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

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

NAME	**: Mr. AMIT GUPTA**		
AGE/ GENDER	: 51 YRS/MALE	**PATIENT ID**	: 1774337
COLLECTED BY	:	**REG. NO./LAB NO.**	**: 012503010022**
REFERRED BY	:	**REGISTRATION DATE**	: 01/Mar/2025 10:15 AM
BARCODE NO.	: 01526281	**COLLECTION DATE**	: 01/Mar/2025 10:18AM
CLIENT CODE.	: KOS DIAGNOSTIC LAB	**REPORTING DATE**	: 01/Mar/2025 12:06PM
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
CLINICAL CHEMISTRY/BIOCHEMISTRY			
CREATININE			
CREATININE: SERUM *by ENZYMATIC, SPECTROPHOTOMETRY*	1.12	mg/dL	0.40 - 1.40

DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA
CONSULTANT PATHOLOGIST
MBBS , MD (PATHOLOGY)

NAME	**: Mr. AMIT GUPTA**		
AGE/ GENDER	: 51 YRS/MALE	**PATIENT ID**	: 1774337
COLLECTED BY	:	**REG. NO./LAB NO.**	**: 012503010022**
REFERRED BY	:	**REGISTRATION DATE**	: 01/Mar/2025 10:15 AM
BARCODE NO.	: 01526281	**COLLECTION DATE**	: 01/Mar/2025 10:18AM
CLIENT CODE.	: KOS DIAGNOSTIC LAB	**REPORTING DATE**	: 01/Mar/2025 01:13PM
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
LITHIUM			
LITHIUM: SERUM *by ISE (ION SELECTIVE ELECTRODE)*	0.93	mmol/L	0.30 - 1.50

INTERPRETATION:

Therapeutic	mmol/L	0.6 - 1.2
Potentially toxic	mmol/L	1.5 - 2.5
Severely toxic	mmol/L	> 2.5

1.Serum Lithium levels are useful for monitoring therapy of patients with bipolar disorders, including recurrent episodes of mania and depression and for evaluation of toxicity
2.Lithium alters the intraneuronal metabolism of catecholamines by an unknown mechanism. It is used to suppress the manic phase of manic-depressive psychosis.
3.Lithium is distributed throughout the total water spaces of the body and is excreted primarily by the kidney.
4.Toxicity from lithium salts leads to ataxia, slurred speech, and confusion.
5.Since the concentration of lithium in the serum varies with the time after the dose, blood for lithium determination should be drawn at a standard time, preferably 8 to 12 hours after the last dose (trough values).

***NOTE:*-Values above 1.6 mmol/L (trough values) are generally considered toxic and are indicative of dose modulation.**

DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA
CONSULTANT PATHOLOGIST
MBBS , MD (PATHOLOGY)

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

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

NAME	**: Mr. AMIT GUPTA**		
AGE/ GENDER	: 51 YRS/MALE	**PATIENT ID**	: 1774337
COLLECTED BY	:	**REG. NO./LAB NO.**	**: 012503010022**
REFERRED BY	:	**REGISTRATION DATE**	: 01/Mar/2025 10:15 AM
BARCODE NO.	: 01526281	**COLLECTION DATE**	: 01/Mar/2025 10:18AM
CLIENT CODE.	: KOS DIAGNOSTIC LAB	**REPORTING DATE**	: 01/Mar/2025 12:06PM
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval

ENDOCRINOLOGY

THYROID STIMULATING HORMONE (TSH)

THYROID STIMULATING HORMONE (TSH): SERUM *by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)* **3rd GENERATION, ULTRASENSITIVE**	3.673	µIU/mL	0.35 - 5.50

INTERPRETATION:

AGE	REFFERENCE RANGE (µIU/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 circardian 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 harmones 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 harmone in treatment of hypothyroidism.
3.Autonomously functioning Thyroid adenoma
4.Secondary pituatary or hypothalmic hypothyroidism
5.Acute psychiatric illness
6.Severe dehydration.
7.DRUGS: Glucocorticoids, Dopamine, Levodopa, T4 replacement therapy, Anti-thyroid drugs for thyrotoxicosis.

DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA
CONSULTANT PATHOLOGIST
MBBS , MD (PATHOLOGY)

NAME	**: Mr. AMIT GUPTA**		
AGE/ GENDER	: 51 YRS/MALE	**PATIENT ID**	: 1774337
COLLECTED BY	:	**REG. NO./LAB NO.**	**: 012503010022**
REFERRED BY	:	**REGISTRATION DATE**	: 01/Mar/2025 10:15 AM
BARCODE NO.	: 01526281	**COLLECTION DATE**	: 01/Mar/2025 10:18AM
CLIENT CODE.	: KOS DIAGNOSTIC LAB	**REPORTING DATE**	: 01/Mar/2025 12:06PM
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval

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.

*** End Of Report ***

DR.VINAY CHOPRA
CONSULTANT PATHOLOGIST
MBBS, MD (PATHOLOGY & MICROBIOLOGY)

DR.YUGAM CHOPRA
CONSULTANT PATHOLOGIST
MBBS , MD (PATHOLOGY)