



TEST REPORT

Lab. Id	: CM73288501	Hosp. UHID	: 700880585	Reg. Date	: 04-Feb-2026 / 08:50 AM
Name	: MR. MANJUNATH S			Collection	: 04-Feb-2026 / 09:05 AM
Age/Gender	: 46Y-11M / Male			Received	: 04-Feb-2026 / 09:40 AM
Collected At	: Aster CMI Hospital			Report	: 04-Feb-2026 / 10:44 AM
Referral Dr	: Dr.TEAM CARDIOLOGY	Report Status	: Final	Print	:
Bed	OPD				
	:				

Biochemistry

Investigation	Observed Value	Unit	Biological Ref. Interval	Specimen
BLOOD UREA NITROGEN	16.1	mg/dl	6.0-20.0	Serum
Method:Calculated				
RENAL/KIDNEY FUNCTION TEST, BASIC				
UREA	34.5	mg/dl	12.8-42.8	Serum
Method:Urease/Glutamate dehydrogenase				
CREATININE	1.12	mg/dl	0.9-1.3	Serum
Method:Jaffe's kinetic (IFCC-IDMS)				
URIC ACID	7	mg/dl	3.4-7.0	Serum
Method:Uricase, Colorimetric				
SODIUM	140.4	mmol/L	136-145	Serum
Method:Indirect ISE				
POTASSIUM	4.52	mmol/L	3.5-5.1	Serum
Method:Indirect ISE				
CHLORIDE	102.6	mmol/L	98-107	Serum
Method:Indirect ISE				

Interpretation:

The renal profile aids in assessing kidney function, hydration status, electrolyte balance and acid-base regulation.

- Urea** and **BUN** reflect protein catabolism and renal excretory capacity; elevated levels commonly indicate reduced glomerular filtration, dehydration, high-protein intake, or gastrointestinal bleeding, while low values may be seen in severe liver dysfunction or malnutrition, also influenced by protein intake and catabolic states. Urea estimation can be affected by hemolysis and prolonged tourniquet use.
- Creatinine** is a more specific marker of glomerular filtration; increased concentrations suggest impaired renal clearance or substantial muscle injury, whereas reduced values often reflect low muscle mass. Creatinine by Jaffe method is interfered by ketones, bilirubin, ascorbate, and some antibiotics.
- Bicarbonate** assay assesses the body's metabolic acid-base status.
- Among electrolytes, **Sodium** levels help evaluate disorders of water balance. Hyponatraemia may arise from dilutional states such as SIADH, heart failure or renal salt loss, while hypernatraemia usually indicates water deficit or excessive sodium intake.
- Potassium** is key for neuromuscular and cardiac function; hyperkalaemia frequently occurs in renal failure, metabolic acidosis or due to medications, whereas hypokalaemia is associated with gastrointestinal losses, diuretic use or metabolic alkalosis. Sodium & Potassium: hemolysis increases potassium; indirect ISE methods may be affected by high lipids or proteins (pseudohyponatraemia.)
- Chloride** generally parallels sodium and assists in interpreting acid-base disturbances; hypochloraemia often accompanies vomiting or metabolic alkalosis, while hyperchloraemia may be seen in dehydration, renal tubular acidosis or excess chloride administration.

Overall, the pattern of these analytes should be interpreted together and correlated with clinical findings for accurate assessment of renal and electrolyte status.

Reference: Tietz Textbook of Clinical Chemistry and Molecular Diagnostics, 6th ed. (Elsevier).



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Verified By:248174

Verified Date : 04-Feb-2026 /10:43


Dr. Jyotirling Savle
MBBS, MD(Pathology)
Associate Consultant

--- End Of Report ---

Important Instructions:

- Test results released pertain to specimen submitted.
- All results are dependent upon the quality of specimen received in the laboratory.
- Lab investigation is only a tool to facilitate in concluding a diagnosis , and should be clinically correlated by the referring physician.
- Certain tests may require further testing, at an additional cost for derivation of exact value. kindly submit request with in 2 days, post reporting.
- Sample repeats are accepted on request of Referring Physician with in sample stability period.
- Test results may show inter-laboratory variation.
- Results are for informational purposes , and not intended to replace the care of medical practitioner, and does not recommend self-diagnosis and/or self-medication.
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- Test results are not valid for medico legal purposes.
- The courts/forum at Cochin/Bangalore shall have exclusive Jurisdiction in all disputes/claims concerning the request and/or result of test(s).
- Contact customer care 9680396803 for all queries related to test results

