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Excellence In Health Care

Sagepath Labs Pvt. Ltd.

Lab Address:- # Plot No. 564 , 1st floor , Buddhanagar , Near Sai Baba Temple Peerzadiguda Boduppal Hyderabad, Telangana.
ICMR Reg .No. SAPALAPVLHT (Covid -19)

REPORT

Name	: Mr. PARTHASARATHY	Sample ID	: A0093488
Age/Gender	: 64 Years/Male	Reg. No	: 0312402270009
Referred by	: Dr. SELF	SPP Code	: SPL-CV-172
Referring Customer	: V CARE MEDICAL DIAGNOSTICS	Collected On	: 27-Feb-2024 09:02 AM
Primary Sample	: Whole Blood	Received On	: 27-Feb-2024 12:18 PM
Sample Tested In	: Serum	Reported On	: 28-Feb-2024 09:32 AM
Client Address	: Kimtee colony ,Gokul Nagar,Tarnaka	Report Status	: Final Report

CHROMATOGRAPHY

VITAMIN PROFILE (14)

Test Name				
Vitamin B2/Riboflavin	45.00	nmol/L	5-50	LCMS/MS
Method :				
Vitamin B3/Nicotinic Acid	7.12	ug/mL	0.5-8.91	LCMS/MS
Method :				
Vitamin B5/Pantothenic	43.60	ug/L	37 - 147	LCMS/MS
Method :				
Vitamin A	65	µg/mL	30.0-110.0	HPLC/LCMS

Interpretation

Vitamin A / Retinol is a fat soluble vitamin essential for vision at low light intensities. It is needed to maintain certain specialized cell membranes, skeletal maturation & to participate in the formation of light sensitive rods in the retina.

The deficiency is frequent in the poorer regions of the world and is a common cause of blindness due to corneal damage. Vitamin A deficiency is seen where the diet has lacked dairy produce & vegetables for a long time (nutritional) or in malabsorption syndromes. The earliest sign of Vitamin A deficiency is Night blindness. Toxicity is produced by intake of excessive vitamin A supplements specially in children who ingest >6 mg/day of vitamin A and in adults who ingest >15 mg/day. It has also been noted in explorers who ate polar bear livers which has exceptionally high levels of vitamin A.

This assay is useful for diagnosing Vitamin A deficiency & toxicity and for monitoring therapy. It evaluates persons with intestinal malabsorption of lipids. Vitamin A deficiency can leads to blindness whereas chronic intoxication can affect several organs. Known HIV positive patients with Vitamin A deficiency show increased disease progression and mortality.

Method :				
Vitamin B1	71.00	ug/L	20.00 - 100.00	HPLC
Method :				
Vitamin B6	41.20	ng/mL	10-60	ELISA
Method :				
VITAMIN E	15.90	mg/L	15-18	HPLC/LCMS

Interpretation:
Vitamin E or Alpha-tocopherol (body's main form of vitamin) function as antioxidant which protects vitamin A, C and red blood cells from oxidative damage caused by free radicals. It has been recognized as necessary for neurologic and reproductive functions, for prevention of retinopathy in premature infants. Alpha-tocopherol also induces inhibition of cell proliferation, platelete aggregation, and monocyte adhesion, which are thought to be the results of direct interaction of alpha-tocopherol with cell components. Alpha-tocopherol reduces inflammatory mediator production. Premature and low birth weight infants are particularly susceptible to development of vitamin E deficiency, because placental transfer is poor and infants have such limited adipose tissue where much of the vitamins is normally stored. Signs of deficiency include irritability, edema and hemolytic anemia. Although symptoms of vitamin E deficiency are rare in children and adults, deficiency can occur in some conditions. Excess vitamin E intake usually is achieved only by dietary supplementation. A comprehensive review of tolerance and safety of vitamin E suggested that intakes upto 3000mg/d were safe and reversible side effects of gastrointestinal symptoms, increased creatinuria, and impairment of blood coagulation are s
een at intakes of 1000-3000 mg/d. However as noted earlier, long term use of intakes greater than 400mg/d may cause increased mortality.

Method :

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CHROMATOGRAPHY

VITAMIN PROFILE (14)

Test Name				
Vitamin K	0.19	ng/mL	0.13 - 1.19	LCMS/MS

Interpretation:
Vitamin K assay measures the principal form of vitamin K i.e. K1 :Phylloquinone which found predominantly in green leafy vegetables, margarines and plant oils. Vitamin K promotes clotting of the blood, is required for the conversion of several clotting factors and prothombin, and is of growing interest in bone metabolism. Vitamin K plays important role in the deposition of ionic calcium needed for proper blood coagulation and bone formation. Although vitamin K deficiency in the adults is uncommon, the risk is increased for fat malabsorption states such as bile duct obstruction,cystic fibrosis, chronic pancreatitis and liver disease. Risk also increased by the use of drugs that interfere with vitamin K metabolism, such as warfarin, cepahlosporin. Defective blood coagulation and demonstration of abnormal noncarboxylated prothrombin are at present the only well-established signs of vitamin K deficiency. The use of high doses of naturally occurring vitamin K (K1 and K2) appears to have no untoward effect; however menadione(K3) treatment can lead to formation of erythrocyte cytoplasmic inclusions known as Heinz bodies and hemolytic anemia. With severe hemolysis, increase bilirubin formation and undeveloped capacity for its conjugation may produce kernicterus in the newborn.

