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

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

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HAEMATOLOGY

COMPLETE BLOOD COUNT (CBC)

Test Name	Value	Unit	Biological Reference interval
RED BLOOD CELLS (RBCS) COUNT AND INDICES			
HAEMOGLOBIN (HB) *by CALORIMETRIC*	**10.9[L]**	**gm/dL**	**12.0 - 17.0**
RED BLOOD CELL (RBC) COUNT *by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE*	4.85	Millions/cmm	3.50 - 5.00
PACKED CELL VOLUME (PCV) *by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER*	**36.4[L]**	**%**	**40.0 - 54.0**
MEAN CORPUSCULAR VOLUME (MCV) *by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER*	**75[L]**	**fL**	**80.0 - 100.0**
MEAN CORPUSCULAR HAEMOGLOBIN (MCH) *by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER*	**22.5[L]**	**pg**	**27.0 - 34.0**
MEAN CORPUSCULAR HEMOGLOBIN CONC. (MCHC) *by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER*	**30[L]**	**g/dL**	**32.0 - 36.0**
RED CELL DISTRIBUTION WIDTH (RDW-CV) *by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER*	**17.9[H]**	**%**	**11.00 - 16.00**
RED CELL DISTRIBUTION WIDTH (RDW-SD) *by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER*	50.2	fL	35.0 - 56.0
MENTZERS INDEX *by CALCULATED*	15.46	RATIO	BETA THALASSEMIA TRAIT: < 13.0 IRON DEFICIENCY ANEMIA: >13.0
GREEN & KING INDEX *by CALCULATED*	27.71	RATIO	BETA THALASSEMIA TRAIT:<= 65.0 IRON DEFICIENCY ANEMIA: > 65.0
WHITE BLOOD CELLS (WBCS)			
TOTAL LEUCOCYTE COUNT (TLC) *by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY*	6110	/cmm	4000 - 11000
NUCLEATED RED BLOOD CELLS (nRBCS) *by AUTOMATED 6 PART HEMATOLOGY ANALYZER*	NIL		0.00 - 20.00
NUCLEATED RED BLOOD CELLS (nRBCS) % *by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER*	NIL	%	< 10 %
DIFFERENTIAL LEUCOCYTE COUNT (DLC)			
NEUTROPHILS *by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY*	**79[H]**	**%**	**50 - 70**

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MBBS, MD (PATHOLOGY & MICROBIOLOGY)

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Test Name	Value	Unit	Biological Reference interval
LYMPHOCYTES *by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY*	**16[L]**	**%**	**20 - 40**
EOSINOPHILS *by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY*	1	%	1 - 6
MONOCYTES *by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY*	4	%	2 - 12
BASOPHILS *by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY*	0	%	0 - 1
ABSOLUTE LEUKOCYTES (WBC) COUNT			
ABSOLUTE NEUTROPHIL COUNT *by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY*	4827	/cmm	2000 - 7500
ABSOLUTE LYMPHOCYTE COUNT *by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY*	978	/cmm	800 - 4900
ABSOLUTE EOSINOPHIL COUNT *by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY*	61	/cmm	40 - 440
ABSOLUTE MONOCYTE COUNT *by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY*	244	/cmm	80 - 880
ABSOLUTE BASOPHIL COUNT *by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY*	0	/cmm	0 - 110
PLATELETS AND OTHER PLATELET PREDICTIVE MARKERS.			
PLATELET COUNT (PLT) *by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE*	382000	/cmm	150000 - 450000
PLATELETCRIT (PCT) *by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE*	0.27	%	0.10 - 0.36
MEAN PLATELET VOLUME (MPV) *by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE*	7	fL	6.50 - 12.0
PLATELET LARGE CELL COUNT (P-LCC) *by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE*	40000	/cmm	30000 - 90000
PLATELET LARGE CELL RATIO (P-LCR) *by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE*	**10.4[L]**	**%**	**11.0 - 45.0**
PLATELET DISTRIBUTION WIDTH (PDW) *by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE*	15.6	%	15.0 - 17.0

NOTE: TEST CONDUCTED ON EDTA WHOLE BLOOD

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Test Name	Value	Unit	Biological Reference interval

CLINICAL CHEMISTRY/BIOCHEMISTRY

GLUCOSE RANDOM (R)

GLUCOSE RANDOM (R): PLASMA *by GLUCOSE OXIDASE - PEROXIDASE (GOD-POD)*	**198.35^{H}**	**mg/dL**	**NORMAL: < 140.00** **PREDIABETIC: 140.0 - 200.0** **DIABETIC: > 0R = 200.0**

