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NAME : Mr. GOURAV JAIN  
AGE/ GENDER : 39 YRS/MALE  
COLLECTED BY :  
REFERRED BY :  
BARCODE NO. : 01517154  
CLIENT CODE. : KOS DIAGNOSTIC LAB  
CLIENT ADDRESS : 6349/1, NICHOLSON ROAD, AMBALA CANTT

PATIENT ID : 1616620  
REG. NO./LAB NO. : 012409170053  
REGISTRATION DATE : 17/Sep/2024 07:03 PM  
COLLECTION DATE : 17/Sep/2024 07:07PM  
REPORTING DATE : 17/Sep/2024 07:32PM

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	12.5	gm/dL	12.0 - 17.0
RED BLOOD CELL (RBC) COUNT by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE	4.91	Millions/cmm	3.50 - 5.00
PACKED CELL VOLUME (PCV) by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER	39.5 <sup>L</sup>	%	40.0 - 54.0
MEAN CORPUSCULAR VOLUME (MCV) by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER	80.4	fL	80.0 - 100.0
MEAN CORPUSCULAR HAEMOGLOBIN (MCH) by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER	25.5 <sup>L</sup>	pg	27.0 - 34.0
MEAN CORPUSCULAR HEMOGLOBIN CONC. (MCHC) by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER	31.7 <sup>L</sup>	g/dL	32.0 - 36.0
RED CELL DISTRIBUTION WIDTH (RDW-CV) by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER	14.7	%	11.00 - 16.00
RED CELL DISTRIBUTION WIDTH (RDW-SD) by CALCULATED BY AUTOMATED HEMATOLOGY ANALYZER	44.2	fL	35.0 - 56.0
MENTZERS INDEX by CALCULATED	16.37	RATIO	BETA THALASSEMIA TRAIT: < 13.0 IRON DEFICIENCY ANEMIA: >13.0
GREEN & KING INDEX by CALCULATED	24.11	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	12370 <sup>H</sup>	/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	64	%	50 - 70
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LYMPHOCYTES <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	30	%	20 - 40
EOSINOPHILS <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	1	%	1 - 6
MONOCYTES <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	5	%	2 - 12
BASOPHILS <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	0	%	0 - 1
<b><u>ABSOLUTE LEUKOCYTES (WBC) COUNT</u></b>			
<b>ABSOLUTE NEUTROPHIL COUNT</b> <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	7917 <sup>H</sup>	/cmm	2000 - 7500
<b>ABSOLUTE LYMPHOCYTE COUNT</b> <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	3711	/cmm	800 - 4900
<b>ABSOLUTE EOSINOPHIL COUNT</b> <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	124	/cmm	40 - 440
<b>ABSOLUTE MONOCYTE COUNT</b> <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	618	/cmm	80 - 880
<b>ABSOLUTE BASOPHIL COUNT</b> <i>by FLOW CYTOMETRY BY SF CUBE &amp; MICROSCOPY</i>	0	/cmm	0 - 110
<b><u>PLATELETS AND OTHER PLATELET PREDICTIVE MARKERS.</u></b>			
<b>PLATELET COUNT (PLT)</b> <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE</i>	415000	/cmm	150000 - 450000
<b>PLATELETCRIT (PCT)</b> <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE</i>	0.34	%	0.10 - 0.36
<b>MEAN PLATELET VOLUME (MPV)</b> <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE</i>	8	fL	6.50 - 12.0
<b>PLATELET LARGE CELL COUNT (P-LCC)</b> <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE</i>	62000	/cmm	30000 - 90000
<b>PLATELET LARGE CELL RATIO (P-LCR)</b> <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE</i>	15	%	11.0 - 45.0
<b>PLATELET DISTRIBUTION WIDTH (PDW)</b> <i>by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE</i>	15.8	%	15.0 - 17.0
NOTE: TEST CONDUCTED ON EDTA WHOLE BLOOD			



  
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### GLYCOSYLATED HAEMOGLOBIN (HbA1c)

GLYCOSYLATED HAEMOGLOBIN (HbA1c): WHOLE BLOOD by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)	5.8	%	4.0 - 6.4
ESTIMATED AVERAGE PLASMA GLUCOSE by HPLC (HIGH PERFORMANCE LIQUID CHROMATOGRAPHY)	119.76	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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### IMMUNOPATHOLOGY/SEROLOGY

#### IMMUNOGLOBIN IgE

#### IMMUNOGLOBIN-E (IgE): SERUM

941<sup>H</sup>

IU/mL

0.0 - 200.0

by CLIA (CHEMILUMINESCENCE IMMUNOASSAY)

#### INTERPRETATION:

#### COMMENTS:

1. IgE antibodies mediate allergic diseases by sensitizing mast cells and basophils to release histamine and other inflammatory mediators on exposure to allergens.
2. Total IgE represents the sum of all the specific IgE, which in turn includes many groups of specific IgE & allergen specific IgE is just one such group amongst them.
3. Total IgE determination constitutes a screening method of atopic diseases, although within range values of total IgE do not exclude the existence of atopy and high values of total IgE are not pathognomonic of atopy by themselves.
4. Antigen-specific IgE is the next step in the in vitro identification of the responsible allergen. There are more than 400 characterized known allergens available for in vitro diagnostic tests and testing to be selected based on symptoms, clinical & environmental details.
5. In adults, Total IgE values between 100 to 1000 IU/ml may not correlate with allergen specific IgE, where the patients may be just sensitized to different allergen or often the cause for high IgE could be non-atopic.
6. Specific IgE results obtained with the different methods vary significantly, hence followup testing to be performed using one laboratory only.
7. The probability of finding an increased level of IgE in serum in a patient with allergic disease varies directly with the number of different allergens to which the patient is sensitized.
8. A normal level of IgE in serum does not eliminate the possibility of allergic disease; this occurs if there is sensitivity to a limited number of allergens and limited end organ involvement.

#### INCREASED:

1. Atopic/Non Atopic Allergy
2. Parasitic Infection.
3. IgE Myeloma
4. Allergic bronchopulmonary aspergillosis.
5. The rare hyper IgE syndrome.
6. Immunodeficiency States and Autoimmune states

#### USES:

1. Evaluation of children with strong family history of allergies and early clinical signs of disease.
2. Evaluation of children and adults suspected of having allergic respiratory disease to establish the diagnosis and define the allergens
3. To confirm clinical expression of sensitivity to foods in patients with Anaphylactic sensitivity or with Asthma, Angioedema or Cutaneous disease
4. To evaluate sensitivity to insect venom allergens particularly as an aid in defining venom specificity in those cases in which skin tests are equivocal
5. To confirm the presence of IgE antibodies to certain occupational allergens

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



  
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