Dr. Manoj Kumar Jagarlamudi
MS Orthopeadics (FIJR)
రోబోటిక్ మోకాలు మార్పిడి,
ఆర్థ్రోస్కోపి, ట్రామా నిపుణులు
Sr. Orthopeadic Surgeon in Srikara Hospitals

ID : N25452
Name : Dr M.neela Devi (F, 31y)
Referred By : Dr. Pujitha Chowdary Duggirala

Sample Collected on : 08-Nov-2025 08:40 PM
Report Approved on : 08-Nov-2025 08:48 PM
Report Out on : 08-Nov-2025 08:48 PM

TEST PARAMETER	RESULT	BIOLOGICAL REF. INTERVAL
	HAEMATOLOGY	
Complete Blood Count - CBC		
Haemoglobin (Hb)	12.3 Gms %	Male : 13.0 - 17.0 Female : 12.0 - 15.0
Total WBC Count	10,500 Cells/cu mm	4,000 - 11,000 cells/cu mm
Neutrophils	67 %	40 - 75 %
Lymphocytes	28 %	20 - 40 %
Eosinophils	02 %	1 - 6 %
Monocytes	03 %	2 - 10 %
Total Red Cell Count (RBC)	4.44 Million Cells/cu mm	Women: 3.8 - 4.8 Men : 4.5 - 5.5
Platelets Count	3.59 lakh/cu mm	1.50 - 4.10 lakh/cu mm
Haematocrit (PCV)	39.4 %	Women: 36 - 47 (%) Men: 40 - 52 (%)
Mean Corpuscular Volume (MCV)	88.9 fL	75 - 95
Mean Corpuscular Haemoglobin (MCH)	27.8 pg	26 - 32
Mean Corpuscular Haemoglobin Concentration (MCHC)	31.2 %	31 - 35 %

---- END OF REPORT -----

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NAVATA CLINIC
Inspiring Wellness...

NAME	: DR. M.NEELA DEVI	REFERRED BY	: SELF	VISIT NO	: VNHA25031825
AGE	: 31Y 0M 0D	NAVATA CLINIC		COLLECTED ON	: 08-11-2025 20:14
GENDER	: Female			RECEIVED ON	: 08-11-2025 20:26
OP / IP / DG #	:			APPROVED ON	: 08-11-2025 21:27
				REPORT STATUS	: Final Report

Test Name	Result	Biological Ref. Interval	Unit
BIOCHEMISTRY			
TSH, Thyroid Stimulating Hormone *(Serum)*			
TSH, Thyroid Stimulating Hormone *CLIA*	2.600	0.55 - 4.78	µIU/mL

Interpretation:

The following potential sources of variation should be considered while interpreting thyroid hormone results:
1. Circadian variation in TSH secretion: peak levels are seen between 2-4 am. Minimum levels seen between 6-10 am. This variation may be as much as 50% thus, influence of sampling time needs to be considered for clinical interpretation.
2. Total T3 and T4 levels are seen to have physiological rise during pregnancy and in patients on steroid treatment
3. Circulating forms of T3 and T4 are mostly reversibly bound with Thyroxine binding globulins (TBG), and to a lesser extent with albumin and Thyroid binding Pre-Albumin. Thus the conditions in which TBG and protein levels alter such as chronic liver disorders, pregnancy, excess of estrogens, androgens, anabolic steroids and glucocorticoids may cause misleading total T3, total T4 and TSH interpretations.
4. T4 may be normal in the presence of hyperthyroidism under the following conditions : T3 thyrotoxicosis, Hypoproteinemia related reduced binding, in presence of drugs (eg Phenytoin, Salicylates etc)
5. Neonates and infants have higher levels of T4 due to increased concentration of TBG
6. TSH levels may be normal in central hypothyroidism, recent rapid correction of hypothyroidism or hyperthyroidism, pregnancy, phenytoin therapy etc.
7. TSH values of <0.03 uIU/mL must be clinically correlated to evaluate the presence of a rare TSH variant in certain individuals which is undetected by conventional methods.
8. Presence of Autoimmune disorders may lead to spurious results of thyroid hormones
9. Various drugs can lead to interference in test results

It is recommended to evaluate unbound fractions, that is free T3 (fT3) and free T4 (fT4) for clinic-pathologic correlation, as these are the metabolically active forms.