INTERPRETATION

IN ACCORDANCE WITH AMERICAN DIABETES ASSOCIATION GUIDELINES:

1. A random plasma glucose level below 140 mg/dl is considered normal.
2. A random glucose level between 140 - 200 mg/dl is considered as glucose intolerant or prediabetic. A fasting and post-prnadial blood test (after consumption of 75 gms of glucose) is recommended for all such patients.
3. A random glucose level of above 200 mg/dl is highly suggestive of diabetic state. A repeat post-prandial is strongly recommended for all such patients. A fasting plasma glucose level in excess of 125 mg/dl on both occasions is confirmatory for diabetic state.

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LIVER FUNCTION TEST (COMPLETE)

Test Name	Value	Unit	Biological Reference interval
BILIRUBIN TOTAL: SERUM *by DIAZOTIZATION, SPECTROPHOTOMETRY*	0.4	mg/dL	INFANT: 0.20 - 8.00 ADULT: 0.00 - 1.20
BILIRUBIN DIRECT (CONJUGATED): SERUM *by DIAZO MODIFIED, SPECTROPHOTOMETRY*	0.15	mg/dL	0.00 - 0.40
BILIRUBIN INDIRECT (UNCONJUGATED): SERUM *by CALCULATED, SPECTROPHOTOMETRY*	0.25	mg/dL	0.10 - 1.00
SGOT/AST: SERUM *by IFCC, WITHOUT PYRIDOXAL PHOSPHATE*	28.3	U/L	7.00 - 45.00
SGPT/ALT: SERUM ***by IFCC, WITHOUT PYRIDOXAL PHOSPHATE***	**50.3^{H}**	**U/L**	**0.00 - 49.00**
AST/ALT RATIO: SERUM *by CALCULATED, SPECTROPHOTOMETRY*	0.56	RATIO	0.00 - 46.00
ALKALINE PHOSPHATASE: SERUM *by PARA NITROPHENYL PHOSPHATASE BY AMINO METHYL PROPANOL*	111.35	U/L	40.0 - 130.0
GAMMA GLUTAMYL TRANSFERASE (GGT): SERUM ***by SZASZ, SPECTROPHTOMETRY***	**219.46^{H}**	**U/L**	**0.00 - 55.0**
TOTAL PROTEINS: SERUM ***by BIURET, SPECTROPHOTOMETRY***	**6.09^{L}**	**gm/dL**	**6.20 - 8.00**
ALBUMIN: SERUM ***by BROMOCRESOL GREEN***	**3.45^{L}**	**gm/dL**	**3.50 - 5.50**
GLOBULIN: SERUM *by CALCULATED, SPECTROPHOTOMETRY*	2.64	gm/dL	2.30 - 3.50
A : G RATIO: SERUM *by CALCULATED, SPECTROPHOTOMETRY*	1.31	RATIO	1.00 - 2.00

INTERPRETATION

NOTE:- **To be correlated in individuals having SGOT and SGPT values higher than Normal Referance Range.**

USE:- Differential diagnosis of diseases of hepatobiliary system and pancreas.

INCREASED:

DRUG HEPATOTOXICITY	> 2
ALCOHOLIC HEPATITIS	> 2 (Highly Suggestive)
CIRRHOSIS	1.4 - 2.0
INTRAHEPATIC CHOLESTATIS	> 1.5
HEPATOCELLULAR CARCINOMA & CHRONIC HEPATITIS	> 1.3 (Slightly Increased)

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Test Name	Value	Unit	Biological Reference interval

DECREASED:

1. Acute Hepatitis due to virus, drugs, toxins (with AST increased 3 to 10 times upper limit of normal)
2. Extra Hepatic cholestatis: 0.8 (normal or slightly decreased).

