikingly altered by thyroid, renal and liver disease as well as hereditary factors. In case Triglyceride levels are more than 400 mg/dl, the patient is advised for a direct-LDL Cholesterol test.

Remarks: Please correlate results clinically.

Liver Function Test

Serum Sample

Accession No: DEMO_BARCODE **Collected On:** 10-Sep-24 20:36 **Received On:** 12-Sep-24 12:32 **Approved On:** 12-Sep-24 14:06

Observation	Result	Unit	Biological Ref. Interval	Method
Total Protein	7.8	g/dL	6.5-7.8	Biuret, No Serum Blank
Albumin	4.7	g/dL	4.2 - 5.0	Bromocresol Green
Globulin	3.1	gm/dL	2.0-3.5	Calculated
A/G Ratio	1.52	Ratio	1.5-2.5	Calculated
Total Bilirubin	0.93	mg/dL	0.2-1.3	Azobilirubin/dyphylline
Conjugated Bilirubin	0.22	mg/dL	<0.3	Calculated
Unconjugated Bilirubin	0.71	mg/dL	<1.1	Spectrophotometry
SGOT (AST)	29	U/L	18-39	Enzymatic Colorimetric
SGPT (ALT)	27	U/L	4-50	UV with P5P
SGOT/SGPT Ratio	1.07	Ratio		Calculated
Alkaline Phosphatase	41	U/L	50 - 116	PNPP, AMP buffer
Gamma Glutamyl Transferase	13	U/L	13 - 109	G-glutamyl-p-nitroanilide



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Clinical Significance of LFT: e clinical suspicion of liver disease usually leads to the measurement of the liver function tests (LFT) which include measurement of several enzymes, serum bilirubin and albumin. These parameters may point to an underlying pathological process and direct further investigation. The aim of investigation in patients with suspected liver disease are: ·To detect hepatic abnormality · Measurement of severity of liver damage · Identify the specific cause ·Investigate possible complications

Technology: Dry Chemistry (VITROS MicroSlide, MicroSensor and Intellicheck Technology)
Analyzer: Fully Automated Biochemistry and ImmunoAssay Analyzer: VITROS 5600

Advise: Please correlate results clinically.

Kidney Function Test

Serum Sample

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Observation	Result	Unit	Biological Ref. Interval	Method
Blood Urea	24	mg/dL	19 - 43	Urease, Colorimetric
Blood Urea Nitrogen	11.21	mg/dL	9-20	Calculated
Creatinine	0.8	mg/dL	0.6-1.25	Enzymatic
Estimated GFR	90.50	mL/min/1.73m2		Calculated By CKD-EPI(2021)
Uric Acid	3.3	mg/dL	3.5 - 8.5	Uricase , Colorimetric
Calcium	9.5	mg/dL	8.4 - 10.2	Arsenazo III
Phosphorus	3.1	mg/dL	2.5 - 4.5	Phosphomolybdate reduction
BUN/Creatinine Ratio	14.01	Ratio		Calculated
Urea/Creatinine Ratio	30	Ratio		Calculated
Electrolytes				
Sodium	132	mmol/L	137-145	ISE Direct
Potassium	4.9	mmol/L	3.5 - 5.1	ISE Direct
Chloride	101	mmol/L	98 - 107	ISE Direct

Classification of eGFR by UK Kidney Association (2017):
eGFR (ml/min/1.73 m2) GFR Category Significance
 >90 G1 Normal Renal Function
 60-90 G2 Mild Impairment of Renal Function
 45-59 G3a Impaired Kidney Function
 30-44 G3b Impaired Kidney Function
 15-29 G4 Significant Impairment of Renal Function
 <15 G5 End-Stage Renal Failure (ESRF)

Technology: Dry Chemistry (VITROS MicroSlide, MicroSensor and Intellicheck Technology)
Remarks: Please correlate results clinically.

ESR

EDTA Whole Blood Sample

Accession No: DEMO_BARCODE **Collected On:** 10-Sep-24 20:36 **Received On:** 12-Sep-24 12:27 **Approved On:** 12-Sep-24 13:49

Observation	Result	Unit	Biological Ref. Interval	Method
ESR	3	mm/hr	<20	Modified Westergren



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Clinical Notes for ESR:

Increased ESR is seen in:

- In any chronic infection
- Active rheumatic fever
- Acute myocardial infection
- Nephrosis
- All type of shocks

Decreased ESR is seen in:

- Newborn infants
- Polycythemia
- Congestive heart failure
- Sickel cell anaemia

Remarks: Please correlate results with clinical conditions.



This is a Demo Signature
and the doctor's signature should appear here

In case of any unexpected or alarming results, please contact us immediately for re-confirmation, clarifications, and rectifications, if needed.



Scan to Validate