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

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

TEST PERFORMED AT KOS DIAGNOSTIC LAB, AMBALA CANTT.

NAME	**: Mrs. JASWANT KAUR**		
AGE/ GENDER	: 69 YRS/FEMALE	**PATIENT ID**	: 1525963
COLLECTED BY	:	**REG. NO./LAB NO.**	**: 042408140007**
REFERRED BY	:	**REGISTRATION DATE**	: 14/Aug/2024 11:41 AM
BARCODE NO.	: A0465226	**COLLECTION DATE**	: 14/Aug/2024 03:17PM
CLIENT CODE.	: KOS DIAGNOSTIC SHAHBAD	**REPORTING DATE**	: 14/Aug/2024 03:56PM
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval

HAEMATOLOGY

HAEMOGLOBIN (HB)

HAEMOGLOBIN (HB) *by CALORIMETRIC*	**11.4L**	**gm/dL**	**12.0 - 16.0**

INTERPRETATION:-

Hemoglobin is the protein molecule in red blood cells that carries oxygen from the lungs to the bodys tissues and returns carbon dioxide from the tissues back to the lungs.
A low hemoglobin level is referred to as ANEMIA or low red blood count.

ANEMIA (DECRESED HAEMOGLOBIN):

1) Loss of blood (traumatic injury, surgery, bleeding, colon cancer or stomach ulcer)
2) Nutritional deficiency (iron, vitamin B12, folate)
3) Bone marrow problems (replacement of bone marrow by cancer)
4) Suppression by red blood cell synthesis by chemotherapy drugs
5) Kidney failure
6) Abnormal hemoglobin structure (sickle cell anemia or thalassemia).

POLYCYTHEMIA (INCREASED HAEMOGLOBIN):

1) People in higher altitudes (Physiological)
2) Smoking (Secondary Polycythemia)
3) Dehydration produces a falsely rise in hemoglobin due to increased haemoconcentration
4) Advanced lung disease (for example, emphysema)
5) Certain tumors
6) A disorder of the bone marrow known as polycythemia rubra vera,
7) Abuse of the drug erythropoetin (Epogen) by athletes for blood doping purposes (increasing the amount of oxygen available to the body by chemically raising the production of red blood cells).

NOTE: TEST CONDUCTED ON EDTA WHOLE BLOOD

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

TEST PERFORMED AT KOS DIAGNOSTIC LAB, AMBALA CANTT.

NAME	**: Mrs. JASWANT KAUR**		
AGE/ GENDER	: 69 YRS/FEMALE	**PATIENT ID**	: 1525963
COLLECTED BY	:	**REG. NO./LAB NO.**	**: 042408140007**
REFERRED BY	:	**REGISTRATION DATE**	: 14/Aug/2024 11:41 AM
BARCODE NO.	: A0465227	**COLLECTION DATE**	: 14/Aug/2024 03:17PM
CLIENT CODE.	: KOS DIAGNOSTIC SHAHBAD	**REPORTING DATE**	: 14/Aug/2024 04:43PM
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

