

Patient Name : Ms. SARIA ABED Sample UID No. : 4011833

 Age / Gender
 : 26 Y / Female
 Sample Collected On : 31-07-2024 16:57

 Patient ID
 : QLD011821
 Registered On : 01-08-2024 12:01

 Referred By
 : DR.HUMAIRA
 Reported on : 01-08-2024 16:02

Department of IMMUNOLOGY GENERAL WELLNESS CHECK-UP(PESHAWAR)

 Investigation
 Results
 Flag
 Units
 Biological Reference Interval
 Method

 VITAMIN D, 25-OH (TOTAL)
 18
 L
 ng/mL
 Deficient : ≤ 20
 ECLIA

insufficient: 21-29
Sufficient: ≥ 30
Toxicity: >80

Sample: Serum Comments:

CLINICAL IMPLICATIONS:

- 1. Increased Vitamin D levels are seen in gastrointestinal symptoms like anorexia, nausea, vomiting, constipation, hypercalcemia, renal colic, supplements, normal growing children, pregnant and lactating females, tuberculosis, idiopathic hypercalciuria, sarcoidosis. Levels can increase to 200 -300pg/ml during treatment of osteoma Lacia with physiological doses of vitamin D.
- 2. Decreased levels are seen in Inadequate diet, Inadequate exposure to sunlight, liver disease, Malabsorption syndrome, osteoma Lacia, Anticonvulsants, rickets, chronic renal failure, pseudohypoparathyroidism, post-menopausal osteoporosis and adults with insulin requiring diabetes mellitus.
- 3. 25(OH) levels do not indicate clinical vitamin D status in patients with chronic renal failure or type 1 vitamin D dependent rickets or when calcitriol is used as a supplement.

INTERFERING FACTORS:

Age, season of the year, diarrhoea or vomiting, certain drugs, diseases, and long term hyperalimentation are the factors that may interfere with the vitamin levels.

RECOMMENDATION:

Recommended to evaluate alternate cause of impaired mineralization, if the levels are not consistent with the suspected diagnosis.

REFERENCE:

- 1) Manual of Laboratory and Diagnostics -Frances Fischbach Marshall B. Dunning III [9th Edition]
- 2) Tietz clinical guide to Laboratory tests(Fourth edition) ALAN H.B.WU
- 3) Clinical microbiology procedures 4th edition AMY L LEBER

Verified By

Vaishnav Jayamohan Lab Technologist

DHA No. 87250933-002



Authorised By

Dr. Dheepa Manoharan Medical Director Specialist Microbiologist DHA No. 00231751-004

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Department of IMMUNOLOGY GENERAL WELLNESS CHECK-UP(PESHAWAR)

InvestigationResultsFlagUnitsBiological Reference IntervalMethodVITAMIN B12311pg/mL197-771ECLIA

Sample: Serum Comments:

CLINICAL IMPLICATIONS: 1. Levels of Vitamin B12 and folate are usually tested in conjunction with one another for the diagnosis of Macrocytic anaemia and measurement of unsaturated VB12 binding capacity is valuable in distinguishing between untreated polycythemia vera and other conditions in which there is an elevated HCT. 2. Serum levels can be low in the absence of either anaemia or macrocytosis(eg. in patients with myeloma, aplastic anaemia) and conversely elevated Transcobalamin II can cause a normal or increase Vitamin B12 levels despite deficient liverstores.

INTERFERING FACTORS: 1. Blood transfusion, pregnancy, elderly patients, high vitamin C and A, smoking, drugs like aminoglycosides, metformin may alter the vitamin B 12 levels. 2. Low serum vitamin B 12 levels often occur in folate deficiency, and B12 deficiency can be masked by folate therapy.

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- 1) Manual of Laboratory and Diagnostics -Frances Fischbach Marshall B. Dunning III [9th Edition]
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Department of IMMUNOLOGY GENERAL WELLNESS CHECK-UP(PESHAWAR) THYROID FUNCTION TEST (T3,T4,TSH)

<u>Investigation</u>	<u>Results</u>	<u>Flag</u>	<u>Units</u>	Biological Reference Interval	<u>Method</u>
TRIIODOTHYRONINE, TOTAL (T3)	1.22		ng/mL	0.8-2	ECLIA
THYROXINE, TOTAL (T4)	8.0		ug/dL	5.1-14.1	ECLIA
THYROID STIMULATING HORMONE (TSH)	2.51		uIU/mL	0.27-4.2	ECLIA

Interpretation Notes:

Total T3 Clinical implication:

Total T3 level is a quantitative determination of the total T3 concentration in the blood and is the test of choice in the diagnosis of T3 thyrotoxicosis.

Total T4 Clinical Implications:

Total T4 is a good index of thyroid function when TB G (Thyroid Binding Globulin) is normal. The increase in TBG levels normally seen in pregnancy and with estrogen therapy increases total T4 levels. The decrease of TBG levels in person receiving anabolic steroids, in chronic liver disease and in nephrosis decrease the total T4 value..

TSH CLINICAL IMPLICATIONS:

TSH has diurnal rhythm, peaks at 2:00-4:00am and has low levels at 5:00-6:00pm with ultradian rhythm (shorter than circadian).

Moderately high TSH is often found in euthyroid patients during treatment for hyperthyroidism. In treated hyperthyroid patient, TSH may remain low for 4-6 week after euthyroid state is achieved. TSH surges with birth, peaking at 30min at 25-160mU/L, declining to cord blood levels by 3 days, and reaching adult values in the first week of life.

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Manual of Laboratory and Diagnostics -Frances Fischbach Marshall B. Dunning III [9th Edition]. Tietz clinical guide to Laboratory tests(Fourth edition) ALAN H.B.WU

Sample: Serum

- END OF REPORT -

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