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Primary Sample	: Whole Blood	Received On	: 27-Feb-2024 12:18 PM
Sample Tested In	: Serum	Reported On	: 28-Feb-2024 09:47 AM
Client Address	: Kimtee colony ,Gokul Nagar,Tarnaka	Report Status	: Final Report

CLINICAL BIOCHEMISTRY

VITAMIN PROFILE (14)

Test Name	Results	Units	Ref. Range	Method
25 Hydroxy Vitamin D2 and D3				
25 Hydroxy VIT D2 Ergocalciferol	2.52	ng/mL	Specific reference range for Vitamin D2 is not available.	LCMS
25 Hydroxy VIT D3 Cholecalciferol	37.33	ng/mL	Specific reference range for Vitamin D3 is not available.	LCMS
25 - Hydroxy Vitamin D	39.85	ng/mL	<20.0-Deficiency 20.0-<30.0-Insufficiency 30.0-100.0-Sufficiency >100.0-Potential Intoxication	CLIA

Interpretation:

- Vitamin D helps your body absorb calcium and maintain strong bones throughout your entire life. Your body produces vitamin D when the sun's UV rays contact your skin. Other good sources of the vitamin include fish, eggs, and fortified dairy products. It's also available as a dietary supplement.
- Vitamin D must go through several processes in your body before your body can use it. The first transformation occurs in the liver. Here, your body converts vitamin D to a chemical known as 25-hydroxyvitamin D, also called calcidiol.
- The 25-hydroxy vitamin D test is the best way to monitor vitamin D levels. The amount of 25-hydroxyvitamin D in your blood is a good indication of how much vitamin D your body has. The test can determine if your vitamin D levels are too high or too low.
- .The test is also known as the 25-OH vitamin D test and the calcidiol 25-hydroxycholecalcifoerol test. It can be an important indicator of osteoporosis (bone weakness) and rickets (bone malformation).

Those who are at high risk of having low levels of vitamin D include:

- people who don't get much exposure to the sun
- older adults
- people with obesity.
- dietary deficiency

Increased Levels:

- Vitamin D Intoxication

Method : LCMS

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CLINICAL BIOCHEMISTRY

VITAMIN PROFILE (14)

Test Name	Results	Units	Ref. Range	Method
Vitamin B7 (Biotin)				
Vitamin B7 (Biotin)	6.98	nmol/min/mL	> 5.0 Normal < 5.0 Deficient	

- Biotin, vitamin B7, or vitamin H, is a water-soluble vitamin.
- The vitamin plays a role in the transferring of carbon dioxide in the metabolism of fat, carbohydrate and protein by functioning as an enzyme cofactor.
- Deficiency in the vitamin may result in seborrheic dermatitis, alopecia, myalgia, hyperesthesia, and conjunctivitis.
- Disorders of biotin metabolism can be acquired or congenital.
- The lack of biotin-dependent pyruvate carboxylase, propionyl-CoA carboxylase, methylcrotonyl-CoA carboxylase, and acetyl-CoA carboxylase can lead to the life-threatening disorder of multiple carboxylase deficiency.

Method : Enzyme Assay

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REPORT

Name	: Mr. PARTHASARATHY	Sample ID	: A0093494
Age/Gender	: 64 Years/Male	Reg. No	: 0312402270009
Referred by	: Dr. SELF	SPP Code	: SPL-CV-172
Referring Customer	: V CARE MEDICAL DIAGNOSTICS	Collected On	: 27-Feb-2024 09:02 AM
Primary Sample	: Whole Blood	Received On	: 27-Feb-2024 12:18 PM
Sample Tested In	: Whole Blood EDTA	Reported On	: 27-Feb-2024 12:58 PM
Client Address	: Kimtee colony ,Gokul Nagar,Tarnaka	Report Status	: Final Report

HAEMATOLOGY

Test Name	Results	Units	Ref. Range	Method
Complete Blood Picture(CBP)				
Haemoglobin (Hb)	13.3	g/dL	13-17	Cynmeth Method
Haematocrit (HCT)	41.4	%	40-50	Calculated
RBC Count	**4.31**	10^12/L	4.5-5.5	Cell Impedence
MCV	96	fl	81-101	Calculated
MCH	30.9	pg	27-32	Calculated
MCHC	**32.1**	g/dL	32.5-34.5	Calculated
RDW-CV	**14.1**	%	11.6-14.0	Calculated
Platelet Count (PLT)	362	10^9/L	150-410	Cell Impedance
Total WBC Count	7.2	10^9/L	4.0-10.0	Impedance
Differential Leucocyte Count (DC)				
Neutrophils	58	%	40-70	Cell Impedence
Lymphocytes	35	%	20-40	Cell Impedence
Monocytes	04	%	2-10	Microscopy
Eosinophils	03	%	1-6	Microscopy
Basophils	0	%	1-2	Microscopy
Absolute Neutrophils Count	4.18	10^9/L	2.0-7.0	Impedence
Absolute Lymphocyte Count	2.52	10^9/L	1.0-3.0	Impedence
Absolute Monocyte Count	0.29	10^9/L	0.2-1.0	Calculated
Absolute Eosinophils Count	0.22	10^9/L	0.02-0.5	Calculated
Absolute Basophil lCount	0.00	10^9/L	0.0-0.3	Calculated
Morphology	Normocytic normochromic blood picture			PAPs Staining

