

**Dr. Vinay Chopra**  
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 Chairman & Consultant Pathologist

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

|                       |                                        |                          |                        |
|-----------------------|----------------------------------------|--------------------------|------------------------|
| <b>NAME</b>           | : Mrs. MANPREET KAUR                   | <b>PATIENT ID</b>        | : 1790085              |
| <b>AGE/ GENDER</b>    | : 45 YRS/FEMALE                        | <b>REG. NO./LAB NO.</b>  | : 012503130024         |
| <b>COLLECTED BY</b>   | : SURJESH                              | <b>REGISTRATION DATE</b> | : 13/Mar/2025 09:36 AM |
| <b>REFERRED BY</b>    | :                                      | <b>COLLECTION DATE</b>   | : 13/Mar/2025 09:54AM  |
| <b>BARCODE NO.</b>    | : 01527049                             | <b>REPORTING DATE</b>    | : 13/Mar/2025 12:05PM  |
| <b>CLIENT CODE.</b>   | : KOS DIAGNOSTIC LAB                   |                          |                        |
| <b>CLIENT ADDRESS</b> | : 6349/1, NICHOLSON ROAD, AMBALA CANTT |                          |                        |

| Test Name | Value | Unit | Biological Reference interval |
|-----------|-------|------|-------------------------------|
|-----------|-------|------|-------------------------------|

### HAEMATOLOGY

#### GLYCOSYLATED HAEMOGLOBIN (HBA1C)

|                                                                                                             |        |       |                |
|-------------------------------------------------------------------------------------------------------------|--------|-------|----------------|
| GLYCOSYLATED HAEMOGLOBIN (HbA1c):<br>WHOLE BLOOD<br><i>by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)</i> | 5.9    | %     | 4.0 - 6.4      |
| ESTIMATED AVERAGE PLASMA GLUCOSE<br><i>by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)</i>                 | 122.63 | 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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| <b>BARCODE NO.</b>    | : 01527049                             | <b>REPORTING DATE</b>    | : 13/Mar/2025 11:26AM  |
| <b>CLIENT CODE.</b>   | : KOS DIAGNOSTIC LAB                   |                          |                        |
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## CLINICAL CHEMISTRY/BIOCHEMISTRY

### LIPID PROFILE : BASIC

|                                                                          |        |       |                                                                                                                                      |
|--------------------------------------------------------------------------|--------|-------|--------------------------------------------------------------------------------------------------------------------------------------|
| CHOLESTEROL TOTAL: SERUM<br><i>by CHOLESTEROL OXIDASE PAP</i>            | 186.81 | mg/dL | OPTIMAL: < 200.0<br>BORDERLINE HIGH: 200.0 - 239.0<br>HIGH CHOLESTEROL: > OR = 240.0                                                 |
| TRIGLYCERIDES: SERUM<br><i>by GLYCEROL PHOSPHATE OXIDASE (ENZYMATIC)</i> | 67.02  | mg/dL | OPTIMAL: < 150.0<br>BORDERLINE HIGH: 150.0 - 199.0<br>HIGH: 200.0 - 499.0<br>VERY HIGH: > OR = 500.0                                 |
| HDL CHOLESTEROL (DIRECT): SERUM<br><i>by SELECTIVE INHIBITION</i>        | 61.93  | mg/dL | LOW HDL: < 30.0<br>BORDERLINE HIGH HDL: 30.0 - 60.0<br>HIGH HDL: > OR = 60.0                                                         |
| LDL CHOLESTEROL: SERUM<br><i>by CALCULATED, SPECTROPHOTOMETRY</i>        | 111.48 | mg/dL | OPTIMAL: < 100.0<br>ABOVE OPTIMAL: 100.0 - 129.0<br>BORDERLINE HIGH: 130.0 - 159.0<br>HIGH: 160.0 - 189.0<br>VERY HIGH: > OR = 190.0 |
| NON HDL CHOLESTEROL: SERUM<br><i>by CALCULATED, SPECTROPHOTOMETRY</i>    | 124.88 | mg/dL | OPTIMAL: < 130.0<br>ABOVE OPTIMAL: 130.0 - 159.0<br>BORDERLINE HIGH: 160.0 - 189.0<br>HIGH: 190.0 - 219.0<br>VERY HIGH: > OR = 220.0 |
| VLDL CHOLESTEROL: SERUM<br><i>by CALCULATED, SPECTROPHOTOMETRY</i>       | 13.4   | mg/dL | 0.00 - 45.00                                                                                                                         |
| TOTAL LIPIDS: SERUM<br><i>by CALCULATED, SPECTROPHOTOMETRY</i>           | 440.64 | mg/dL | 350.00 - 700.00                                                                                                                      |
| CHOLESTEROL/HDL RATIO: SERUM<br><i>by CALCULATED, SPECTROPHOTOMETRY</i>  | 3.02   | RATIO | LOW RISK: 3.30 - 4.40<br>AVERAGE RISK: 4.50 - 7.0                                                                                    |



  
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|---------------------------------------------------------------------------|-------------------|-------|--------------------------------------------------------------------------------------------------------------------------|
| LDL /HDL RATIO: SERUM<br><i>by CALCULATED, SPECTROPHOTOMETRY</i>          | 1.8               | RATIO | MODERATE RISK: 7.10 - 11.0<br>HIGH RISK: > 11.0<br>LOW RISK: 0.50 - 3.0<br>MODERATE RISK: 3.10 - 6.0<br>HIGH RISK: > 6.0 |
| TRIGLYCERIDES/HDL RATIO: SERUM<br><i>by CALCULATED, SPECTROPHOTOMETRY</i> | 1.08 <sup>L</sup> | RATIO | 3.00 - 5.00                                                                                                              |

**INTERPRETATION:**

1. Measurements in the same patient can show physiological & analytical variations. Three serial samples 1 week apart are recommended for Total Cholesterol, Triglycerides, HDL & LDL Cholesterol.
2. As per NLA-2014 guidelines, all adults above the age of 20 years should be screened for lipid status. Selective screening of children above the age of 2 years with a family history of premature cardiovascular disease or those with at least one parent with high total cholesterol is recommended.
3. Low HDL levels are associated with increased risk for Atherosclerotic Cardiovascular disease (ASCVD) due to insufficient HDL being available to participate in reverse cholesterol transport, the process by which cholesterol is eliminated from peripheral tissues.
4. NLA-2014 identifies Non HDL Cholesterol (an indicator of all atherogenic lipoproteins such as LDL, VLDL, IDL, Lp(a), Chylomicron remnants) along with LDL-cholesterol as co-primary target for cholesterol lowering therapy. Note that major risk factors can modify treatment goals for LDL & Non HDL.
5. Additional testing for Apolipoprotein B, hsCRP, Lp(a) & LP-PLA2 should be considered among patients with moderate risk for ASCVD for risk refinement

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



  
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