Patient/Client is advised to contact the laboratory immediately, for any possible remedial action, If test result is alarming or unexpected



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Biochemistry

Investigation	Observed Value	Unit	Biological Ref. Interval	Specimen
LIPID PROFILE				
TOTAL CHOLESTEROL Method:CHOD-POD	136	mg/dl	Desirable: <200 Borderline-high: 200 - 239 High: >240	Serum
TRIGLYCERIDES Method:GPO-POD	173	mg/dl	Normal: <150 Borderline-high: 150 - 199 High: 200 - 499 Very high: >500	Serum
HDL CHOLESTEROL Method:Homogenous Enzymatic Colorimetric assay using EMSE	38.2	mg/dl	Desirable: >60 Borderline: 40 - 60 Low (High risk): <40	Serum
LDL CHOLESTEROL Method:Homogenous Enzymatic Colorimetric assay using EMSE	78.5	mg/dl	Optimal: <100 Near Optimal: 100 - 129 Borderline High: 130 - 159 High: 160 - 189 Very High: >190	Serum
VLDL- Cholesterol Method:Calculated	34.6	mg/dl	<30	Serum
TOTAL CHOLESTEROL/HDLC RATIO Method:Calculated	3.56	Ratio	Optimal : <3.5 Good : 3.5-4.5 High risk : >5.0	Serum
LDLC/HDLC RATIO Method:Calculated	2.05	Ratio	Optimal : <2.0 Acceptable : 2.0-3.0 High risk : >3.5	Serum

Interpretation

Note: VLDL is a calculated parameter is found to be inaccurate if Triglyceride levels are below 100mg/dl or above 400 mg/dl.

A lipid profile evaluates major plasma lipids to assess cardiovascular and metabolic health.

Total Cholesterol (T.Chol) reflects the sum of cholesterol carried by all lipoproteins and provides an overview of lipid status.

Triglycerides (TGL) circulate largely within VLDL particles and rise with metabolic disorders such as insulin resistance.

HDL cholesterol represents the “protective” fraction involved in reverse cholesterol transport; higher values correlate with reduced atherosclerotic risk.

LDL cholesterol, the primary atherogenic particle, transports cholesterol to peripheral tissues and is the main target in cardiovascular risk management. Along with LDL levels even the oxidative status can also influence the development of atherosclerosis.

Very-Low-Density Lipoprotein (VLDL) carries endogenous triglycerides and contributes to LDL formation.

The **TC/HDL ratio** is used as an integrated risk marker, with higher ratios indicating increased atherogenic potential.



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The **LDL/HDL ratio** expresses the balance between atherogenic and protective lipoproteins, with higher values indicating increased cardiovascular risk. Together, these parameters help identify dyslipidemia, guide therapeutic decisions, and monitor response to lifestyle or pharmacologic interventions. It is advisable to get the lipid profile done every 5 years in all individuals above 20 years of age. In addition to the above basic lipid profile, ApoB, Lp(a), hsCRP, LP-PLA2, Homocysteine may be considered in patients with moderate risk for atherosclerosis.

Reference

- **Harper's Illustrated Biochemistry**, 32nd (or latest) Edition – Chapter on Lipoprotein Metabolism and Clinical Disorders of Lipid Metabolism.
- **Lehninger Principles of Biochemistry**, 8th (or latest) Edition – Sections on lipid transport and lipoproteins.
- **Tietz Textbook of Clinical Chemistry and Molecular Diagnostics**, 6th (or latest) Edition – Chapters on lipid analysis, lipoproteins, and cardiovascular risk markers.
- **Clinical Biochemistry: Metabolic and Clinical Aspects** (Marshall & Bangert) – Lipid and lipoprotein metabolism chapters.

Verified By: 502296

Verified Date : 04-Feb-2026 / 10:49

Dr. Jyotirling Savle
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