

Unit of Narayana Health

# **DEPARTMENT OF LABORATORY MEDICINE**

**Final Report** 

 Patient Name :
 Mr Chandrasekharaiah Mattam
 MRN : 2015000000538
 Gender/Age : MALE , 40y (05/06/1983)

 Collected On :
 10/06/2023 09:32 AM
 Received On :
 10/06/2023 12:55 PM
 Reported On :
 10/06/2023 07:42 PM

Barcode : 022306100508 Specimen : Whole Blood - ESR Consultant : EXTERNAL(EXTERNAL)

Sample adequacy : Satisfactory Visit No : OP-001 Patient Mobile No : 7019659530

HEMATOLOGY				
Test	Unit	<b>Biological Reference Interval</b>		
Erythrocyte Sedimentation Rate (ESR)	14 H	mm/1hr	0.0-10.0	

(Westergren Method)

Interpretation Notes

ESR high - Infections, chronic disorders,, plasma cell dyscrasias.
 DISCLAIMER:All the laboratory findings should mandatorily interpreted in correlation with clinical findings by a medical expert

# **COMPLETE BLOOD COUNT (CBC)**

Haemoglobin (Hb%) (Photometric Measurement)	15.4	g/dL	13.0-17.0
Red Blood Cell Count (Electrical Impedance)	5.12	million/µl	4.5-5.5
PCV (Packed Cell Volume) / Hematocrit (Calculated)	44.9	%	40.0-50.0
MCV (Mean Corpuscular Volume) (Derived)	87.6	fL	83.0-101.0
MCH (Mean Corpuscular Haemoglobin) (Calculated)	30.1	pg	27.0-32.0
MCHC (Mean Corpuscular Haemoglobin Concentration) (Calculated)	34.4	%	31.5-34.5
Red Cell Distribution Width (RDW) (Derived)	13.7	%	11.6-14.0
Platelet Count (Electrical Impedance Plus Microscopy)	326	10 <sup>3</sup> /µL	150.0-450.0
Total Leucocyte Count(WBC) (Electrical Impedance)	8.6	10 <sup>3</sup> /µL	4.0-10.0
DIFFERENTIAL COUNT (DC)			
Neutrophils (VCS Technology Plus Microscopy)	68.4	%	40.0-75.0
Lymphocytes (VCS Technology Plus Microscopy)	23.1	%	20.0-40.0

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Appointments 1800-309-0309 Emergencies 97384 97384



Patient Name : Mr Chandrasekharaiah Mattam	MRN : 20150000	000538 Gender/Age : N	IALE , 40y (05/06/1983)	
Monocytes (VCS Technology Plus Microscopy)	6.6	%	2.0-10.0	
Eosinophils (VCS Technology Plus Microscopy)	1.6	%	1.0-6.0	
Basophils (VCS Technology Plus Microscopy)	0.3	%	0.0-2.0	
Absolute Neutrophil Count (Calculated)	5.89	x10 <sup>3</sup> cells/µl	2.0-7.0	
Absolute Lympocyte Count (Calculated)	1.99	x10 <sup>3</sup> cells/µl	1.0-3.0	
Absolute Monocyte Count (Calculated)	0.57	x10 <sup>3</sup> cells/µl	0.2-1.0	
Absolute Eosinophil Count (Calculated)	0.14	x10 <sup>3</sup> cells/µl	0.02-0.5	
Absolute Basophil Count (Calculated)	0.03	-	-	

As per the recommendation of International Council for Standardization in Hematology, the differential counts are additionally being reported as absolute numbers.

#### **Interpretation Notes**

 Haemoglobin, RBC Count and PCV: If below reference range, indicates Anemia. Further evaluation is suggested. RBC Indices aid in typing of anemia.

WBC Count: If below reference range, susceptibility to infection.

If above reference range- Infection\*

If very high in lakhs-Leukemia

Neutrophils -If above reference range-acute infection, mostly bacterial

Lymphocytes -If above reference range-chronic infection/ viral infection

Monocytes -If above reference range- TB, Typhoid, UTI

Eosinophils -If above reference range -Allergy, cough, Common cold, Asthma & worms

Basophils - If above reference range, Leukemia, allergy

Platelets: If below reference range- bleeding disorder, Dengue, drug- induced, malignancies

\* In bacterial infection with fever total WBC count increases.

