

**REPORT**

Name	: Mr. H K MUKHERJEE	Sample ID	: A0590548
Age/Gender	: 70 Years/Male	Reg. No	: 0312408050025
Referred by	: Dr. T DURGA PRASAD	SPP Code	: SPL-CV-172
Referring Customer	: V CARE MEDICAL DIAGNOSTICS	Collected On	: 05-Aug-2024 12:08 PM
Primary Sample	: Whole Blood	Received On	: 05-Aug-2024 02:09 PM
Sample Tested In	: Serum	Reported On	: 05-Aug-2024 05:10 PM
Client Address	: Kimtee colony ,Gokul Nagar,Tarnaka	Report Status	: Final Report

**CLINICAL BIOCHEMISTRY**

**VCARE FEVER PROFILE-2**

Test Name	Results	Units	Ref. Range	Method
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<b>C-Reactive protein-(CRP)</b>	<b>36.01</b>	mg/L	Upto:6.0	Immunoturbidimetry
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**Interpretation:**

C-reactive protein (CRP) is produced by the liver. The level of CRP rises when there is inflammation throughout the body. It is one of a group of proteins called acute phase reactants that go up in response to inflammation. The levels of acute phase reactants increase in response to certain inflammatory proteins called cytokines. These proteins are produced by white blood cells during inflammation.

A positive test means you have inflammation in the body. This may be due to a variety of conditions, including:

- Connective tissue disease
- Heart attack
- Infection
- Inflammatory bowel disease (IBD)
- Lupus
- Pneumonia
- Rheumatoid arthritis



*Vaishnavi*  
**DR.VAISHNAVI**  
**MD BIOCHEMISTRY**

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Primary Sample	: Whole Blood	Received On	: 05-Aug-2024 02:09 PM
Sample Tested In	: Whole Blood EDTA	Reported On	: 05-Aug-2024 03:55 PM
Client Address	: Kimtee colony ,Gokul Nagar,Tarnaka	Report Status	: Final Report

**HAEMATOLOGY**

**VCARE FEVER PROFILE-2**

Test Name	Results	Units	Ref. Range	Method
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**MALARIA ANTIGEN (VIVAX & FALCIPARUM)**

<b>Plasmodium Vivax Antigen</b>	Negative		Negative	Immuno Chromatography
<b>Plasmodium Falciparum</b>	Negative		Negative	Immuno Chromatography

**Note :**

- In the gametogony stage, P.Falciparum may not secreted. Such carriers may show falsely negative result.
- This test is used to indicate therapeutic response. Positive test results 5 - 10 days post treatment indicate the possibility of a resistant strain of malaria.

**Comments :**

Malaria is protozoan parasitic infection, prevalent in the Tropical & Subtropical areas of the world. Four species of plasmodium paraties are responsible for malaria infections in human viz. P.Falciparum, p.Vivax, P.Ovale & P.malariae. Falciparum infections are associateed with Cerebral malaria and drug resistance where as vivex infection is associated with high rate of infectivity and relapse. Differentiation between P.Falciparum and P.Vivex is utmost importance for better patient management and speedy recovery.

Result rechecked and verified for abnormal cases

\*\*\* End Of Report \*\*\*

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Swannabala - M  
DR.SWARNA BALA  
MD PATHOLOGY

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Primary Sample	: Whole Blood	Received On	: 05-Aug-2024 02:09 PM
Sample Tested In	: Whole Blood EDTA	Reported On	: 05-Aug-2024 04:33 PM
Client Address	: Kimtee colony , Gokul Nagar, Tarnaka	Report Status	: Final Report

