DEPARTMENT OF LABORATORY MEDICINE

Final Report

Patient Name : Mr Siddagangaiah B S MRN : 20150000000222 Gender/Age : MALE , 45y (20/06/1977)

Collected On : 04/05/2023 10:25 AM Received On : 04/05/2023 12:56 PM Reported On : 04/05/2023 02:21 PM

Barcode : 012305040947 Specimen : Plasma Consultant : EXTERNAL(EXTERNAL)

Sample adequacy : Satisfactory Visit No : OP-001 Patient Mobile No : 9902255903

BIOCHEMISTRY

Test	Result	Unit	Biological Reference Interval
Fasting Blood Sugar (FBS) (Colorimetric - Glucose Oxidase Peroxidase)	**194 H**	mg/dL	70 to 99 : Normal 100 to 125 : Pre-diabetes =>126 : Diabetes ADA standards 2020
Post Prandial Blood Sugar (PPBS) (Colorimetric - Glucose Oxidase Peroxidase)	**217 H**	mg/dL	70 to 139 : Normal 140 to 199 : Pre-diabetes =>200 : Diabetes ADA standards 2020
HBA1C			
HbA1c (HPLC NGSP Certified)	**12.9 H**	%	Normal: 4.0-5.6 Prediabetes: 5.7-6.4 Diabetes: => 6.5 ADA standards 2020
Estimated Average Glucose (Calculated)	323.54	-	-

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			
Serum Creatinine (Two Point Rate - Creatinine Aminohydrolase)	**0.65 L**	mg/dL	0.66-1.25
eGFR (Calculated)	132.9	mL/min/1.73m^2	Indicative of renal impairment < 60 Note:eGFR is inaccurate for Hemodyamically unstable patients eGFR is not applicable for less than 18 years of age.
Blood Urea Nitrogen (BUN) (Endpoint /Colorimetric – Urease)	10	mg/dL	9.0-20.0

Serum Uric Acid (Colorimetric - Uricase,Peroxidase)	4.8	mg/dL	3.5-8.5

LIPID PROFILE (CHOL,TRIG,HDL,LDL,VLDL)

Cholesterol Total (Colorimetric - Cholesterol Oxidase)	**202 H**	mg/dL	Desirable: < 200 Borderline High: 200-239 High: > 240
Triglycerides (Colorimetric - Lip/Glycerol Kinase)	**231 H**	mg/dL	Normal: < 150 Borderline: 150-199 High: 200-499 Very High: > 500
HDL Cholesterol (HDLC) (Colorimetric: Non HDL Precipitation Phosphotungstic Acid Method)	**26 L**	mg/dL	40.0-60.0
Non-HDL Cholesterol (Calculated)	**176.0 H**	mg/dL	Desirable: < 130 Above Desirable: 130-159 Borderline High: 160-189 High: 190-219 Very High: => 220
LDL Cholesterol (Colorimetric)	135	mg/dL	Optimal: < 100 Near to above optimal: 100-129 Borderline High: 130-159 High: 160-189 Very High: > 190
VLDL Cholesterol (Calculated)	**46.2 H**	mg/dL	0.0-40.0
Cholesterol /HDL Ratio (Calculated)	**7.8 H**	-	0.0-5.0
Prostate Specific Antigen (PSA) (Enhanced Chemiluminesence)	0.374	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 Iodo Thyronine (T3) (Enhanced Chemiluminesence)	1.15	ng/mL	0.97-1.69
Thyroxine (T4) (Enhanced Chemiluminesence)	7.57	µg/dl	5.53-11.0

TSH (Thyroid Stimulating Hormone) (Enhanced Chemiluminesence)	**5.704 H**	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 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)	0.59	mg/dL	0.2-1.3
Conjugated Bilirubin (Direct) (Dual Wavelength - Reflectance Spectrophotometry)	0.10	mg/dL	0.0-0.3
Unconjugated Bilirubin (Indirect) (Calculated)	0.49	mg/dL	0.0-1.1
Total Protein (Colorimetric - Biuret Method)	6.90	gm/dL	6.3-8.2
Serum Albumin (Colorimetric - Bromo-Cresol Green)	3.90	gm/dL	3.5-5.0
Serum Globulin (Calculated)	3.01	gm/dL	2.0-3.5
Albumin To Globulin (A/G)Ratio (Calculated)	1.3	-	1.0-2.1
SGOT (AST) (Multipoint-Rate With P-5-P (pyridoxal-5-phosphate))	21	U/L	17.0-59.0
SGPT (ALT) (Multipoint-Rate With P-5-P (pyridoxal-5-phosphate))	19	U/L	<50.0
Alkaline Phosphatase (ALP) (Multipoint-Rate - P-nitro Phenyl Phosphate, AMP Buffer)	56	U/L	38.0-126.0
Gamma Glutamyl Transferase (GGT) (Multipoint Rate - L-glutamyl-p-nitroanilide (Szasz Method))	17	U/L	15.0-73.0

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.

