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

<b>NAME</b>	: Mr. RAJINDER SINGH	<b>PATIENT ID</b>	: 1741835
<b>AGE/ GENDER</b>	: 47 YRS/MALE	<b>REG. NO./LAB NO.</b>	: 012501310058
<b>COLLECTED BY</b>	:	<b>REGISTRATION DATE</b>	: 31/Jan/2025 07:21 PM
<b>REFERRED BY</b>	: P.G.I. (CHANDIGARH)	<b>COLLECTION DATE</b>	: 31/Jan/2025 07:23PM
<b>BARCODE NO.</b>	: 01524732	<b>REPORTING DATE</b>	: 31/Jan/2025 08:36PM
<b>CLIENT CODE.</b>	: KOS DIAGNOSTIC LAB		
<b>CLIENT ADDRESS</b>	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
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### HAEMATOLOGY

#### GLYCOSYLATED HAEMOGLOBIN (HbA1c)

GLYCOSYLATED HAEMOGLOBIN (HbA1c): WHOLE BLOOD <i>by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)</i>	6.3	%	4.0 - 6.4
ESTIMATED AVERAGE PLASMA GLUCOSE <i>by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)</i>	134.11	mg/dL	60.00 - 140.00

#### INTERPRETATION:

AS PER AMERICAN DIABETES ASSOCIATION (ADA):	
REFERENCE GROUP	GLYCOSYLATED HEMOGLOBIN (HbA1c) in %
Non diabetic Adults >= 18 years	<5.7
At Risk (Prediabetes)	5.7 – 6.4
Diagnosing Diabetes	>= 6.5
Therapeutic goals for glycemic control	<b>Age &gt; 19 Years</b>
	Goals of Therapy: < 7.0
	Actions Suggested: >8.0
	<b>Age &lt; 19 Years</b>
	Goal of therapy: <7.5

#### COMMENTS:

- Glycosylated hemoglobin (HbA1c) test is three monthly monitoring done to assess compliance with therapeutic regimen in diabetic patients.
- Since Hb1c reflects long term fluctuations in blood glucose concentration, a diabetic patient who has recently under good control may still have high concentration of HbA1c. Converse is true for a diabetic previously under good control but now poorly controlled.
- Target goals of < 7.0 % may be beneficial in patients with short duration of diabetes, long life expectancy and no significant cardiovascular disease. In patients with significant complications of diabetes, limited life expectancy or extensive co-morbid conditions, targeting a goal of < 7.0% may not be appropriate.
- High HbA1c (>9.0 -9.5 %) is strongly associated with risk of development and rapid progression of microvascular and nerve complications
- Any condition that shortens RBC life span like acute blood loss, hemolytic anemia falsely lowers HbA1c results.
- HbA1c results from patients with HbSS, HbSC and HbD must be interpreted with caution, given the pathological processes including anemia, increased red cell turnover, and transfusion requirement that adversely impact HbA1c as a marker of long-term glycemic control.
- Specimens from patients with polycythemia or post-splenectomy may exhibit increase in HbA1c values due to a somewhat longer life span of the red cells.





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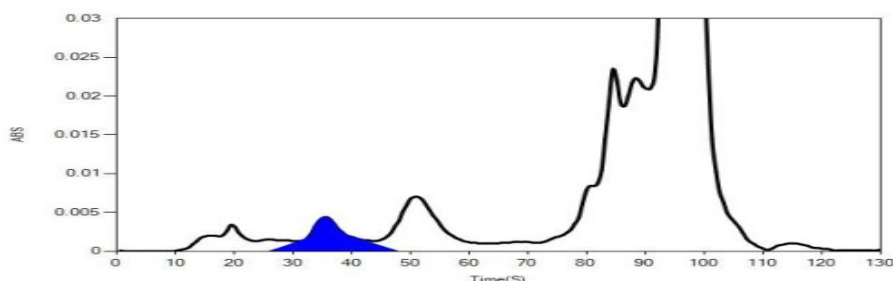
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LIFOTRONIC Graph Report

Name :	Case :	Patient Type :	Test Date : 31/01/2025 22:55:29
Age :	Department :	Sample Type : Whole Blood EDTA	Sample Id : 01524732
Gender :			Total Area : 10583

Peak Name	Retention Time(s)	Absorbance	Area	Result (Area %)
HbA0	70	2766	9367	83.6
HbA1c	37	71	709	6.3
La1c	26	44	281	2.5
HbF	19	15	25	0.2
Hba1b	14	34	122	1.1
Hba1a	11	20	79	0.7





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<b>BARCODE NO.</b>	: 01524732	<b>REPORTING DATE</b>	: 31/Jan/2025 10:26PM
<b>CLIENT CODE.</b>	: KOS DIAGNOSTIC LAB		
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## ENDOCRINOLOGY

### THYROID STIMULATING HORMONE (TSH)

THYROID STIMULATING HORMONE (TSH): SERUM 2.137  $\mu$ IU/mL 0.35 - 5.50  
 by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)

3rd GENERATION, ULTRASENSITIVE

#### INTERPRETATION:

AGE	REFERENCE RANGE ( $\mu$ 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
<b>PREGNANCY</b>	
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.
- 7.DRUGS: Glucocorticoids, Dopamine, Levodopa, T4 replacement therapy, Anti-thyroid drugs for thyrotoxicosis.





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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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<b>BARCODE NO.</b>	: 01524732	<b>REPORTING DATE</b>	: 01/Feb/2025 11:54AM
<b>CLIENT CODE.</b>	: KOS DIAGNOSTIC LAB		
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### IMMUNOPATHOLOGY/SEROLOGY

#### HELICOBACTER PYLORI ANTIGEN DETECTION - STOOL

HELICOBACTER ANTIGEN DETECTION - STOOL <i>by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)</i>	0.231	INDEX	NEGATIVE: <0.90 EQUIVOCAL: 0.90-1.10 POSITIVE: >=1.10
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#### INTERPRETATION:

##### CLINICAL BACKGROUND:

H pylori infection is associated with peptic ulcer disease (duodenal and gastric) and chronic active gastritis. H pylori infection is also an independent risk factor for gastric cancer and primary malignant lymphoma of the stomach. However, many people who are infected with H. pylori may not show any symptoms of the disease.

##### NOTE:

1. It is a chemiluminescent Immunoassay (CLIA) for detection of Helicobacter pylori antigen in faecal samples and can be used for diagnosis, therapeutic monitoring and to assess eradication of H. pylori infection post treatment.
2. It is a qualitative test.
3. A positive result (antigen detected) is indicative of H pylori presence in stool sample.
4. A negative result does not exclude the possibility of Helicobacter pylori infection.
5. Assay results should be utilized in conjunction with other clinical and laboratory data to assist the clinician in making individual patient management decisions.
6. Antimicrobials, proton pump inhibitors and bismuth preparations are known to suppress H.pylori and if ingested may give a false negative result.
7. Fecal specimens preserved in 10 % formalin, merthiolate formalin, sodium acetate formalin, or polyvinyl alcohol or specimens that are in transport media such as Cary Blair or C & S cannot be used.

\*\*\* End Of Report \*\*\*



  
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