**HAEMATOLOGY**

**VCARE FEVER PROFILE-2**

Test Name	Results	Units	Ref. Range	Method
<b>COMPLETE BLOOD COUNT (CBC)</b>				
Haemoglobin (Hb)	11.7	g/dL	13-17	Cynmeth Method
RBC Count	3.88	10 <sup>12</sup> /L	4.5-5.5	Cell Impedance
Haematocrit (HCT)	34.2	%	40-50	Calculated
MCV	88	fl	81-101	Calculated
MCH	30.1	pg	27-32	Calculated
MCHC	34.2	g/dL	32.5-34.5	Calculated
RDW-CV	13.5	%	11.6-14.0	Calculated
Platelet Count (PLT)	138	10 <sup>9</sup> /L	150-410	Cell Impedance
Total WBC Count	3.4	10 <sup>9</sup> /L	4.0-10.0	Impedance
Neutrophils	70	%	40-70	Cell Impedance
Absolute Neutrophils Count	2.38	10 <sup>9</sup> /L	2.0-7.0	Impedance
Lymphocytes	22	%	20-40	Cell Impedance
Absolute Lymphocyte Count	0.75	10 <sup>9</sup> /L	1.0-3.0	Impedance
Monocytes	06	%	2-10	Microscopy
Absolute Monocyte Count	0.2	10 <sup>9</sup> /L	0.2-1.0	Calculated
Eosinophils	02	%	1-6	Microscopy
Absolute Eosinophils Count	0.07	10 <sup>9</sup> /L	0.02-0.5	Calculated
Basophils	00	%	1-2	Microscopy
Absolute Basophil ICount	0.00	10 <sup>9</sup> /L	0.0-0.3	Calculated
<b>Morphology</b>				
WBC	Mild Leucopenia			
RBC	Normocytic normochromic			
Platelets	Mild Thrombocytopenia			Microscopy

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Sample Tested In	: Whole Blood EDTA	Reported On	: 05-Aug-2024 04:34 PM
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**HAEMATOLOGY**

**VCARE FEVER PROFILE-2**

Test Name	Results	Units	Ref. Range	Method
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<b>Erythrocyte Sedimentation Rate (ESR)</b>	<b>16</b>	mm/hr	14 or less	Westergren method
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**Comments :** ESR is an acute phase reactant which indicates presence and intensity of an inflammatory process.It is never diagnostic of a specific disease. It is used to monitor the course or response to treatment of certain diseases. Extremely high levels are found in cases of malignancy, hematologic diseases, collagen disorders and renal diseases.



*Swannabala - M*  
**DR.SWARNA BALA**  
MD PATHOLOGY

**REPORT**

Name	: Mr. H K MUKHERJEE	Sample ID	: A0590546, A0590548
Age/Gender	: 70 Years/Male	Reg. No	: 0312408050025
Referred by	: Dr. T DURGA PRASAD	SPP Code	: SPL-CV-172
Referring Customer	: V CARE MEDICAL DIAGNOSTICS	Collected On	: 05-Aug-2024 12:08 PM
Primary Sample	: Whole Blood	Received On	: 05-Aug-2024 02:09 PM
Sample Tested In	: Plasma-NaF(R), Serum	Reported On	: 05-Aug-2024 04:58 PM
Client Address	: Kimtee colony ,Gokul Nagar,Tarnaka	Report Status	: Final Report

**CLINICAL BIOCHEMISTRY**

Test Name	Results	Units	Ref. Range	Method
<b>Glucose Random (RBS)</b>	96	mg/dL	70-140	Hexokinase (HK)

Interpretation of Plasma Glucose based on ADA guidelines 2018

Diagnosis	Fasting Plasma Glucose(mg/dL)	2hrs Plasma 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

- The random blood glucose if it is above 200 mg/dL and the patient has increased thirst, polyuria, and polyphagia, suggests diabetes mellitus.
- As a rule, two-hour glucose samples will reach the fasting level or it will be in the normal range.