CLINICAL CHEMISTRY/BIOCHEMISTRY

LIPID PROFILE : BASIC

Test Name	Value	Unit	Biological Reference interval
CHOLESTEROL TOTAL: SERUM *by CHOLESTEROL OXIDASE PAP*	196.98	mg/dL	OPTIMAL: < 200.0 BORDERLINE HIGH: 200.0 - 239.0 HIGH CHOLESTEROL: > OR = 240.0
TRIGLYCERIDES: SERUM ***by GLYCEROL PHOSPHATE OXIDASE (ENZYMATIC)***	**266.55^{H}**	**mg/dL**	**OPTIMAL: < 150.0** **BORDERLINE HIGH: 150.0 - 199.0** **HIGH: 200.0 - 499.0** **VERY HIGH: > OR = 500.0**
HDL CHOLESTEROL (DIRECT): SERUM *by SELECTIVE INHIBITION*	63.91	mg/dL	LOW HDL: < 30.0 BORDERLINE HIGH HDL: 30.0 - 60.0 HIGH HDL: > OR = 60.0
LDL CHOLESTEROL: SERUM *by CALCULATED, SPECTROPHOTOMETRY*	79.76	mg/dL	OPTIMAL: < 100.0 ABOVE OPTIMAL: 100.0 - 129.0 BORDERLINE HIGH: 130.0 - 159.0 HIGH: 160.0 - 189.0 VERY HIGH: > OR = 190.0
NON HDL CHOLESTEROL: SERUM ***by CALCULATED, SPECTROPHOTOMETRY***	**133.07^{H}**	**mg/dL**	**OPTIMAL: < 130.0** **ABOVE OPTIMAL: 130.0 - 159.0** **BORDERLINE HIGH: 160.0 - 189.0** **HIGH: 190.0 - 219.0** **VERY HIGH: > OR = 220.0**
VLDL CHOLESTEROL: SERUM ***by CALCULATED, SPECTROPHOTOMETRY***	**53.31^{H}**	**mg/dL**	**0.00 - 45.00**
TOTAL LIPIDS: SERUM *by CALCULATED, SPECTROPHOTOMETRY*	660.51	mg/dL	350.00 - 700.00
CHOLESTEROL/HDL RATIO: SERUM *by CALCULATED, SPECTROPHOTOMETRY*	3.08	RATIO	LOW RISK: 3.30 - 4.40 AVERAGE RISK: 4.50 - 7.0 MODERATE RISK: 7.10 - 11.0 HIGH RISK: > 11.0
LDL/HDL RATIO: SERUM	1.25	RATIO	LOW RISK: 0.50 - 3.0

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	**: Mrs. JASWANT KAUR**		
AGE/ GENDER	: 69 YRS/FEMALE	**PATIENT ID**	: 1525963
COLLECTED BY	:	**REG. NO./LAB NO.**	**: 042408140007**
REFERRED BY	:	**REGISTRATION DATE**	: 14/Aug/2024 11:41 AM
BARCODE NO.	: A0465227	**COLLECTION DATE**	: 14/Aug/2024 03:17PM
CLIENT CODE.	: KOS DIAGNOSTIC SHAHBAD	**REPORTING DATE**	: 14/Aug/2024 04:43PM
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
by CALCULATED, SPECTROPHOTOMETRY			MODERATE RISK: 3.10 - 6.0 HIGH RISK: > 6.0
TRIGLYCERIDES/HDL RATIO: SERUM *by CALCULATED, SPECTROPHOTOMETRY*	4.17	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 atherogeniclipoproteins such as LDL , VLDL, IDL, Lpa, 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

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

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

TEST PERFORMED AT KOS DIAGNOSTIC LAB, AMBALA CANTT.

NAME	**: Mrs. JASWANT KAUR**		
AGE/ GENDER	: 69 YRS/FEMALE	**PATIENT ID**	: 1525963
COLLECTED BY	:	**REG. NO./LAB NO.**	**: 042408140007**
REFERRED BY	:	**REGISTRATION DATE**	: 14/Aug/2024 11:41 AM
BARCODE NO.	: A0465227	**COLLECTION DATE**	: 14/Aug/2024 03:17PM
CLIENT CODE.	: KOS DIAGNOSTIC SHAHBAD	**REPORTING DATE**	: 14/Aug/2024 04:43PM
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval

URIC ACID

URIC ACID: SERUM	2.69	mg/dL	2.50 - 6.80

by URICASE - OXIDASE PEROXIDASE

INTERPRETATION:-

1.GOUT occurs when high levels of Uric Acid in the blood cause crystals to form & accumulate around a joint.
2.Uric Acid is the end product of purine metabolism . Uric acid is excreted to a large degree by the kidneys and to a smaller degree in the intestinal tract by microbial degradation.

