



# P K R JAIN HEALTHCARE INSTITUTE

NASIRPUR, Hissar Road, AMBALA CITY- (Haryana)

**A PIONEER DIAGNOSTIC CENTRE**

☎ 0171-2532620, 8222896961

✉ pkrjainhealthcare@gmail.com

**NAME** : Miss. SIMRAN  
**AGE/ GENDER** : 21 YRS/FEMALE  
**COLLECTED BY** :  
**REFERRED BY** :  
**BARCODE NO.** : 12503507  
**CLIENT CODE.** : P.K.R JAIN HEALTHCARE INSTITUTE  
**CLIENT ADDRESS** : NASIRPUR, HISSAR ROAD, AMBALA CITY - HARYANA

**PATIENT ID** : 1543055  
**REG. NO./LAB NO.** : 122407090014  
**REGISTRATION DATE** : 09/Jul/2024 10:15 AM  
**COLLECTION DATE** : 09/Jul/2024 10:53AM  
**REPORTING DATE** : 09/Jul/2024 12:59PM

Test Name	Value	Unit	Biological Reference interval
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## HAEMATOLOGY COMPLETE BLOOD COUNT (CBC)

### RED BLOOD CELLS (RBCS) COUNT AND INDICES

HAEMOGLOBIN (HB) by CALORIMETRIC	11.9 <sup>L</sup>	gm/dL	12.0 - 16.0
RED BLOOD CELL (RBC) COUNT by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE	3.94	Millions/cmm	3.50 - 5.00
PACKED CELL VOLUME (PCV) by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER	35.2 <sup>L</sup>	%	37.0 - 50.0
MEAN CORPUSCULAR VOLUME (MCV) by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER	89.3	fL	80.0 - 100.0
MEAN CORPUSCULAR HAEMOGLOBIN (MCH) by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER	30.2	pg	27.0 - 34.0
MEAN CORPUSCULAR HEMOGLOBIN CONC. (MCHC) by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER	33.8	g/dL	32.0 - 36.0
RED CELL DISTRIBUTION WIDTH (RDW-CV) by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER	12.8	%	11.00 - 16.00
RED CELL DISTRIBUTION WIDTH (RDW-SD) by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER	43.9	fL	35.0 - 56.0
MENTZERS INDEX by CALCULATED	22.66	RATIO	BETA THALASSEMIA TRAIT: < 13.0 IRON DEFICIENCY ANEMIA: >13.0
GREEN & KING INDEX by CALCULATED	29.01	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	7430	/cmm	4000 - 11000
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### DIFFERENTIAL LEUCOCYTE COUNT (DLC)

NEUTROPHILS by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY	84 <sup>H</sup>	%	50 - 70
LYMPHOCYTES by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY	10 <sup>L</sup>	%	20 - 40



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<b>EOSINOPHILS</b> by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY	0 <sup>L</sup>	%	1 - 6
<b>MONOCYTES</b> by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY	6	%	2 - 12
<b>BASOPHILS</b> by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY	0	%	0 - 1
<b><u>ABSOLUTE LEUKOCYTES (WBC) COUNT</u></b>			
<b>ABSOLUTE NEUTROPHIL COUNT</b> by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY	6241	/cmm	2000 - 7500
<b>ABSOLUTE LYMPHOCYTE COUNT</b> by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY	743 <sup>L</sup>	/cmm	800 - 4900
<b>ABSOLUTE EOSINOPHIL COUNT</b> by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY	0 <sup>L</sup>	/cmm	40 - 440
<b>ABSOLUTE MONOCYTE COUNT</b> by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY	446	/cmm	80 - 880
<b>ABSOLUTE BASOPHIL COUNT</b> by FLOW CYTOMETRY BY SF CUBE & MICROSCOPY	0	/cmm	0 - 110
<b><u>PLATELETS AND OTHER PLATELET PREDICTIVE MARKERS.</u></b>			
<b>PLATELET COUNT (PLT)</b> by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE	235000	/cmm	150000 - 450000
<b>PLATELETCRIT (PCT)</b> by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE	0.28	%	0.10 - 0.36
<b>MEAN PLATELET VOLUME (MPV)</b> by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE	12	fL	6.50 - 12.0
<b>PLATELET LARGE CELL COUNT (P-LCC)</b> by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE	92000 <sup>H</sup>	/cmm	30000 - 90000
<b>PLATELET LARGE CELL RATIO (P-LCR)</b> by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE	39	%	11.0 - 45.0
<b>PLATELET DISTRIBUTION WIDTH (PDW)</b> by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE	16	%	15.0 - 17.0
NOTE: TEST CONDUCTED ON EDTA WHOLE BLOOD			



  
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## 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)	NEGATIVE (-ve)	NEGATIVE (-ve)
TYPHI DOT ANTIBODY IgM by ICT (IMMUNOCHROMATOGRAPHY)	NEGATIVE (-ve)	NEGATIVE (-ve)

#### INTERPRETATION:

Typhoid fever is a life threatening illness caused by the bacterium *Salmonella typhi*. 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 SENSITIVITY 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 MEMBRANE PROTEIN (OMP) of the *Salmonella* 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.



  
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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 1<sup>st</sup> 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.

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

PKR



  
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