Eg Tonsillitis, Sinusitis, Bronchitis, Pneumonia, Appendicitis, UTI -12000-25000 cells/cumm.

In typhoid and viral fever WBC may be normal.

DISCLAIMER: All the laboratory findings should mandatorily interpreted in correlation with clinical findings by a medical expert.

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Dr. Deepak M B MD, PDF, Hematopathology Consultant

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Page 2 of 7

Appointments 1800-309-0309 Emergencies 97384 97384

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BIOCHEMISTRY				
Test	Result	Unit	<b>Biological Reference Interval</b>	
Fasting Blood Sugar (FBS) (Colorimetric - Glucose Oxidase Peroxidase)	88	mg/dL	70 to 99 : Normal 100 to 125 : Pre-diabetes =>126 : Diabetes ADA standards 2020	
<b>Post Prandial Blood Sugar (PPBS)</b> (Colorimetric - Glucose Oxidase Peroxidase)	96	mg/dL	70 to 139 : Normal 140 to 199 : Pre-diabetes =>200 : Diabetes ADA standards 2020	
HBA1C				
HbA1c (HPLC NGSP Certified)	5.3	%	Normal: 4.0-5.6 Prediabetes: 5.7-6.4 Diabetes: => 6.5 ADA standards 2020	
Estimated Average Glucose (Calculated)	105.41	-	-	

### Interpretation:

1. HbA1C above 6.5% can be used to diagnose diabetes provided the patient has symptoms. If the patient does not have symptoms with HbA1C>6.5%, repeat measurement on further sample. If the repeat test result is <6.5%, consider as diabetes high risk and repeat measurement after 6 months.

2. HbA1C measurement is not appropriate in diagnosing diabetes in children, suspicion of type 1 diabetes, symptoms of diabetes for less than 2 months, pregnancy, hemoglobinopathies, medications that may result sudden increase in glucose, anemia, renal failure, HIV infection, malignancies, severe chronic hepatic, and renal disease.

3. Any sample with >15% should be suspected of having a haemoglobin variant.

# **SERUM CREATININE**

<b>Serum Creatinine</b> (Two Point Rate - Creatinine Aminohydrolase)	0.63 L	mg/dL	0.66-1.25
eGFR (Calculated)	141.1	mL/min/1.73m <sup>2</sup>	Indicative of renal impairment < 60 Note:eGFR is inaccurate for Hemodyamically unstable patients eGFR is not applicable for less than 18 years of age.
<b>Blood Urea Nitrogen (BUN)</b> (Endpoint /Colorimetric – Urease)	6 L	mg/dL	9.0-20.0
Serum Uric Acid (Colorimetric - Uricase, Peroxidase)	5.94	mg/dL	3.5-8.5
LIPID PROFILE (CHOL,TRIG,HDL,LDL,VLDL)			
Cholesterol Total (Colorimetric - Cholesterol Oxidase)	136	mg/dL	Desirable: < 200 Borderline High: 200-239 High: > 240

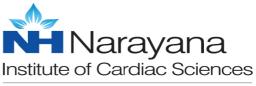


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Unit of Narayana Health

Patient Name : Mr Chandrasekharaiah Mattam MR	N : 20150000005	38 Gender/Age : MALE	, 40y (05/06/1983)
Triglycerides (Colorimetric - Lip/Glycerol Kinase)	247 H	mg/dL	Normal: < 150 Borderline: 150-199 High: 200-499 Very High: > 500
HDL Cholesterol (HDLC) (Colorimetric: Non HDL Precipitation Phosphotungstic Acid Method)	24 L	mg/dL	40.0-60.0
Non-HDL Cholesterol (Calculated)	112.0	mg/dL	Desirable: < 130 Above Desirable: 130-159 Borderline High: 160-189 High: 190-219 Very High: => 220
LDL Cholesterol (Colorimetric)	83 L	mg/dL	Optimal: < 100 Near to above optimal: 100-129 Borderline High: 130-159 High: 160-189 Very High: > 190
VLDL Cholesterol (Calculated)	49.4 H	mg/dL	0.0-40.0
Cholesterol /HDL Ratio (Calculated)	5.7 H	-	0.0-5.0
Prostate Specific Antigen (PSA) (Enhanced Chemiluminesence)	0.361	ng/mL	0.0-2.5

#### **Interpretation Notes**

• PSA is a recommended test for detection of prostate cancer along with Digital Rectal Examination (DRE) in males above 50 years of age.

