DEPARTMENT OF LABORATORY SCIENCES

Paras Hospitals Gurugram

Patient Name:	**Mr. Hemang Huria**	**Reg No**	61490	Sample Date:	16/02/2021 12:18PM
Age/Gender:	**20 Yrs/Male**	Enc #.		Report Date:	16/02/2021 2:38PM
Bed No./Ward:		Lab No	2605489	Invoice Date:	16/02/2021 12:15PM
Nationality:	Indian	Referred By:	Dr. RAJESH KUMAR		
Clinic Name:				Test Priority:	Routine
Company:	**TARIFF VERSION 9.0**			**Manual Lab No.**	
				Report Stage:	**Final**

CLINICAL BIOCHEMISTRY/ IMMUNO ASSSAY

Test Name	Result	Unit	Reference Range
Free T3	4.00	pg/ml	2.77 - 5.27

Sample-Serum, Method-ECI

Interpretation:
Increased Levels : Graves disease, T3 thyrotoxicosis, Thyroid hormone resistance,Functional thyroid adenoma (T3 producing)
Decreased Levels : Non thyroidal illness Hypothyroidism, Nutritional deficiency,Pregnancy, Estrogen therapy.

Free T4	1.11	ng/dl	0.78 - 2.19

Sample-Serum, Method-ECI

Interpretation :
FT4 concentrations are generally depressed in hypothyroidism and raised in hyperthyroidism.
Measurement of FT4 thus provides an aid to the differential diagnosis of thyroid disease.

TSH-Thyroid Stimulating Hormone	2.420	uIU/ml	0.47 - 4.68

Sample-Serum, Method-ECI

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TSH levels are subject to circadian variation , reaching peak levels between 2-4 a.m. and at a minimum between 6-10 pm. The variation may be of the order of 50%, hence time of the day has influence on measured serum TSH concentrations.
Values <0.03 uIU/Ml need to be clinically correlated due to presence of a rare TSH variant in some individuals .
Pregnancy

Firsttrimester	:0.1-2.5 Uiu/Ml
Secondtrimester	:0.2-3.0 Uiu/Ml
Thirdtrimester	:0.3-3.0 Uiu/Ml

Clinical Use

Diagnosehypothyroidism and hyperthyroidism
MonitorT4 replacement or T4 suppressive therapy
QuantifyTSH levels in the subnormal range
Increased levels of TSH are seen in Primary hypothyroidism (3–100 times normal),Hashimoto's thyroiditis, sub clinical hpothyroidism,ectopic TSH Secretion (lung & Breast tumours), subacute thyroiditis(recovery phase) nonthyroidal illness (recovery phase) and thyroid hormone resistance.

Decreasedlevels are seen in Primary hyperthyroidism, Secondary hypothyroidism(Pituitary), Tertiary hypothyroidism, (hypothalamic),subclinicalhyperthyroidism (Toxic multinodular goiter, autonomous thyroid hormonesecretion, exogenous thyroid hormone therapy), Graves disease, and euthyroid sick syndrome.

Vitamin B12	**L**	203.00	pg/ml	239 - 931

Sample-Serum, Method-ECI

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CLINICAL BIOCHEMISTRY/ IMMUNO ASSSAY

Test Name	Result	Unit	Reference Range

Interpretation :
Vitamin B12 (cyanocobalamine) is a water soluble vitamin, involved in the metabolism of every cell of the human body. Reduced concentrations of vitamin B12 may indicate the presence of vitamin dependent megaloblastic anemia and demyelination of nerve fibres of spinal cord.
The most common cause of B12 deficiency are
Dietary deficiency: Vegetarians.
Vitamin B 12 deficiency is also commonly seen in pregnancy due to increased demand.
Malabsorption: either due to atrophy of gastric mucosa or disease of terminal ileum. anatomical abnormality of small gut, chronic pancreatitis, giardiasis, crohn disease, celiac disease.
Lack of intrinsic factors (total or partial gastrectomy, Atrophic gastritis)

Elevated concentration of vitamin B12 is not known to cause clinical problems.

25 HYDROXY VITAMIN D-TOTAL	10.70	ng/ml	

Sample-Serum, Method-ECI

Interpretation :

Deficiency	: <20 ng/ml
Insufficiency	: 20-30 ng/ml
Sufficiency	: 31-100 ng/ml
Toxicity	: >100 ng/ml

This test measures total Vitamin D (25-OH Vitamin D). 25-OH Vitamin D is a precursor of the active form (1,25 Di-Hydroxy Vitamin D) and levels are used to diagnose either Vitamin D deficiency or excess.
There is increasing evidence that Vitamin D deficiency may increase the risk of some cancers, diabetes, immune disorders, and cardiovascular disease. High levels of 25-OH Vitamin D usually reflect excess supplementation.
Therapy is based on measurement of Total 25-OH Vitamin D, with levels <20 ng/ml indicative of Vitamin D deficiency, whereas levels between 30 ng/ml to 100 ng/ml are considered normal.

Dr. SUNITA DESHMUKH,MD(Path),Reg No-3927(HEAD-LAB)