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Swarnabala.M
DR.SWARNA BALA
MD PATHOLOGY

REPORT

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Age/Gender	: 64 Years/Male	Reg. No	: 0312402270009
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Referring Customer	: V CARE MEDICAL DIAGNOSTICS	Collected On	: 27-Feb-2024 09:02 AM
Primary Sample	: Whole Blood	Received On	: 27-Feb-2024 12:18 PM
Sample Tested In	: Plasma-NaF(F), Serum	Reported On	: 27-Feb-2024 04:44 PM
Client Address	: Kimtee colony ,Gokul Nagar,Tarnaka	Report Status	: Final Report

CLINICAL BIOCHEMISTRY

Test Name	Results	Units	Ref. Range	Method
Glucose Fasting (F)	**101**	mg/dL	70-100	GOD-POD

Interpretation of Plasma Glucose based on ADA guidelines 2018

Diagnosis	FastingPlasma Glucose(mg/dL)	2hrsPlasma Glucose(mg/dL)	HbA1c(%)	RBS(mg/dL)
Prediabetes	100-125	140-199	5.7-6.4	NA
Diabetes	> = 126	> = 200	> = 6.5	>=200(with symptoms)

Reference: Diabetes care 2018:41(suppl.1):S13-S27

Vitamin- B12 (cyanocobalamin)	337	pg/mL	211-911	CLIA

Interpretation:
This test is most often done when other blood tests suggest a condition called megaloblastic anemia. Pernicious anemia is a form of megaloblastic anemia caused by poor vitamin B12 absorption. This can occur when the stomach makes less of the substance the body needs to properly absorb vitamin B12.
Causes of vitamin B12 deficiency include:Diseases that cause malabsorption
1.Lack of intrinsic factor, a protein that helps the intestine absorb vitamin B12
2.Above normal heat production (for example, with hyperthyroidism)
An increased vitamin B12 level is uncommon in:
1.Liver disease (such as cirrhosis or hepatitis)
2.Myeloproliferative disorders (for example, polycythemia vera and chronic myelogenous leukemia)

Folic Acid (Vitamin B9)	18.6	ng/mL	Deficient:0.35-3.37 Indeterminate:3.38-5.38 Normal:>5.38	CLIA

Interpretation:
Folic acid is a type of B vitamin.This test is done to check for folic acid deficiency.
Folic acid helps form red blood cells and produce DNA that stores genetic codes. Taking the right amount of folic acid before and during pregnancy helps prevent neural tube defects, such as spina bifida.
Women who are pregnant or planning to become pregnant should take at least 600 micrograms (mcg) of folic acid every day. Some women may need to take more if they have a history of neural tube defects in earlier pregnancies.
Lower-than-normal folic acid levels may indicate:

- Poor diet
- Malabsorption syndrome (for example, celiac sprue)
- Malnutrition

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CLINICAL BIOCHEMISTRY

Test Name	Results	Units	Ref. Range	Method
Kidney Profile-KFT				
Creatinine -Serum	0.80	mg/dL	0.70-1.30	Sarcosine oxidase
Urea-Serum	21.1	mg/dL	17.1-49.2	Glutamate dehydrogenase+Calculation
Blood Urea Nitrogen (BUN)	9.86	mg/dL	8.0-23.0	Calculated
BUN / Creatinine Ratio	12.33		6 - 22	
Uric Acid	**9.0**	mg/dL	3.5-7.2	Uricase
Sodium	139	mmol/L	136-145	ISE Direct
Potassium	4.0	mmol/L	3.5-5.1	ISE Direct
Chloride	99	mmol/L	98-108	ISE Direct

Interpretation:

- The kidneys, located in the retroperitoneal space in the abdomen, are vital for patient health. They process several hundred liters of fluid a day and remove around two liters of waste products from the bloodstream. The volume of fluid that passes though the kidneys each minute is closely linked to cardiac output. The kidneys maintain the body's balance of water and concentration of minerals such as sodium, potassium, and phosphorus in blood and remove waste by-products from the blood after digestion, muscle activity and exposure to chemicals or medications. They also produce renin which helps regulate blood pressure, produce erythropoietin which stimulates red blood cell production, and produce an active form of vitamin D, needed for bone health.

Correlate Clinically.

Result rechecked and verified for abnormal cases
Laboratory is NABL Accredited

*** End Of Report ***

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