

REPORT

Name	: Mrs. SARALA DEVI	Sample ID	: 24863871
Age/Gender	: 83 Years/Female	Reg. No	: 0312310070019
Referred by	: Dr. SELF	SPP Code	: SPL-CV-172
Referring Customer	: V CARE MEDICAL DIAGNOSTICS	Collected On	: 07-Oct-2023 09:02 AM
Primary Sample	: Whole Blood	Received On	: 07-Oct-2023 01:03 PM
Sample Tested In	: Serum	Reported On	: 08-Oct-2023 09:51 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
<i>Method :</i>				
Vitamin B3/Nicotinic Acid	6.23	ug/mL	0.5-8.91	LCMS/MS
<i>Method :</i>				
Vitamin B5/Pantothenic	45.60	ug/L	37 - 147	LCMS/MS
<i>Method :</i>				
Vitamin A	45.6	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	0.98	ug/L	0.20-2.00	HPLC
<i>Method :</i>				
Vitamin B6	54.60	ng/mL	10-60	ELISA
<i>Method :</i>				
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 seen 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 :



Dr. Vaishnavi
DR. VAISHNAVI
MD BIOCHEMISTRY

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Primary Sample	: Whole Blood	Received On	: 07-Oct-2023 01:03 PM
Sample Tested In	: Serum	Reported On	: 07-Oct-2023 05:15 PM
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	3.52	ng/mL	Specific reference range for LCMS Vitamin D2 is not available.	
25 Hydroxy VIT D3 Cholecalciferol	33.98	ng/mL	Specific reference range for LCMS Vitamin D3 is not available.	
25 - Hydroxy Vitamin D	37.5	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-hydroxycholecalciferol 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

Vitamin B7 (Biotin)

Vitamin B7 (Biotin)	8.21	nmol/min/mL	> 5.0 Normal < 5.0 Deficient
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- 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

*** End Of Report ***



Dr. Vaishnavi
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MD BIOCHEMISTRY

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Referring Customer	: V CARE MEDICAL DIAGNOSTICS	Collected On	: 07-Oct-2023 09:02 AM
Primary Sample	: Whole Blood	Received On	: 07-Oct-2023 01:03 PM
Sample Tested In	: Whole Blood EDTA	Reported On	: 07-Oct-2023 01:20 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)	12.0	g/dL	12-15	Cynmeth Method
Haematocrit (HCT)	35.2	%	40-50	Calculated
RBC Count	3.95	10 ¹² /L	4.5-5.5	Cell Impedence
MCV	89	fl	81-101	Calculated
MCH	30.3	pg	27-32	Calculated
MCHC	34.0	g/dL	32.5-34.5	Calculated
RDW-CV	14.0	%	11.6-14.0	Calculated
Platelet Count (PLT)	150	10 ⁹ /L	150-410	Cell Impedence
Total WBC Count	7.1	10 ⁹ /L	4.0-10.0	Impedence
Differential Leucocyte Count (DC)				
Neutrophils	58	%	40-70	Cell Impedence
Lymphocytes	34	%	20-40	Cell Impedence
Monocytes	05	%	2-10	Microscopy
Eosinophils	03	%	1-6	Microscopy
Basophils	0	%	1-2	Microscopy
Absolute Neutrophils Count	4.12	10 ⁹ /L	2.0-7.0	Impedence
Absolute Lymphocyte Count	2.41	10 ⁹ /L	1.0-3.0	Impedence
Absolute Monocyte Count	0.36	10 ⁹ /L	0.2-1.0	Calculated
Absolute Eosinophils Count	0.21	10 ⁹ /L	0.02-0.5	Calculated
Absolute Basophil ICount	0.00	10 ⁹ /L	0.0-0.3	Calculated
Morphology	Normocytic normochromic blood picture			PAPs Staining



*TESTS CONDUCTED @ CENTRAL LAB, HYDERABAD

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Swarnabala . M
DR.SWARNA BALA
MD PATHOLOGY

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CLINICAL BIOCHEMISTRY

VITAMIN PROFILE (14)

Test Name	Results	Units	Ref. Range	Method
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Vitamin- B12 (cyanocobalamin) **1041.5** pg/mL 110-800 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

- Lack of intrinsic factor, a protein that helps the intestine absorb vitamin B12
- Above normal heat production (for example, with hyperthyroidism)

An increased vitamin B12 level is uncommon in:

- Liver disease (such as cirrhosis or hepatitis)
- Myeloproliferative disorders (for example, polycythemia vera and chronic myelogenous leukemia)

Folic Acid (Vitamin B9) 15.65 ng/mL Deficient:0.35-3.37 CLIA
Indeterminate:3.38-5.38
Normal:>5.38

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

Correlate Clinically.

Result rechecked and verified for abnormal cases

Laboratory is NABL Accredited

*** End Of Report ***



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