PROGNOSTIC SIGNIFICANCE:

NORMAL	< 0.65
GOOD PROGNOSTIC SIGN	0.3 - 0.6
POOR PROGNOSTIC SIGN	1.2 - 1.6

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Test Name	Value	Unit	Biological Reference interval
UREA			
UREA: SERUM *by UREASE - GLUTAMATE DEHYDROGENASE (GLDH)*	20.62	mg/dL	10.00 - 50.00

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Test Name	Value	Unit	Biological Reference interval
CREATININE			
CREATININE: SERUM *by ENZYMATIC, SPECTROPHOTOMETRY*	0.97	mg/dL	0.40 - 1.40

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Test Name	Value	Unit	Biological Reference interval
KIDNEY FUNCTION TEST (COMPLETE)			
UREA: SERUM *by UREASE - GLUTAMATE DEHYDROGENASE (GLDH)*	20.62	mg/dL	10.00 - 50.00
CREATININE: SERUM *by ENZYMATIC, SPECTROPHOTOMETERY*	0.97	mg/dL	0.40 - 1.40
BLOOD UREA NITROGEN (BUN): SERUM *by CALCULATED, SPECTROPHOTOMETRY*	9.64	mg/dL	7.0 - 25.0
BLOOD UREA NITROGEN (BUN)/CREATININE RATIO: SERUM ***by CALCULATED, SPECTROPHOTOMETRY***	**9.94[L]**	**RATIO**	**10.0 - 20.0**
UREA/CREATININE RATIO: SERUM *by CALCULATED, SPECTROPHOTOMETRY*	21.26	RATIO	
URIC ACID: SERUM *by URICASE - OXIDASE PEROXIDASE*	4.66	mg/dL	3.60 - 7.70
CALCIUM: SERUM *by ARSENAZO III, SPECTROPHOTOMETRY*	9.85	mg/dL	8.50 - 10.60
PHOSPHOROUS: SERUM *by PHOSPHOMOLYBDATE, SPECTROPHOTOMETRY*	3.03	mg/dL	2.30 - 4.70
ELECTROLYTES			
SODIUM: SERUM *by ISE (ION SELECTIVE ELECTRODE)*	139	mmol/L	135.0 - 150.0
POTASSIUM: SERUM *by ISE (ION SELECTIVE ELECTRODE)*	3.5	mmol/L	3.50 - 5.00
CHLORIDE: SERUM *by ISE (ION SELECTIVE ELECTRODE)*	104.25	mmol/L	90.0 - 110.0
ESTIMATED GLOMERULAR FILTERATION RATE			
ESTIMATED GLOMERULAR FILTERATION RATE (eGFR): SERUM *by CALCULATED*	83.5		

INTERPRETATION:

To differentiate between pre- and post renal azotemia.

INCREASED RATIO (>20:1) WITH NORMAL CREATININE:

1. Prerenal azotemia (BUN rises without increase in creatinine) e.g. heart failure, salt depletion,dehydration, blood loss) due to decreased glomerular filtration rate.
2. Catabolic states with increased tissue breakdown.

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Test Name	Value	Unit	Biological Reference interval

3. GI haemorrhage.
4. High protein intake.
5. Impaired renal function plus
6. Excess protein intake or production or tissue breakdown (e.g. infection, GI bleeding, thyrotoxicosis, Cushing's syndrome, high protein diet, burns, surgery, cachexia, high fever).
7. Urine reabsorption (e.g. ureter colostomy)
8. Reduced muscle mass (subnormal creatinine production)
9. Certain drugs (e.g. tetracycline, glucocorticoids)

INCREASED RATIO (>20:1) WITH ELEVATED CREATININE LEVELS:

1. Postrenal azotemia (BUN rises disproportionately more than creatinine) (e.g. obstructive uropathy).
2. Prerenal azotemia superimposed on renal disease.

DECREASED RATIO (<10:1) WITH DECREASED BUN :

1. Acute tubular necrosis.
2. Low protein diet and starvation.
3. Severe liver disease.
4. Other causes of decreased urea synthesis.
5. Repeated dialysis (urea rather than creatinine diffuses out of extracellular fluid).
6. Inherited hyperammonemias (urea is virtually absent in blood).
7. SIADH (syndrome of inappropiate antidiuretic harmone) due to tubular secretion of urea.
8. Pregnancy.

DECREASED RATIO (<10:1) WITH INCREASED CREATININE:

1. Phenacimide therapy (accelerates conversion of creatine to creatinine).
2. Rhabdomyolysis (releases muscle creatinine).
3. Muscular patients who develop renal failure.

INAPPROPIATE RATIO:

1. Diabetic ketoacidosis (acetoacetate causes false increase in creatinine with certain methodologies,resulting in normal ratio when dehydration should produce an increased BUN/creatinine ratio).
2. Cephalosporin therapy (interferes with creatinine measurement).