PSA levels are increased in Prostate cancer, Benign Prostatic Hyperplasia, Prostitits, Genitourinary infections. False negative/positive results are observed in patients receiving mouse monoclonal antibodies for diagnosis or therapy. All values should be correlated with clinical findings and results of other investigations. **Note:** Patient results determined by assay using different manufacturers or methods may not be comparable.

# **THYROID PROFILE (T3, T4, TSH)**

Tri lodo Thyronine (T3) (Enhanced Chemiluminesence)	1.39	ng/mL	0.97-1.69
Thyroxine (T4) (Enhanced Chemiluminesence)	10.8	μg/dl	5.53-11.0
TSH (Thyroid Stimulating Hormone) (Enhanced Chemiluminesence)	3.551	μIU/mL	0.4-4.049

#### **Interpretation Notes**

• TSH levels are subjected 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. Alteration in concentration of Thyroid hormone binding protein can profoundly affect Total T3 and/or Total T4 levels especially in pregnancy and in

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Appointments 1800-309-0309 Emergencies 97384 97384

Page 4 of 7

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patients on steroid therapy. Unbound fraction (Free,T4 /Free,T3) of thyroid hormone is biologically active form and correlate more closely with clinical status of the patient than total T4/T3 concentration.

#### LIVER FUNCTION TEST(LFT) Bilirubin Total (Colorimetric -Diazo Method) mg/dL 0.2-1.3 0.90 mg/dL 0.0-0.3 Conjugated Bilirubin (Direct) (Dual Wavelength -0.00 Reflectance Spectrophotometry) 0.0-1.1 Unconjugated Bilirubin (Indirect) (Calculated) mg/dL 0.9 gm/dL 6.3-8.2 Total Protein (Colorimetric - Biuret Method) 7.70 gm/dL 3.5-5.0 Serum Albumin (Colorimetric - Bromo-Cresol Green) 4.90 Serum Globulin (Calculated) gm/dL 2.0-3.5 2.8 1.0-2.1 Albumin To Globulin (A/G)Ratio (Calculated) 1.76 U/L SGOT (AST) (Multipoint-Rate With P-5-P (pyridoxal-17.0-59.0 29 5-phosphate)) U/L <50.0 SGPT (ALT) (Multipoint-Rate With P-5-P (pyridoxal-5- 24 phosphate)) U/L 38.0-126.0 Alkaline Phosphatase (ALP) (Multipoint-Rate - P-84 nitro Phenyl Phosphate, AMP Buffer) Gamma Glutamyl Transferase (GGT) (Multipoint 18 U/L 15.0-73.0 Rate - L-glutamyl-p-nitroanilide (Szasz Method))

#### **Interpretation Notes**

Indirect Bilirubin result is a calculated parameter (Indirect Bilirubin = Total Bilirubin - Direct Bilirubin).
 Indirect bilirubin result includes the delta bilirubin fraction also. Delta Bilirubin is the bilirubin which is covalently bound to albumin.
 Delta Bilirubin is not expected to be present in healthy adults or neonates.

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Dr. Anushre Prasad

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Page 5 of 7





Patient Name : Mr Chandrasekharaiah Mattam MR	N : 20150000005	538 Gender/Age : MALI	E , 40y (05/06/1983)
MBBS,MD, Biochemistry			
Consultant Biochemistry	Incharge, Consultant Biochemistry		
	CLINICAL PAT	HOLOGY	
Test	Result	Unit	<b>Biological Reference Interval</b>
Urine For Sugar (Fasting) (Enzyme Method (GOD POD))	Not Present	-	-
STOOL ROUTINE EXAMINATION			
PHYSICAL EXAMINATION			
Colour	Yellowish	-	-
Consistency	Semi Solid	-	-
Mucus	Absent	-	-
Blood	Absent	-	-
CHEMICAL EXAMINATION			
Stool For Occult Blood (Standard Guaiac Method)	Negative	-	-
Reaction	Alkaline	-	-
MICROSCOPE EXAMINATION			
Ova	Not Seen	-	-
Cyst Of Protozoa	Not Seen	-	-
Pus Cells	3-4	/hpf	0-5
<b>Urine For Sugar (Post Prandial)</b> (Enzyme Method (GOD POD))	Not Present	-	-