Vitamin B12 *(Serum)*			
Vitamin B12 *ECLIA*	205.00	191 - 771	pg/mL

Interpretation:

Vitamin B12 also referred to as cobalamin is a water soluble vitamin. The uptake in the gastro intestinal track depends on intrinsic factor, which is synthesised by gastric parietal cells. Vit B12 deficiency results in megaloblastic anaemia, peripheral neuropathy, dementia and depression

Deficiency state can be due to - Lack of intrinsic factor due to autoimmune atrophic gastritis, mal-absorption due to gastrostomy, Inflammatory bowel disease, dietary deficiency (strict vegans).

Increased levels can be due to - VIT B12 supplement intake, polycythaemia Vera.

Vitamin D, 25-Hydroxy *(Serum)*			
Vitamin D, 25-Hydroxy *ECLIA*	**20.3 L**	Deficient: <=20 Insufficiency: 20-29 Desirable: >=30-100 Toxicity: >100	ng/ml

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GENDER	: Female			RECEIVED ON	: 09-11-2025 16:23
OP / IP / DG #	:			APPROVED ON	: 09-11-2025 17:38
				REPORT STATUS	: Final Report

Test Name	Result	Biological Ref. Interval	Unit
Cortisol PM *(Serum)*			
Cortisol PM	3.10	2.47-11.9	ug/dL

Interpretation:

Cortisol is a steroid hormone secreted by adrenal cortex

.

Elevated cortisol levels seen in:

1. Cushing syndrome due to primary adrenal disease (adenoma, carcinoma or nodular hyperplasia), secondary to excess of ACTH pituitary adenoma.
2. Stress

Decreased cortisol levels seen in:

1. Addison disease-primary adrenal insufficiency
2. Secondary adrenal insufficiency
3. Pituitary insufficiency

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Test Name	Result	Biological Ref. Interval	Unit
Iron Studies Profile			
Iron Binding Capacity - Total (TIBC) *(Serum)*			
Iron *FerroZine Colorimetric Assay*	**45.0 L**	59-158	µg/dL
Unsaturated Iron Binding Capacity (UIBC) *Direct determination with FerroZine*	**366.0 H**	125 - 345	µg/dL
Iron Binding Capacity - Total (TIBC) *Calculation*	411.0	228-428	µg/dL
Transferrin Saturation Index (TSI) *Calculation*	**11.0 L**	16-45	

Kindly Correlate Clinically

Interpretation:

Iron is an essential trace mineral element which forms an important component of hemoglobin, metallocompounds and Vitamin A. Deficiency of iron, leads to microcytic hypochromic anemia. The toxic effects of iron are deposition of iron in various organs of the body and hemochromatosis. Total iron-binding capacity (TIBC) is an essential test used for the diagnosis of iron deficiency anemias and other disorders of iron metabolism. Iron binding capacity is the capacity of transferrin to bind with iron. Iron binding capacity is of two types, TIBC and unsaturated iron-binding capacity (UIBC). TIBC is the total of serum iron and UIBC. When iron stores are depleted, the transferrin levels increase in the blood. As only one-third of transferrin is saturated with iron, so the transferrin present in serum has an extra binding capacity. This is unsaturated iron-binding capacity.

Increases in iron-binding capacity are observed with the following:

Iron deficiency states
Acute liver damage
Acute and chronic blood loss
Late pregnancy
Progesterone birth control pills

Decreases in iron-binding capacity are associated with the following:

Hemochromatosis
Hemosiderosis
Thalassemia
Hyperthyroidism
Nephrotic syndrome
Anemia of chronic diseases **Transferrin Saturation** occurs in Idiopathic hemochromatosis and Transfusional hemosiderosis where no unsaturated iron binding capacity is available for iron mobilization. Similar condition is seen in congenital deficiency of Transferrin.