ESTIMATED GLOMERULAR FILTERATION RATE:

CKD STAGE	DESCRIPTION	GFR (mL/min/1.73m2)	ASSOCIATED FINDINGS
G1	Normal kidney function	>90	No proteinuria
G2	Kidney damage with normal or high GFR	>90	Presence of Protein , Albumin or cast in urine
G3a	Mild decrease in GFR	60 -89	
G3b	Moderate decrease in GFR	30-59	
G4	Severe decrease in GFR	15-29	
G5	Kidney failure	<15	

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Test Name	Value	Unit	Biological Reference interval

COMMENTS:

1. Estimated Glomerular filtration rate (eGFR) is the sum of filtration rates in all functioning nephrons and so an estimation of the GFR provides a measure of functioning nephrons of the kidney.
2. eGFR calculated using the 2009 CKD-EPI creatinine equation and GFR category reported as per KDIGO guideline 2012
3. In patients, with eGFR creatinine between 45-59 ml/min/1.73 m2 (G3) and without any marker of Kidney damage, It is recommended to measure eGFR with Cystatin C for confirmation of CKD
4. eGFR category G1 OR G2 does not fullfill the criteria for CKD, in the absence of evidence of Kidney Damage
5. In a suspected case of Acute Kidney Injury (AKI), measurement of eGFR should be done after 48-96 hours of any Intervention or procedure
6. eGFR calculated by Serum Creatinine may be less accurate due to certain factors like Race, Muscle Mass, Diet, Certain Drugs. In such cases, eGFR should be calculated using Serum Cystatin C
7. A decrease in eGFR implies either progressive renal disease, or a reversible process causing decreased nephron function (eg, severe dehydration).

ADVICE:

KDIGO guideline, 2012 recommends Chronic Kidney Disease (CKD) should be classified based on cause, eGFR category and Albuminuria (ACR) category. GFR & ACR category combined together reflect risk of progression and helps Clinician to identify the individual who are progressing at more rapid rate than anticipated

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Test Name	Value	Unit	Biological Reference interval

ENDOCRINOLOGY

THYROID FUNCTION TEST: TOTAL

TRIIODOTHYRONINE (T3): SERUM *by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)*	0.899	ng/mL	0.35 - 1.93
THYROXINE (T4): SERUM *by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)*	7.56	µgm/dL	4.87 - 12.60
THYROID STIMULATING HORMONE (TSH): SERUM *by CMIA (CHEMILUMINESCENT MICROPARTICLE IMMUNOASSAY)*	0.524	µIU/mL	0.35 - 5.50

3rd GENERATION, ULTRASENSITIVE

INTERPRETATION:

*TSH levels are subject 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 concentrations.*TSH stimulates the production and secretion of the metabolically active hormones, thyroxine (T4)and trilodothyronine (T3).Failure at any level of regulation of the hypothalamic-pituitary-thyroid axis will result in either underproduction (hypothyroidism) or overproduction(hyperthyroidism) of T4 and/or T3.

CLINICAL CONDITION	T3	T4	TSH
Primary Hypothyroidism:	Reduced	Reduced	Increased (Significantly)
Subclinical Hypothyroidism:	Normal or Low Normal	Normal or Low Normal	High
Primary Hyperthyroidism:	Increased	Increased	Reduced (at times undetectable)
Subclinical Hyperthyroidism:	Normal or High Normal	Normal or High Normal	Reduced

LIMITATIONS:-

1. T3 and T4 circulates in reversibly bound form with Thyroid binding globulins (TBG),and to a lesser extent albumin and Thyroid binding Pre Albumin so conditions in which TBG and protein levels alter such as pregnancy, excess estrogens, androgens, anabolic steroids and glucocorticoids may falsely affect the T3 and T4 levels and may cause false thyroid values for thyroid function tests.
2. Normal levels of T4 can also be seen in Hyperthyroid patients with :T3 Thyrotoxicosis, Decreased binding capacity due to hypoproteinemia or ingestion of certain drugs (eg: phenytoin , salicylates).
3. Serum T4 levles in neonates and infants are higher than values in the normal adult , due to the increased concentration of TBG in neonate serum.
4. TSH may be normal in central hypothyroidism , recent rapid correction of hyperthyroidism or hypothroidism , pregnancy , phenytoin therapy.

