PATIENT'S NAME	:	**MR. PURAV UDAY DESAI**	**AGE / SEX**	:	23 Years / M
ID No	:	**2531539**	**REG.DATE/TIME**	:	23/05/2025 8:16 AM
REF. BY Dr.	:	- / ABHAY VISPUTE	**SAMPLE COLL.TIME**	:	23/05/2025 8:27 AM
			REPORT DATE	:	23/05/2025 11:09 AM
			PRINT DATE	:	23/05/2025 12:56 PM

Investigation	Status	Result	Unit	Bio. Ref. Int
THYROID PANEL				
T3 (Tri-iodothyronine), Serum		115.0	ng/dl	58 - 159
T4 (Thyroxine), Serum		6.86	ug/dl	4.8 - 11.7
Thyroid Stimulating Hormone (TSH),(Ultrasensitive), Serum		1.237	ulU/ml	0.49 - 4.67

Method : CMIA
Note: Change in reference range (w.e.f.22/06/2019)
Interpretation: The age specific Reference Ranges is as given below.

AGE	(T3)ng/dl
1 -3 days	100 - 740
1 - 12 months	105 - 245
1 - 5 yrs	105 - 269
6 - 10 yrs	94 .- 241
11- 15 yrs	82 - 213
16 - 20 yrs	80 - 180
20 - 50 yrs	58 - 159
50 - 90 yrs	40 - 181
PREGNANCY:	
(1st trim)	81.0 - 190.0
(2nd & 3rd trim)	100.0 - 260.0

AGE	(T4)ug/dl
1-3 days	11.8 - 22.6
1-2 weeks	9.8 - 16.6
1-4 months	7.2 - 14.4
4-12 months	7.8 - 16.5
1-5 yrs	7.3 - 15.0
6-10 yrs	6.4 - 13.3
11-15 yrs	5.6 - 11.7
> 15yrs	4.8 - 11.7

AGE	T.S.H(µIU/ml)
Premature (28 - 36 wks)	0.7 - 27.0
1 day - 4 days	1.0 - 39.0
5 days - 20 weeks	1.7 - 9.1
21 weeks - 20 years	0.7 - 6.4
Adults : 21 yrs - 54 years	0.49 - 4.67
Adults : >55 years	0.5 - 8.90
Pregnancy (1st Trim)	0.1 - 2.5
Pregnancy (2nd Trim)	0.2 - 3.0
Pregnancy (3rd Trim)	0.3 - 3.0

* A Normal TSH and Normal T4 indicates a normally functioning Thyroid Gland.
* A Low TSH and High T4 generally indicates Hyperthyroidism.
* A High TSH and Low T4 generally indicates Primary Hypothyroidism (due to Thyroid Disease).
* A Low/Normal TSH and a Low T4 generally suggests Secondary Hypothyroidism (Due to a Disease of the Pituitary gland / Hypothalamus of the brain).
* For diagnostic purposes, A low T3 value accompanied by High TSH value is considered evidence of Hypothyroidism and a High T3 value accompanied by a Low TSH value is considered evidence of Hyperthyroidism..
* As per the guidelines issued by the American Association of Clinical Endocrinologists (AACE) and the (ATA), TSH levels between 4.7 - 10 µIU/mL is considered subclinical Hypothyroidism, and levels > 10 µIU/mL is considered as over Hypothyroidism.
* Values < 0.1 mIU/mL are an indication of over Hyperthyroidism or Exogenous Thyrotoxicosis and is a major risk factor for Atrial Fibrillation (AF) and Stroke.

Limitations:
* TSH may not be useful to evaluate thyroid status of hospitalized patients with acute medical or psychiatric illness.
* Pregnancy may result in an increase or decrease in test values.
* Various drugs may interfere with test results.
* Rheumatoid factor and Heterophilic antibodies may result in falsely increased or decreased test values.
* Lag time of 6-8 weeks is required for normalization of TSH after initiation of thyroid hormone replacement therapy.
* TSH levels may vary diurnally by upto 50% and upto 40% variations on specimens performed serially during the same time of the day, as TSH exhibits a diurnal variation with peak levels during the night (2 - 4 am) and low levels between 5:00-6:00 pm. This may have clinical implications in the diagnosis and management of an entity like Subclinical Hypothyroidism which heavily relies on TSH values and may be under or over diagnosed based on a single value.
* In circumstances where the patient fails to provide the age, the default reference range provided will be that of the adult. (As Reference ranges are Age Dependent)

Note:Laboratory Test Results should always be considered in the context of clinical observations in making a final diagnosis and Patient management decisions.

.....END OF REPORT.....

MC- 3335

Dr.Dhaval V.Sangoi, (MD,DPB)
Reg.No.:2005/04/2361

Consultant Pathologist / Microbiologist
(D.P.B. / M.D.)

Refer to condition of reporting overleaf.

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