**TSH -Thyroid Stimulating Hormone** <0.01  $\mu$ U/mL 0.35-5.5 CLIA

**Pregnancy & Cord Blood**

TSH (Thyroid Stimulating Hormone ( $\mu$ U/mL))	
First Trimester	: 0.24-2.99
Second Trimester	: 0.46-2.95
Third Trimester	: 0.43-2.78
Cord Blood	: 2.3-13.2

- TSH is synthesized and secreted by the anterior pituitary in response to a negative feedback mechanism involving concentrations of FT3 (free T3) and FT4 (free T4). Additionally, the hypothalamic tripeptide, thyrotropin-releasing hormone (TRH), directly stimulates TSH production.
- TSH interacts with specific cell receptors on the thyroid cell surface and exerts two main actions. The first action is to stimulate cell reproduction and hypertrophy. Secondly, TSH stimulates the thyroid gland to synthesize and secrete T3 and T4
- The ability to quantitate circulating levels of TSH is important in evaluating thyroid function. It is especially useful in the differential diagnosis of primary (thyroid) from secondary (pituitary) and tertiary (hypothalamus) hypothyroidism. In primary hypothyroidism, TSH levels are significantly elevated, while in secondary and tertiary hypothyroidism, TSH levels are low
- TRH stimulation differentiates secondary and tertiary hypothyroidism by observing the change in patient TSH levels. Typically, the TSH response to TRH stimulation is absent in cases of secondary hypothyroidism, and normal to exaggerated in tertiary hypothyroidism
- Historically, TRH stimulation has been used to confirm primary hyperthyroidism, indicated by elevated T3 and T4 levels and low or undetectable TSH levels. TSH assays with increased sensitivity and specificity provide a primary diagnostic tool to differentiate hyperthyroid from euthyroid patients.

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**CLINICAL BIOCHEMISTRY**

Test Name	Results	Units	Ref. Range	Method
<b>Kidney Profile-KFT</b>				
Creatinine -Serum	0.92	mg/dL	0.70-1.30	Jaffes Kinetic
Urea-Serum	37.7	mg/dL	17.1-49.2	Calculated
Blood Urea Nitrogen (BUN)	17.62	mg/dL	8.0-23.0	Calculated
BUN / Creatinine Ratio	19.15		6 - 22	
Uric Acid	6.8	mg/dL	3.5-7.2	Uricase
Sodium	144	mmol/L	135-150	ISE Direct
Potassium	4.2	mmol/L	3.5-5.0	ISE Direct
Chloride	105	mmol/L	94-110	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 through 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.

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**CLINICAL BIOCHEMISTRY**

**VCARE FEVER PROFILE-2**

Test Name	Results	Units	Ref. Range	Method
<b>Liver Function Test (LFT)</b>				
Bilirubin(Total)	0.6	mg/dL	0.2-1.2	Diazo
Bilirubin (Direct)	0.1	mg/dL	0.0 - 0.3	Diazo
Bilirubin (Indirect)	0.5	mg/dL	0.2-1.0	Calculated
Aspartate Aminotransferase (AST/SGOT)	<b>89</b>	U/L	5-48	IFCC UV Assay
Alanine Aminotransferase (ALT/SGPT)	5	U/L	0-55	IFCC with out (P-5-P)
Alkaline Phosphatase(ALP)	60	U/L	30-120	Kinetic PNPP-AMP
Gamma Glutamyl Transpeptidase (GGTP)	23	U/L	15-85	IFCC
Protein - Total	<b>6.0</b>	g/dL	6.4-8.2	Biuret
Albumin	<b>3.3</b>	g/dL	3.4-5.0	Bromocresol Green (BCG)
Globulin	2.7	g/dL	2.0-4.2	Calculated
A:G Ratio	1.22	%	0.8-2.0	Calculated
SGOT/SGPT Ratio	17.80			

**Alanine Aminotransferase(ALT)** is an enzyme found in liver and kidneys cells. ALT helps create energy for liver cells. Damaged liver cells release ALT into the bloodstream, which can elevate ALT levels in the blood.

**Aspartate Aminotransferase (AST)** is an enzyme in the liver and muscles that helps metabolizes amino acids. Similarly to ALT, elevated AST levels may be a sign of liver damage or liver disease.

**Alkaline phosphate (ALP)** is an enzyme present in the blood. ALP contributes to numerous vital bodily functions, such as supplying nutrients to the liver, promoting bone growth, and metabolizing fat in the intestines.