Dr. Anushre Prasad
MBBS,MD, Biochemistry
Consultant Biochemistry

Mrs. Latha B S
MSc, Mphil, Biochemistry
Incharge, Consultant Biochemistry

HEMATOLOGY

Test	Result	Unit	Biological Reference Interval
Erythrocyte Sedimentation Rate (ESR) (Westergren Method)	**20 H**	mm/1hr	0.0-10.0

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**

Dr. Hema S
MD, DNB, Pathology
Associate Consultant

HEMATOLOGY

Test	Result	Unit	Biological Reference Interval
COMPLETE BLOOD COUNT (CBC)			
Haemoglobin (Hb%) (Photometric Measurement)	15.0	g/dL	13.0-17.0
Red Blood Cell Count (Electrical Impedance)	4.98	million/µl	4.5-5.5
PCV (Packed Cell Volume) / Hematocrit (Calculated)	42.6	%	40.0-50.0
MCV (Mean Corpuscular Volume) (Derived)	85.5	fL	83.0-101.0

MCH (Mean Corpuscular Haemoglobin) (Calculated)	30.0	pg	27.0-32.0
MCHC (Mean Corpuscular Haemoglobin Concentration) (Calculated)	**35.1 H**	%	31.5-34.5
Red Cell Distribution Width (RDW) (Derived)	**14.1 H**	%	11.6-14.0
Platelet Count (Electrical Impedance Plus Microscopy)	166	$10^3/\mu L$	150.0-450.0
Total Leucocyte Count(WBC) (Electrical Impedance)	5.8	$10^3/\mu L$	4.0-10.0
DIFFERENTIAL COUNT (DC)			
Neutrophils (VCS Technology Plus Microscopy)	50.9	%	40.0-75.0
Lymphocytes (VCS Technology Plus Microscopy)	36.7	%	20.0-40.0
Monocytes (VCS Technology Plus Microscopy)	7.1	%	2.0-10.0
Eosinophils (VCS Technology Plus Microscopy)	4.5	%	1.0-6.0
Basophils (VCS Technology Plus Microscopy)	0.8	%	0.0-2.0
Absolute Neutrophil Count (Calculated)	2.96	$x10^3$cells/µl	2.0-7.0
Absolute Lympocyte Count (Calculated)	2.13	$x10^3$cells/µl	1.0-3.0
Absolute Monocyte Count (Calculated)	0.42	$x10^3$cells/µl	0.2-1.0
Absolute Eosinophil Count (Calculated)	0.27	$x10^3$cells/µl	0.02-0.5
Absolute Basophil Count (Calculated)	0.05	-	-

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.**

Dr. Deepak M B
MD, PDF, Hematopathology
Consultant

CLINICAL PATHOLOGY

Test	Result	Unit
Urine For Sugar (Post Prandial) (Enzyme Method (GOD POD))	Present +++	-
Urine For Sugar (Fasting) (Enzyme Method (GOD POD))	Present +++	-

--End of Report-

Dr. Hema S
MD, DNB, Pathology
Associate Consultant

Note

- Abnormal results are highlighted.
- Results relate to the sample only.
- Kindly correlate clinically.

(Post Prandial Blood Sugar (PPBS), -> Auto Authorized)

(Lipid Profile, -> Auto Authorized)

(LFT, -> Auto Authorized)

(Uric Acid, -> Auto Authorized)

(Blood Urea Nitrogen (Bun), -> Auto Authorized)

(Prostate Specific Antigen (Psa), -> Auto Authorized)

(Fasting Blood Sugar (FBS) -> Auto Authorized)

MC-2688

DEPARTMENT OF LABORATORY MEDICINE

Final Report

Patient Name : Mr Siddagangaiah B S MRN : 20150000000222 Gender/Age : MALE , 45y (20/06/1977)

Collected On : 04/05/2023 08:28 AM Received On : 04/05/2023 12:59 PM Reported On : 04/05/2023 01:33 PM

Barcode : 1B2305040013 Specimen : Whole Blood Consultant : EXTERNAL(EXTERNAL)

Sample adequacy : Satisfactory Visit No : OP-001 Patient Mobile No : 9902255903

NARAYANA HRUDAYALAYA BLOOD CENTRE

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

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

CLINICAL PATHOLOGY

Test	Result	Unit	Biological Reference Interval
URINE ROUTINE & MICROSCOPY			
PHYSICAL EXAMINATION			
Colour	STRAW	-	-
Appearance	Clear	-	-
CHEMICAL EXAMINATION			
pH(Reaction) (pH Indicator Method)	5.0	-	4.5-7.5
Sp. Gravity (Refractive Index)	1.025	-	1.002 - 1.030
Protein (Automated Protein Error Or Ph Indicator)	Not Present	-	Not Present
Urine Glucose (Enzyme Method (GOD POD))	**Present +++**	-	Not Present

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
Urine Leucocyte Esterase (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	2.2	/hpf	0-5
RBC	0.3	/hpf	0-4
Epithelial Cells	1.6	/hpf	0-6
Crystals	2.3	/hpf	0-2
Casts	0.04	/hpf	0-1
Bacteria	12.3	/hpf	0-200
Yeast Cells	0.3	/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-

Dr. Hema S
MD, DNB, Pathology
Associate Consultant

Note

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- Results relate to the sample only.
- Kindly correlate clinically.