INCREASED:-

(A).DUE TO INCREASED PRODUCTION:-

1.Idiopathic primary gout.
2.Excessive dietary purines (organ meats,legumes,anchovies, etc).
3.Cytolytic treatment of malignancies especially leukemais & lymphomas.
4.Polycythemai vera & myeloid metaplasia.
5.Psoriasis.
6.Sickle cell anaemia etc.

(B).DUE TO DECREASED EXCREATION (BY KIDNEYS)

1.Alcohol ingestion.
2.Thiazide diuretics.
3.Lactic acidosis.
4.Aspirin ingestion (less than 2 grams per day).
5.Diabetic ketoacidosis or starvation.
6.Renal failure due to any cause etc.

DECREASED:-

(A).DUE TO DIETARY DEFICIENCY

1.Dietary deficiency of Zinc, Iron and molybdenum.
2.Fanconi syndrome & Wilsons disease.
3.Multiple sclerosis .
4.Syndrome of inappropriate antidiuretic hormone (SIADH) secretion & low purine diet etc.

(B).DUE TO INCREASED EXCREATION

1.Drugs:-Probenecid , sulphinpyrazone, aspirin doses (more than 4 grams per day), corticosterroids and ACTH, anti-coagulants and estrogens etc.

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

TEST PERFORMED AT KOS DIAGNOSTIC LAB, AMBALA CANTT.

NAME	**: Mrs. JASWANT KAUR**		
AGE/ GENDER	: 69 YRS/FEMALE	**PATIENT ID**	: 1525963
COLLECTED BY	:	**REG. NO./LAB NO.**	**: 042408140007**
REFERRED BY	:	**REGISTRATION DATE**	: 14/Aug/2024 11:41 AM
BARCODE NO.	: A0465227	**COLLECTION DATE**	: 14/Aug/2024 03:17PM
CLIENT CODE.	: KOS DIAGNOSTIC SHAHBAD	**REPORTING DATE**	: 14/Aug/2024 05:23PM
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

IMMUNOPATHOLOGY/SEROLOGY

WIDAL SLIDE AGGLUTINATION TEST

Test Name	Value	Unit	Biological Reference interval
SALMONELLA TYPHI O *by SLIDE AGGLUTINATION*	1 : 40	TITRE	1 : 80
SALMONELLA TYPHI H *by SLIDE AGGLUTINATION*	1 : 40	TITRE	1 : 160
SALMONELLA PARATYPHI AH *by SLIDE AGGLUTINATION*	NIL	TITRE	1 : 160
SALMONELLA PARATYPHI BH *by SLIDE AGGLUTINATION*	NIL	TITRE	1 : 160

INTERPRETATION:

1.Titres of 1:80 or more for "O" agglutinin is considered significant.
2.Titres of 1:160 or more for "H" agglutinin is considered significant.

LIMITATIONS:

1.Agglutinins usually appear by 5th to 6th day of illness of enteric fever, hence a negative result in early stage is inconclusive.The titre then rises till 3rd or 4th week, after which it declines gradually.
2.Lower titres may be found in normal individuals.
3.A single positive result has less significance than the rising agglutination titre, since demonstration of rising titre four or more in 1st and 3rd week is considered as a definite evidence of infection.
4.A simultaneous rise in H agglutinins is suggestive of paratyphoid infection.

NOTE:

1.Individuals with prior infection or immunization with TAB vaccine may develop an ANAMNESTIC RESPONSE (False-Positive) during an unrelated fever i.e High titres of antibodies to various antigens.This may be differentiated by repitition of the test after a week.
2.The anamnestic response shows only a transient rise, while in enteric fever rise is sustained.
3.H agglutinins tend to persist for many months after vaccination but O agglutinins tend to disappear sooner i.e within 6 months.Therefore rise in Oagglutinins indicate recent infection.

*** End Of Report ***

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

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