

Dr. Vinay Chopra
 MD (Pathology & Microbiology)
 Chairman & Consultant Pathologist

Dr. Yugam Chopra
 MD (Pathology)
 CEO & Consultant Pathologist

NAME	: Mrs. SAPNA RANI	PATIENT ID	: 1804940
AGE/ GENDER	: 34 YRS/FEMALE	REG. NO./LAB NO.	: 012503240070
COLLECTED BY	:	REGISTRATION DATE	: 24/Mar/2025 08:11 PM
REFERRED BY	: CIVIL HOSPITAL (AMBALA CANTT)	COLLECTION DATE	: 24/Mar/2025 08:15PM
BARCODE NO.	: 01527698	REPORTING DATE	: 24/Mar/2025 10:35PM
CLIENT CODE.	: KOS DIAGNOSTIC LAB		
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
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ENDOCRINOLOGY

THYROID STIMULATING HORMONE (TSH)

THYROID STIMULATING HORMONE (TSH): SERUM 0.794 μ IU/mL 0.35 - 5.50

by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)

3rd GENERATION, ULTRASENSITIVE

INTERPRETATION:

AGE	REFERENCE RANGE (μ IU/mL)
0 – 5 DAYS	0.70 – 15.20
6 Days – 2 Months	0.70 – 11.00
3 – 11 Months	0.70 – 8.40
1 – 5 Years	0.70 – 7.00
6 – 10 Years	0.60 – 5.50
11 - 15	0.50 – 5.50
> 20 Years (Adults)	0.27 – 5.50
PREGNANCY	
1st Trimester	0.10 - 3.00
2nd Trimester	0.20 - 3.00
3rd Trimester	0.30 - 4.10

NOTE:- TSH levels are subjected to circadian variation, reaching peak levels between 2-4 a.m and at a minimum between 6-10 pm. The variation is of the order of 50 %. Hence time of the day has influence on the measured serum TSH concentration.

USE:- TSH controls biosynthesis and release of thyroid hormones T4 & T3. It is a sensitive measure of thyroid function, especially useful in early or subclinical hypothyroidism, before the patient develops any clinical findings or goitre or any other thyroid function abnormality.

INCREASED LEVELS:

- 1.Primary or untreated hypothyroidism, may vary from 3 times to more than 100 times normal depending on degree of hypofunction.
- 2.Hypothyroid patients receiving insufficient thyroid replacement therapy.
- 3.Hashimotos thyroiditis.
- 4.DRUGS: Amphetamines, Iodine containing agents and dopamine antagonist.
- 5.Neonatal period, increase in 1st 2-3 days of life due to post-natal surge.

DECREASED LEVELS:

- 1.Toxic multi-nodular goitre & Thyroiditis.
- 2.Over replacement of thyroid hormone in treatment of hypothyroidism.
- 3.Autonomously functioning Thyroid adenoma
- 4.Secondary pituitary or hypothalamic hypothyroidism
- 5.Acute psychiatric illness
- 6.Severe dehydration.




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7.DRUGS: Glucocorticoids, Dopamine, Levodopa, T4 replacement therapy, Anti-thyroid drugs for thyrotoxicosis.

8.Pregnancy: 1st and 2nd Trimester

LIMITATIONS:

- 1.TSH may be normal in central hypothyroidism, recent rapid correction of hyperthyroidism or hypothyroidism, pregnancy, phenytoin therapy.
- 2.Autoimmune disorders may produce spurious results.




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BETA HCG - TOTAL (QUANTITATIVE): MATERNAL

BETA HCG TOTAL, PREGNANCY MATERNAL: **698.1^H** mIU/mL < 5.0
 SERUM
 by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)

INTERPRETATION:

MEN:	mIU/ml	< 2.0
NON PREGNANT PRE-MENOPAUSAL WOMEN:	mIU/ml	< 5.0
MENOPAUSAL WOMEN:	mIU/ml	< 7.0
BETA HCG EXPECTED VALUES IN ACCORDANCE TO WEEKS OF GESTATIONAL AGE		
WEEKS OF GESTATION	Unit	Value
4-5	mIU/ml	1500 - 23000
5-6	mIU/ml	3400 - 135300
6-7	mIU/ml	10500 - 161000
7-8	mIU/ml	18000 - 209000
8-9	mIU/ml	37500 - 219000
9-10	mIU/ml	42800 - 218000
10-11	mIU/ml	33700 - 218700
11-12	mIU/ml	21800 - 193200
12-13	mIU/ml	20300 - 166100
13-14	mIU/ml	15400 - 190000
2nd TRIMESTER	mIU/ml	2800 - 176100
3rd TRIMESTER	mIU/ml	2800 - 144400




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1.hCG is a Glycoprotein with alpha and beta chains. Beta subunit is specific to hCG.

2.It is largely secreted by trophoblastic tissue. Small amounts may be secreted by fetal tissues and by the adult ant pituitary.

INCREASED :

- 1.Pregnancy
- 2.Gestationalsite & Non gestational trophoblastic neoplasia.
- 3.In mixed germ cell tumors.

SIGNIFICANTLY HIGHER THAN EXPECTED LEVEL:

- 1.Multiple pregnancies & High risk molar pregnancies are usually associated with levels in excess of one lac mIU/ml.
- 2.Erythroblastosis fetalis & Downs syndrome.

DECREASED:

- 1.Ectopic pregnancy.
- 2.Intra-uterine fetal death.

NOTE:

- 1.The test becomes positive 7-9 days after the midcycle surge that precedes ovulation (time of blastocyst implantation). Blood levels rise rapidly after this and double every 1.4 - 2 days.
- 2.Peak values are usually seen at 60-80 days of LMP. The levels then begin to taper and ebb out around the 20th week. These low levels are then maintained throughout pregnancy.
- 3.Doubling time: In intra-uterine pregnancy, serum hCG levels increase by approximately 66% every 48 hrs.Inappropriately rising serum hCG levels are suggestive of dying or ectopic pregnancy.

CAUTION:

Spuriously high levels (Phantom hCG) may be seen in presence of heterophilic antibodies (found in some normal people). If persistently raised levels are seen in a non-pregnant patient with no evidence of other obvious causes for such an increase a urine hCG assay may help confirm presence of the heterophile antibodies.

*** End Of Report ***




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