TRIIODOTHYRONINE (T3)		THYROXINE (T4)		THYROID STIMULATING HORMONE (TSH)	
Age	**Refferance Range (ng/mL)**	**Age**	**Refferance Range (µg/dL)**	**Age**	**Reference Range (µIU/mL)**
0 - 7 Days	**0.20 - 2.65**	**0 - 7 Days**	**5.90 – 18.58**	**0 - 7 Days**	**2.43 - 24.3**
7 Days - 3 Months	**0.36 - 2.59**	**7 Days - 3 Months**	**6.39 - 17.66**	**7 Days - 3 Months**	**0.58 - 11.00**
3 - 6 Months	**0.51 - 2.52**	**3 - 6 Months**	**6.75 – 17.04**	**3 Days – 6 Months**	**0.70 - 8.40**

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	**: Dr. K.D SHARMA**		
AGE/ GENDER	: 71 YRS/Male	**PATIENT ID**	: 1630967
COLLECTED BY	:	**REG. NO./LAB NO.**	**: 012410010053**
REFERRED BY	:	**REGISTRATION DATE**	: 01/Oct/2024 11:51 AM
BARCODE NO.	: 01518123	**COLLECTION DATE**	: 01/Oct/2024 12:27PM
CLIENT CODE.	: KOS DIAGNOSTIC LAB	**REPORTING DATE**	: 01/Oct/2024 01:07PM
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name			Value	Unit	Biological Reference interval
6 - 12 Months	0.74 - 2.40	6 - 12 Months	7.10 – 16.16	6 – 12 Months	0.70 - 7.00
1 - 10 Years	0.92 - 2.28	1 - 10 Years	6.00 - 13.80	1 – 10 Years	0.60 - 5.50
11- 19 Years	0.35 - 1.93	11 - 19 Years	4.87- 13.20	11 – 19 Years	0.50 – 5.50
> 20 years (Adults)	0.35 - 1.93	> 20 Years (Adults)	4.87 - 12.60	> 20 Years (Adults)	0.35– 5.50
RECOMMENDATIONS OF TSH LEVELS DURING PREGNANCY (µIU/mL)					
1st Trimester			0.10 – 2.50		
2nd Trimester			0.20 – 3.00		
3rd Trimester			0.30 – 4.10		

INCREASED TSH LEVELS:

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

DECREASED TSH 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.
8.Pregnancy: 1st and 2nd Trimester

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Test Name	Value	Unit	Biological Reference interval

IMMUNOPATHOLOGY/SEROLOGY

TYPHOID COMBO SCREEN (TYPHOID ANTIGEN, IgG AND IgM): SERUM

TYPHOID ANTIGEN - SERUM *by ICT (IMMUNOCHROMATOGRAPHY)*	NEGATIVE (-ve)		NEGATIVE (-ve)
TYPHI DOT ANTIBODY IgG *by ICT (IMMUNOCHROMATOGRAPHY)*	WEAKLY POSITIVE (+ve)		NEGATIVE (-ve)
TYPHI DOT ANTIBODY IgM ***by ICT (IMMUNOCHROMATOGRAPHY)***	**POSITIVE (+ve)**		**NEGATIVE (-ve)**

INTE*RPRETATION:*

Typhoid fever is a life threatening illness caused by the bacterium Salmonella typhus.The infection is acquired typically by ingestion. On reaching the gut, the bacilli attach themselves to the epithelial cells of the intestinal villi and penetrate the lamina and submucosa. They are then phagocytosed there by polymorphs and mesenteric lymph nodes, where they multiply and, via the thoracic duct, enter the blood stream. A transient bacteremia follows, during which the bacilli are seeded in the liver, gall bladder, spleen, bone marrow, lymph nodes, and kidneys, where further multiplication takes place. Towards the end of the incubation period, there occurs a massive bacteremia from these sites, heralding the onset of the clinical symptoms.

The diagnosis of typhoid consists of isolation of the bacilli and the demonstration of antibodies. The isolation of the bacilli is very time consuming and antibody detection is not very specific. Other tests include the Widal reaction. The advantage of this test is that it takes only 10-20 minutes and requires only a small amount of stool/serum/plasma to perform. It is the easiest and most specific method for detecting S. typhi infection.

RELATIVE SENSTIVITY OF TYPHOID ANTIGEN DETECTION: 98.7%
RELATIVE SPECIFICITY OF TYPHOID ANTIGEN DETECTION: 97.4%

DETECTABLE IgM RESPONSE:

ONSET OF FEVER	PERCENT POSITIVE
4 - 6 DAYS	43.5
6 - 9 DAYS	92.9
> 9 DAYS	99.5

1.This is a solid phase, immunochromatographic ELISA assay that detects specific IgM and IgG Antibodies against the OUTER MEMBRAN PROTEIN(OMP) of theSalmonella species. IgM antibodies appear in the serum 2-3 days post infection and are indicative of a recent infection while the IgG antibodies appear later and are useful for presumptive diagnosis of Enteric fever if the patient presents more than a week after onset of symptoms.