--End of Report-

# Narayana Institute of Cardiac Sciences



Page 6 of 7

Appointments

1800-309-0309 Emergencies 97384 97384

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Dr. Sudarshan Chougule MBBS, MD, Pathology Consultant & Head - Hematology & Flow Cytometry

# Note

- Abnormal results are highlighted.
- Results relate to the sample only.
- Kindly correlate clinically. (Fasting Blood Sugar (FBS), -> Auto Authorized) (, -> Auto Authorized) (LFT, -> Auto Authorized) (Uric Acid, -> Auto Authorized) (Blood Urea Nitrogen (Bun), -> Auto Authorized)
  - (Prostate Specific Antigen (Psa), -> Auto Authorized)
  - (Post Prandial Blood Sugar (PPBS) -> Auto Authorized)





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Appointments 1800-309-0309 Emergencies 97384 97384

Page 7 of 7



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**Final Report** 

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Collected On : 10/06/2023 09:32 AM Received On : 10/06/2023 12:54 PM Reported On : 10/06/2023 02:20 PM

Barcode : 1B2306100020 Specimen : Whole Blood Consultant : EXTERNAL(EXTERNAL)

Sample adequacy : Satisfactory Visit No : OP-001 Patient Mobile No : 7019659530

# NARAYANA HRUDAYALAYA BLOOD CENTRE

Test	Result	Unit
BLOOD GROUP & RH TYPING		
Blood Group (Column Agglutination Technology)	0	-
RH Typing (Column Agglutination Technology)	Positive	-

Dr. Prathip Kumar B R MBBS, MD, Immunohaematology & Blood Transfusion Consultant

# **CLINICAL PATHOLOGY**

Test	Result	Unit	<b>Biological Reference Interval</b>
URINE ROUTINE & MICROSCOPY			
PHYSICAL EXAMINATION			
Colour	Yellow	-	-
Appearance	Clear	-	-
CHEMICAL EXAMINATION			
pH(Reaction) (pH Indicator Method)	7.0	-	4.5-7.5
Sp. Gravity (Refractive Index)	1.002	-	1.002 - 1.030
Protein (Automated Protein Error Or Ph Indicator)	Not Present	-	Not Present
Urine Glucose (Enzyme Method (GOD POD))	Not Present	-	Not Present

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Page 1 of 3





Patient Name : Mr Chandrasekharaiah Mattam	MRN : 20150000005	38 Gender/Age : MALE	, 40y (05/06/1983)
Ketone Bodies (Nitroprusside Method)	Not Present	-	Not Present
Bile Salts (Azo Coupling Method)	Not Present	-	Not Present
Bile Pigment (Bilirubin) (Azo Coupling Method)	Not Present	-	Not Present
Urobilinogen (Azo Coupling Method)	Normal	-	Normal
<b>Urine Leucocyte Esterase</b> (Measurement Of Leukocyte Esterase Activity)	Not Present	-	Not Present
Blood Urine (Peroxidase Reaction)	Not Present	-	Not Present
Nitrite (Gries Method)	Not Present	-	Not Present
MICROSCOPIC EXAMINATION			
Pus Cells	0.2	/hpf	0-5
RBC	0.3	/hpf	0-4
Epithelial Cells	0.1	/hpf	0-6
Crystals	0.0	/hpf	0-2
Casts	0.00	/hpf	0-1
Bacteria	6.4	/hpf	0-200
Yeast Cells	0.0	/hpf	0-1
Mucus	Not Present	-	Not Present

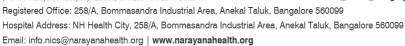
# Interpretation Notes

• Since the analytical methodology of Urine Microscopy is Flow cytometry based and FDA approved the results of automated urine microscopy which includes RBCs, WBCs Epithelial cells etc are being reported in decimal fraction. Rounding off the value to nearest whole number is suggested.

--End of Report-

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1800-309-0309

Emergencies 97384 97384

Page 2 of 3

Appointments



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Page 3 of 3

Appointments 1800-309-0309 Emergencies 97384 97384

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