**Gamma-glutamyl Transpeptidase (GGTP)** is an enzyme that occurs primarily in the liver, but it is also present in the kidneys, pancreas, gallbladder, and spleen. Higher than normal concentrations of GGTP in the blood may indicate alcohol-related liver damage. Elevated GGTP levels can also increase the risk of developing certain types of cancer.

**Bilirubin** is a waste product that forms when the liver breaks down red blood cells. Bilirubin exits the body as bile in stool. High levels of bilirubin can cause jaundice - a condition in which the skin and whites of the eyes turn yellow- and may indicate liver damage.

**Albumin** is a protein that the liver produces. The liver releases albumin into the bloodstream, where it helps fight infections and transport vitamins, hormones, and enzymes throughout the body. Liver damage can cause abnormally low albumin levels.

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Sample Tested In	: Serum	Reported On	: 05-Aug-2024 07:15 PM
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**IMMUNOLOGY & SEROLOGY**

**VCARE FEVER PROFILE-2**

Test Name	Results	Units	Ref. Range	Method
<b>Widal Test (Slide Test)</b>				
Salmonella typhi O Antigen	<1:20		1:80 & Above Significant	
Salmonella typhi H Antigen	<1:20		1:80 & Above Significant	
Salmonella paratyphi AH Antigen	<1:20		1:80 & Above Significant	
Salmonella paratyphi BH Antigen	<1:20		1:80 & Above Significant	



**DR. RUTURAJ MANIKLAL KOLHAPURE**  
MD, MICROBIOLOGIST



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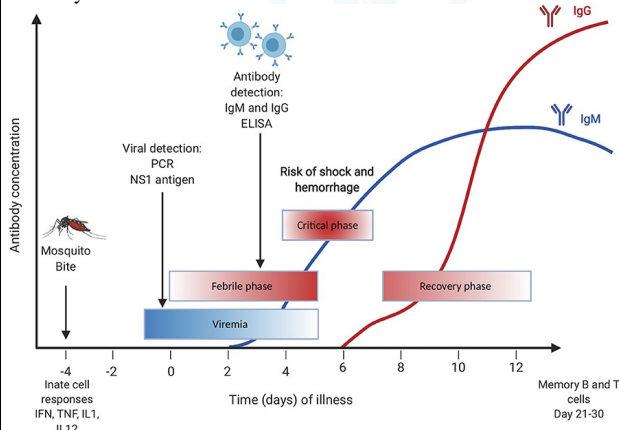
**IMMUNOLOGY & SEROLOGY**

**VCARE FEVER PROFILE-2**

Test Name	Results	Units	Ref. Range	Method
<b>Dengue Profile-Elisa</b>				
Dengue IgG Antibody	0.44	S/CO	< 0.8 : Negative 0.8-1.1 : Equivocal ≥ 1.1 : Positive	ELISA
Dengue IgM Antibody	0.43	S/CO	< 0.8 : Negative 0.8-1.1 : Equivocal ≥ 1.1 : Positive	ELISA
Dengue NS1 Antigen	0.46	S/Co	< 0.8~ : Negative 0.8-1.1 : Equivocal > 1.1~ : Positive	ELISA

**Interpretation:**

Dengue viruses belong to the family Flaviviridae and have 4 subtypes ( 1-4). Dengue virus is transmitted by the mosquito Aedes aegypti and Aedes albopictus, widely distributed in Tropical and Subtropical areas of the world. Dengue is considered to be the most important arthropod borne viral disease due to the human morbidity and mortality it causes. The disease may be subclinical, self limiting, febrile or may progress to a severe form of Dengue hemorrhagic fever or Dengue shock syndrome.



- Note: 1. Recommended test is NS1 Antigen by ELISA in the first 5 days of fever. After 7-10 days of fever, the recommended test is Dengue fever antibodies IgG & IgM by ELISA  
2. Cross reactivity is seen in the Flavivirus group between Dengue virus, Murray Valley encephalitis, Japanese encephalitis, Yellow fever & West Nile viruses

\*\*\* End Of Report \*\*\*



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MD, MICROBIOLOGIST

Correlate Clinically.

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