2.This is a useful screening assay for the early detection of Enteric fever and has a high sensitivity. However the test has moderate specificity and false positive results may be obtained in the following situations:

- Antibodies against Salmonella may cross react with other antibodies.

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

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Test Name	Value	Unit	Biological Reference interval

- Unrelated infections may lead to production of specific Salmonella antibodies if the patient has previously been exposed to Salmonella infection **(ANAMNESTIC RESPONSE)**.

NOTE:-Rapid blood culture performed during 1st week of infection is highly recommended for confirmation of all IgM positive results. In case the patient has presented after the first week of infection, a thorough clinical correlation and confirmatory Widal test must be performed to establish the diagnosis.

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BARCODE NO.	: 01518123	**COLLECTION DATE**	: 01/Oct/2024 12:27PM
CLIENT CODE.	: KOS DIAGNOSTIC LAB	**REPORTING DATE**	: 01/Oct/2024 12:52PM
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
DENGUE FEVER COMBO SCREENING - (NS1 ANTIGEN, IgG AND IgM)			
DENGUE NS1 ANTIGEN - SCREENING *by ICT (IMMUNOCHROMATOGRAPHY)*	NEGATIVE (-ve)		NEGATIVE (-ve)
DENGUE ANTIBODY IgG - SCREENING *by ICT (IMMUNOCHROMATOGRAPHY)*	NEGATIVE (-ve)		NEGATIVE (-ve)
DENGUE ANTIBODY IgM - SCREENING *by ICT (IMMUNOCHROMATOGRAPHY)*	NEGATIVE (-ve)		NEGATIVE (-ve)

INTERPRETATION:-

*1.*This is a solid phase immunochromatographic ELISA test for the qualitative detection of the specific IgG and IgM antibodies against the Dengue virus.
2.The IgM antibodies take a minimum of 5-10 days in primary infection and 4-5 days in secondary infections to test positive and hence are suitable for the diagnosis of dengue fever only when the fever is approximately one week old.
3.The IgG antibodies develop at least two weeks after exposure to primary infection and subsequently remain positive for the rest of the life. A positive result is incapable of differentiating a current infection from a past infection.
4.The Dengue NS-1 antigen test is most suited for early diagnosis (within the first week of exposure).

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BARCODE NO.	: 01518123	**COLLECTION DATE**	: 01/Oct/2024 12:27PM
CLIENT CODE.	: KOS DIAGNOSTIC LAB	**REPORTING DATE**	: 06/Oct/2024 10:24AM
CLIENT ADDRESS	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval

MICROBIOLOGY

CULTURE AEROBIC BACTERIA AND ANTIBIOTIC SENSITIVITY (CONVENTIONAL): BLOOD

BLOOD CULTURE AND SUSCEPTIBILITY

DATE OF SAMPLE	01-10-2024
SPECIMEN SOURCE	BLOOD
INCUBATION PERIOD	72 HOURS (3 SUBCULTURES)
CULTURE *by AUTOMATED BROTH CULTURE*	STERILE
ORGANISM *by AUTOMATED BROTH CULTURE*	NO AEROBIC PYOGENIC ORGANISM GROWN AFTER 72 HOURS OF INCUBATION AT 37*C

AEROBIC SUSCEPTIBILITY BLOOD

INTERPRETATION

SUSCEPTIBILITY:

1. A test interpreted as **SENSTITIVE** implies that infection due to isolate may be appropriately treated with the dosage of an antimicrobial agent recommended for that type of infection and infecting species, unless otherwise indicated.
2. A test interpreted as **INTERMEDIATE** implies that the" Infection due to the isolate may be appropriately treated in body sites where the drugs are physiologically concentrated or when a high dosage of drug can be used".
3. A test interpreted as **RESISTANT** implies that the "isolates are not inhibited by the usually achievable concentration of the agents with normal dosage, schedule and/or fall in the range where specific microbial resistance mechanism are likely (e.g. beta-lactamases), and clinical efficacy has not been reliable in treatment studies.

CAUTION:

Conditions which can cause a false Negative culture:

1. Patient is on antibiotics. Please repeat culture post therapy.
2. Anaerobic bacterial infection.
3. Fastidious aerobic bacteria which are not able to grow on routine culture media.
4. Besides all these factors, at least in 25-40 % of cases there is no direct correlation between in vivo clinical picture.
5. Renal tuberculosis to be confirmed by AFB studies.

*** End Of Report ***

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

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